Appendix A

Traffic

Memo

Date:	Tuesday, August 29, 2023		
Project:	NDOT US-275 Norfolk-Wisner Project No. 275-6(1052) CN 32319	HDR Project No.	10165712
To:	NDOT		
From:	HDR		
Subject:	Traffic Addendum		

Introduction

The Nebraska Department of Transportation (NDOT) is planning to improve 16 miles of US Highway 275 (US-275) in Stanton and Cuming Counties, Nebraska, referred to as Norfolk – Wisner. The Norfolk – Wisner Project would expand the existing two-lane highway to a four-lane expressway (see Appendix A, Figure 1, Project Location). The Project starts 0.30 mile west of the junction of US-275 and Nebraska Highway 57 (N-57) and extends east to 0.25 mile southeast of the west corporate boundary of Wisner. Construction may begin and/or end approximately 500 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement.

Background

HDR prepared a Traffic Analysis and Geometrics Recommendations Memo dated November 7, 2019 for the Norfolk – Wisner Project. This memo provided traffic engineering recommendations to support preliminary roadway design. Recommendations for lane geometrics and storage lengths of auxiliary lanes at intersections were developed from the more conservative of traffic operations analysis modeling or design guidance from NDOT's Roadway Design Manual.

The purpose of this memo is to document the new average annual daily traffic (AADT) counts available for the US-275 Norfolk-Wisner project area along with the resulting changes to project traffic forecasts. This memo captures the difference in volumes and confirms that the results and conclusions of the 2019 Traffic Analysis and Geometrics Recommendations Memo are still valid.

Data Sources

NDOT provided updated AADT counts for existing 2022 traffic count data. The updated AADT counts were located at two locations along US-275

1. N-15 (West Junction) to N-15 (East Junction)

2. N-15 (East Junction) to N-51

The Nebraska Statewide Model (NSM) was utilized to develop traffic forecasts in the corridor. The NSM employs a data-driven approach, with the ability to forecast future traffic volume flows for the 2045 future roadway network. The project team used the NSM model to forecast growth in vehicle traffic at locations without a recent traffic count.

Volume Update

The updated AADT volumes are somewhat lower but predominantly fall within the previously observed range of AADT volumes collected in 2018 which were used in the original analysis. **Table 1** displays the AADT data utilized for the Traffic Analysis and Geometrics Recommendations Memo in 2019. **Table 2** shows the updated AADT data developed in 2022, offering a comparison to the initial AADT from **Table 1**. The AADT volumes will be used to estimate future peak hour traffic volumes for our analysis.

Table 1. 2018 AADT and Projected 2044 Traffic Volumes

US-275 Roadway Segment	2018 AADT[a]	2018 Percent Heavy Commercial Vehicles (HCV)[b]	2018 HCV	2044 No Build AADT	2044 Percent HCV[c]	2044 HCV
N-57 to N-15 West Jct	5,525–5,570	20–23	1,125–1,255	7,017–7,311	20	1,388–1,492
N-15 West Jct to N-15 East Jct	5,525–6,630	18–20	995–1,265	7,313	20	1,492
N-15 East Jct to N-51	4,975–6,000	17–18	865–1,020	6,786–7,313	20	1,350–1,492
N-51 to 18th Street in Wisner	4,975–6,280	13–17	815–865	6,786–6,971	20	1,350–1,394

Table 2. Updated 2022 AADT and Projected 2045 Traffic Volumes

US-275 Roadway Segment	2022 AADT[a]	2022 Percent HCV[b]	2022 HCV	2045 No Build AADT	2045 Percent HCV[c]	2045 HCV
N-57 to N-15 West Jct	4351	19	816	5783	19	1,110
N-15 West Jct to N-15 East Jct	5,310	19	995	7,059	19	1,356
N-15 East Jct to N-51	5080	16	800	6,829	17	1,161
N-51 to 18th Street in Wisner	5646	16	889	7590	17	1,290

[a] AADT = annual average daily traffic, vehicles per day.
[b] HCV = heavy commercial vehicles.
[c] Percent HCV equals HCV divided by No Build AADT.

Geometric Recommendations

The slightly lower volumes shown in Tabel 2 do not alter the geometric recommendations from 2019. Recommendations from the Traffic Analysis and Geometrics Recommendations Memo are listed below along with a brief description of how these recommendations were reached.

Median breaks: NDOT's Roadway Design Manual identifies recommended median breaks based on site conditions, including classification of roadway, pavement conditions, and nearby access points.

- Median break recommendations did not utilize AADT or peak hour volumes in decision making process.

Turn lane geometrics: Turning lane recommendations were identified for eastbound and westbound left and right turns along US-275 based on the NDOT Roadway Design Manual standards.

- Turn lanes were recommended based on NDOT's standard for exclusive turn lanes if turning volumes exceed 100 vehicles per hour (vph) and space was available.
    - Turn lane recommendations utilized peak hour traffic volumes for instances where turn lanes were warranted based on a volume threshold. The slightly lower AADT volumes do not warrant changes to the turn lane recommendations.
- Turn lanes were also recommended based on NDOT's discretion if there was reason to believe that a turn lane would provide a safety benefit due to separation of slowing traffic from the left / passing lane.

Storage length of auxiliary lanes: The NDOT Roadway Design Manual recommends storage length minimum of 100 feet when truck percentages exceed 10%.

- The updated AADT volumes reflect truck percentages that similar to the 2019 estimates and are well above 10%. The minimum storage length recommendations still apply to storage length recommendations. The Traffic Analysis and Geometrics Recommendations Memo only recommended storage lengths that exceeded 100 feet if the existing storage length exceeded 100 feet – that recommendation also still applies.

Conclusion

In conclusion, the updated AADT volumes are lower but generally align with the previous Traffic Analysis and Geometrics Recommendations Memo in 2019, indicating that geometric recommendations from a traffic engineering perspective are unchanged.

Memo

Date:	Thursday, November 07, 2019
Project:	S-275-6(1052) Norfolk – Wisner C.N. 32319
To:	Nebraska DOT
From:	HDR
Subject:	Traffic Analysis and Geometrics Recommendations Memo

This memo outlines the traffic recommendation and supporting traffic analysis conducted for US Highway 275 (US-275) roadway design and environmental permitting for the Nebraska Department of Transportation (NDOT). The traffic analysis evaluated the future design year segment and intersection performance against industry performance measures. Based on those analyses, and in association with NDOT design criteria, recommendations are proposed from a traffic engineering perspective to support preliminary roadway design. Performance evaluations were completed using the Two Way Stopped Control, Two-Lane Highways, and Multilane Highways software from the Highway Capacity Software (HCS) version 7 developed by McTrans. Recommendations for lane geometrics and storage lengths of auxiliary lanes at intersections were developed from the more conservative of traffic operations analysis modeling or design guidance from the NDOT's Roadway Design Manual.

The project team agreed that traffic operations analysis and safety input would be limited to highway segments and the following six intersections:

- US-275 & N-57
- US-275 & N-15 (West Junction)
- US-275 & 575th Avenue
- US-275 & N-15 (East Junction)
- US-275 & S Road
- US-275 & N-51

Segment Analysis

US-275 currently operates as a two-lane, high speed rural highway between N-57 and 18th Street North in Wisner. The project scope will bring the corridor to a 4-lane divided configuration. The segments along the project were analyzed by NDOT Traffic Engineering for

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crash history finding that one segment of seven segments analyzed exceed statewide average crash rates. The seven segments analyzed were:

- RP 85.89 (Begin US-275 Study) to RP 86.08 – excluding Jct w/ N-57
- RP 86.08 to RP 94.10 – excluding W Jct w/ N-15
- RP 94.10 to 95.09 – excluding Intsx w/ 575th Ave
- RP 95.09 to RP 96.10 – excluding E Jct w/ N-15
- RP 96.15 to RP 100.83 – excluding Jct w/ N-51 – **Exceeds statewide average**
- RP 100.83 to RP 101.49 (Wisner E Corp Limits)
- RO 101.49 to RP 102.00 (End of US-275 Study)

The 2019 turning movement volume and classification counts provided by NDOT were used to develop the design hour volume for all vehicles, PHF, and the percentage of trucks during peak hour analyzed. To facilitate traffic operations analysis, the roadway was broken into seven segments with each segment starting point and ending point located at an intersection where turning movement counts were available or at a change in lane geometry. The roadway segmentation for traffic operations analysis is depicted in Figure 1. The 2024, 2029, 2034, and 2044 estimated turning movement counts provided by NDOT were used to derive the design hour volume. Table 1 shows the design / peak hour volume, truck percentage, and PHF for each segment for the five years analyzed. The base speed was assumed to be the posted speed limit of 65 miles per hour (MPH) in effect since September 2018.

Table 1: US-275 Segment Design Hour Volumes, Percent Trucks, and PHF

Segment	1		2		3		4		5		6		7	
Direction	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
PHF	0.83	0.75	0.84	0.80	0.84	0.85	0.91	0.87	0.82	0.91	0.79	0.83	0.79	0.83
Percent Trucks	17	15	14	16	14	12	12	14	16	12	14	12	14	12
2019 Volume[1]	226	178	206	219	204	219	225	214	239	221	200	182	200	182
2024 Volume	346	284	328	320	331	320	315	294	307	296	296	275	296	275
2029 Volume	359	300	340	336	336	343	322	304	314	306	300	281	300	281
2034 Volume	379	319	358	352	361	352	333	314	325	315	306	286	306	286
2044 Volume	422	352	388	381	391	381	349	329	340	330	315	294	315	294

[1]Peak hour turning movement volumes from February / March 2019; counts not annualized

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Figure 1: Roadway Segments for Traffic Operations Analysis



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HCS used to model and evaluate traffic operations based on the Highway Capacity Manual (HCM). The HCS software was used to model the corridor as a two-lane highway for the No-Build scenario and as a four-lane divided highway for the Build scenario. Each of the seven segments was analyzed separately and then combined to determine the overall performance of the US-275 corridor. In addition to modelling each segment separately, each year was also analyzed separately to get the existing 2019, and the No-Build and Build scenarios for 2024, 2029, 2034, and 2044. The key outputs from the model are the Level of Service (LOS) and average speed. The results from the HCS models are shown in Table 2.

Table 2: HCS Outputs

	2019	2024		2029		2034		2044	
	Existing	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build
LOS	C	C	A	C	A	C	A	C	A
Average Speed*	57.6	56.8	63.8	56.7	63.8	56.4	63.8	56.2	63.8

*All speeds are in MPH

The traffic engineering analysis confirms that the design condition will satisfy LOS criteria associated with design guidance and provide a nearly 8 mph improvement in peak hour average speeds in the design year. Further, the traffic engineering analysis finds no justification based in crash history or traffic operations to recommend design treatments at the segment level differing from the NDOT Roadway Design Manual.

Intersection Analysis

The Intersection Analysis focuses on several key corridor intersections with higher traffic volumes and areas of geometric concern. The projected 2044 Design Hour Turning Movement Volumes and 2044 Annual Average Daily Traffic Volumes from Tables 3 and 4 were used in the analysis for recommendations for geometric changes.

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Table 3: 2044 Design Hour Turning Movement Volumes

Intersection	Turning Movement Volumes											
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
N-57	5	394	5	8	344	1	6	1	28	1	1	5
N-15 (West Junction)	2	335	85	80	299	2	51	1	53	0	3	2
575th Avenue	1	391	1	1	381	1	0	1	0	0	1	0
N-15 (East Junction)	111	280	N/A	N/A	266	63	N/A	N/A	N/A	69	N/A	115
S Road	N/A	339	10	5	325	N/A	4	N/A	1	N/A	N/A	N/A
N-51	46	294	N/A	N/A	276	18	N/A	N/A	N/A	21	N/A	54

Table 4: 2044 Annual Average Daily Traffic

Intersection	Turning Movement Volumes											
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
N-57	45	3301	94	149	3322	38	72	1	169	38	1	45
N-15 (West Junction)	8	2961	539	684	2962	10	539	41	684	10	41	8
575th Avenue	10	3638	7	8	3639	10	7	9	8	10	9	10
N-15 (East Junction)	946	2710	N/A	N/A	2711	714	N/A	N/A	N/A	714	N/A	946
S Road	N/A	3349	119	44	3349	N/A	76	N/A	44	N/A	N/A	N/A
N-51	626	2767	N/A	N/A	2767	27	N/A	N/A	N/A	27	N/A	626

Along the corridor segments that connect these key intersections there are additional intersections and access points that were not individually analyzed. These minor intersections and access points can impact key design features like cross median access and provision of auxiliary lanes. At these locations, the NDOT Roadway Design Manual should be utilized for preliminary design plans. From NDOT's Roadway Design Manual, the following median breaks are recommended for appropriate site conditions:

- Type A median breaks are recommended for intersections of the mainline with roadways having a classification of Other Arterial or higher and at intersections with paved public roads.

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- Type B median breaks are recommended for intersections with gravel county roads, housing development intersections, and with rural commercial driveways.
- Type C median breaks are recommended for intersections with farmstead/rural residence driveways.
- Type D median breaks are recommended at an intersection with a field entrance.

The analysis notes that through the design process, median crossing access should consider the use of the J-Turn design to limit left turn maneuvers from county roads and other lower classification public roads directly onto US-275 as a safety feature. FHWA has adopted reduced left-turn conflict intersections, including the J-Turn, as a proven safety countermeasure, effective in reducing injury and fatal crashes.

Intersections were analyzed using HCS software for design year traffic in the worst-case peak hour. The analysis was used to confirm that the controlling LOS for each intersection met design criteria including the geometric improvements recommended within this memo. Table 5 verifies that each studied intersection meets or exceeds LOS criteria for the worst-case stop-controlled approach as recommended in the HCM. The detailed traffic analysis reports from HCS have been documented as part of the appendix in this memo and the HCS files will be provided to NDOT in their native format as a digital appendix.

Table 5: Two-Way Stopped Control Level of Service (LOS)

Intersection	Approach With The Worst LOS
N-57	Southbound LOS: B
N-15 (West Junction)	Southbound LOS: B
575th Avenue	Northbound LOS: B
N-15 (East Junction)	Southbound LOS: A
S Road	Northbound LOS: B
N-51	Southbound LOS: A

US-275 & N-57

The intersection of US-275 & N-57 is currently operates with an eastbound approach with one through lane and a westbound approach with two through lanes. The eastbound approach consists of a right turn and left turn lane with storage lengths of 205 feet and 100 feet, respectively. The westbound approach has a left turn lane with a storage length of 95 feet. The south leg of N-57 functions as a Major Arterial that leads into the City of Stanton and the north leg is classified as Other Arterial. At the intersection of US-275 & N-57, the northbound approach has a flared approach of approximately 90 feet for the right-turning vehicles and has a

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raised median that should be retained. The southbound approach is a single lane that serves all turning movements. The NDOT conducted crash rate analysis determined the current crash rate for this location exceeds the statewide average for similar facilities.

The project extends the four-lane cross section to the east of N-57, which will impact the current eastbound configuration of one through lane and one dedicated right turn lane. A review of design hour traffic volumes indicate that the dedicated eastbound right turn lane would serve 94 vehicles daily. While currently the right turn lane separates through vehicles and right turning vehicles to prevent rear end crashes, the conversion to a 4-lane highway provides sufficient passing opportunity to offer similar safety benefits for eastbound travelers. A right turn lane is not warranted in these conditions; however, the corridor design may include adding a right turn lane based on the District and public's input. Recent crash history did not reflect any pattern of crashes correctable by inclusion of a right turn lane at this location.

From NDOT's Roadway Design Manual, the classification of N-57 as a Major Arterial and Other Arterial warrant a Type A Median Break. The traffic volumes for left turns on the westbound and eastbound approaches are 149 vehicles per day and 45 vehicles per day, resulting in limited traffic operations benefit for left turn lanes. However, left turn lanes provide a safety benefit due to separation of slowing traffic from the left / passing lane. The left turn lanes already present at this intersection should be maintained in the project design. Additionally, the length of the existing auxiliary lanes should be reviewed for consistency with the NDOT Roadway Design Manual guidance. The NDOT Roadway Design Manual recommends storage lengths for left turn lanes be 100 feet for all turning movements due to a truck percentage that exceeds 10%. Aerial review finds the intersection to have deficient auxiliary lane length based on storage and deceleration lengths recommended. It is recommended the project design team further evaluate whether there is sufficient justification for reconstruction of left turn lanes to provide recommended left turn lane length.

US-275 & N-15 (West Junction)

The intersection of US-275 & N-15 (West Junction) is currently operating as a two-lane highway with one through lane serving both the eastbound and westbound approaches. The eastbound approach consists of one through lane and a right turn and a left turn lane with storage lengths of 180 feet and 100 feet, respectively. The westbound approach consists of a shared right and through lane and a left turn lane with a storage length of 305 feet. The south leg of N-15 functions as a Major Arterial that leads to the Village of Pilger and the north leg serves as a Collector roadway. At the intersection of US-275 & N-15, the northbound approach has a flared approach that allows approximately 40 feet for right-turning vehicles and has a raised median that should be retained and modified per NDOT Roadway Design Manual guidance. The

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southbound approach is a single lane that serves all turning movements. The NDOT conducted crash rate analysis determined the current crash rate at this location does not exceed the statewide average for similar facilities.

The proposed widening project results in adding one through lane for both the eastbound and westbound approaches. From NDOT's Roadway Design Manual, the classification of N-15 as a Major Arterial warrant a Type A Median Break. The 2044 design hour turning volume for the westbound left-turning movement is 80 vehicles. The new eastbound lanes will also serve over 500 vehicles per day making a right turn. It is recommended that a dedicated right turn lane for the eastbound approach be constructed. Use of an offset right turn lane should be considered to improve sight distance for northbound traveler of oncoming traffic in the eastbound through lanes. The recommended storage lengths are 100 feet for all turning movements due to a truck percentage that exceeds 10% as referenced in the NDOT Roadway Design Manual. Auxiliary lane additions are not recommended for the minor street approaches.

US-275 & 575th Avenue

The intersection of US-275 & 575th Avenue is currently operating as a two-lane highway for both the eastbound and westbound approaches. The through lanes also serve the left and right turning traffic for both eastbound and westbound traffic. The classification for 575th Avenue is lower than the classification Other Arterial and the north leg leads to Pilger Recreation Area. No crash analysis was conducted specific to this intersection.

An additional lane in each direction is to be added to convert the two-lane highway to a four-lane highway for the eastbound and westbound approaches. There is no operational concern for this intersection for turning movement queue and LOS performance. Left turn lanes are not warranted for this intersection, but NDOT's policy governs the provision of left-turn bays to avoid disrupting traffic flow along US 275. If left-turn lanes are included, a Type B Median Break is recommended from NDOT's Roadway Design Manual since the classification is lower than Other Arterial. With the addition of left-turn lanes, a storage length of 100 feet is recommended due to the truck percentage exceeding 10% as referenced in the NDOT Roadway Design Manual. No right turn lanes are recommended at this location due to low relative traffic volumes. Auxiliary lane additions are not recommended for the minor street approaches.

US-275 & N-15 (East Junction)

The intersection of US-275 & N-15 (East Junction) currently operates as a two-lane highway for the eastbound and westbound approaches. The eastbound approach has a left turn lane with a storage length of 300 feet. The westbound approach has a channelized right turn lane. The north leg that leads to the City of Wayne functions as a Major Arterial. The north leg has a raised

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median that should be retained and modified per NDOT Roadway Design Manual guidance. The southbound approach has a flared approach that allows approximately 50 feet for right-turning vehicles. The NDOT conducted crash rate analysis determined the current crash rate for this location exceeds the statewide average for similar facilities.

An additional lane is to be added to convert the two-lane highway to a four-lane highway for the eastbound and westbound approaches. The eastbound left-turning volume of 111 vehicles satisfies the warrant of a left turn lane. From NDOT's Roadway Design Manual, the classification of N-15 as a Major Arterial warrants a Type A Median Break. The current configuration of a westbound channelized right turn lane removes right-turning vehicles out of the through lane traffic but creates an additional conflict point north of the primary intersection. This intersection also has a crash history that is higher than the statewide average for similar facilities, so removing the channelized right turn lane and constructing a westbound offset right turn lane is recommended to reduce speeds at the junction for turning vehicles, improve sight distance for left turning traffic, and simplify the yielding maneuver for eastbound and westbound traffic that must merge to head northbound. A storage length of 100 feet is recommended for all turning lanes at this intersection due to a truck percentage that is greater than 10% as referenced in the NDOT Roadway Design Manual. Auxiliary lane additions are not recommended for the minor street approaches.

US-275 & S Road

The intersection of US-275 & S Road currently operates as a two-lane highway for the eastbound and westbound approaches. The through lanes serve the left turning and right turning traffic for the eastbound and westbound respective movements. S Road is a one-legged approach on the south leg and functions as a roadway classified lower than Other Arterial. No crash analysis was conducted specific to this intersection.

An additional lane is to be added in each direction to convert the two-lane highway to a four-lane highway for the eastbound and westbound approaches. There is no operational concern for this intersection for turning movement queue and Level of Service performance. A left turn lane is not warranted for this intersection, but NDOT's policy governs the provision of left-turn bays to avoid disrupting traffic flow. If designed to include a left turn bay, a Type B Median break should be utilized due to the low traffic and S Road being a gravel county road. With the addition of left-turn lanes, a storage length of 100 feet is recommended due to the truck percentage exceeding 10% as referenced in the NDOT Roadway Design Manual. Auxiliary lane additions are not recommended for the minor street approaches.

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US-275 & N-51

The intersection of US-275 & N-51 is currently operating as a two-lane highway for both the eastbound and westbound approaches. The eastbound approach consists of a left turn lane with storage length of 375 feet. The westbound approach consists of shared right and through lane. N-51 is a one-legged approach with the leg on the north side and functions as a Major Arterial. The north leg has a raised median that should be retained and modified per NDOT Roadway Design Manual guidance. The southbound movement has a flared approach that allows approximately 50 feet for right turning vehicles. The NDOT conducted crash rate analysis determined the current crash rate at this location does not exceed the statewide average for similar facilities.

An additional lane is to be added in each direction to convert the two-lane highway to a four-lane highway for the eastbound and westbound approaches. Eastbound left turning traffic is projected at 626 vehicles per day warranting a dedicated left turn lane. The NDOT Roadway Design Manual specifies a Type A Median and left turn bay design be utilized due to N-51 functioning as a Major Arterial. A storage length of 100 feet is recommended for the recommended left turn lane due to the truck percentage exceeding 10% as referenced in the NDOT Roadway Design Manual. Westbound right turn traffic represents a small fraction of traffic on US 275 at this intersection; projected at 27 vehicles per day. It is recommended that right turn traffic not be provided a right turn bay at this location. Auxiliary lane additions are not recommended for the minor street approaches.

Conclusion

The widening of US 275 from a two-lane highway to a four-lane highway will result in improved traffic operations at the segment and intersection level. The widening project introduces a divided highway section, which impacts access patterns to cross streets and driveways. This analysis recommends cross median access be provided when appropriate and roadway design be conducted according to NDOT Roadway Design Manual guidance. When direct cross median access is not to be provided, median crossings are recommended to utilize the J-Turn (median U-Turn) design.

Additional major road capacity due to widening will alleviate the need for auxiliary lanes in some locations and projected travel demand will support the addition of auxiliary lanes in other locations. The following auxiliary lanes modifications are recommended in tables 6 and 7; see body of memo for additional design details.

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Table 6: Turning Lane Recommendations

Intersection	Turning Lane Recommendations
N-57	• Dedicated eastbound right turn lane not recommended • Dedicated eastbound and westbound left turn lane recommended
N-15 (West Junction)	• Dedicated eastbound left and offset right turn lanes recommended • Dedicated westbound left turn lane recommended
575th Avenue	• Left turn lanes to be added at NDOT's discretion
N-15 (East Junction)	• Dedicated eastbound left turn lane recommended • Dedicated westbound offset right turn lane recommended
S Road	• Left turn lanes to be added at NDOT's discretion
N-51	• Dedicated eastbound left turn lane recommended • Dedicated westbound right turn lane not recommended

Table 7: Existing and Proposed Auxiliary Lane Lengths

Intersection	Existing Auxiliary Lane Length				Proposed Auxiliary Lane Lengths[1]			
	EBL	EBR	WBL	WBR	EBL	EBR	WBL	WBR
N-57	100 feet	205 feet	95 feet	N/A	100 feet	N/A	100 feet	N/A
N-15 (West Junction)	100 feet	180 feet	305 feet	N/A	100 feet	100 feet	305 feet	N/A
575th Avenue	N/A	N/A	N/A	N/A	100 feet*	N/A	100 feet*	N/A
N-15 (East Junction)	300 feet	N/A	N/A	N/A	300 feet	N/A	N/A	100 feet
S Road	N/A	N/A	N/A	N/A	100 feet*	N/A	100 feet*	N/A
N-51	375 feet	N/A	N/A	N/A	375 feet	N/A	N/A	N/A

[1]Proposed Storage length of 100 feet is the minimum distance and further evaluation is needed for deceleration into the auxiliary lane

*Storage lengths are dependent on if a turn lane is constructed per NDOT's discretion

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APPENDIX

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HCS7 Two-Way Stop-Control Report

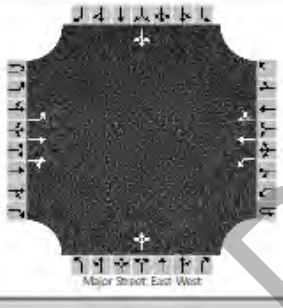
General Information

Analyst	
Agency/Co.	
Date Performed	7/24/2019
Analysis Year	2044
Time Analyzed	
Intersection Orientation	East-West
Project Description	

Site Information

Intersection	US-275 & N-57
Jurisdiction	
East/West Street	US-275
North/South Street	N-57
Peak Hour Factor	0.79
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	5	394	5	0	8	344	1		6	1	28		1	1	5
Percent Heavy Vehicles (%)	20	20			20	20				6	6	6		18	18	18
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.50				4.50				7.62	6.62	7.02		7.86	6.86	7.26
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.40				2.40				3.56	4.06	3.36		3.68	4.18	3.48

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6				10					44				9	
Capacity, c (veh/h)		1002				940					919				502	
v/c Ratio		0.01				0.01					0.05				0.02	
95% Queue Length, Q_{95} (veh)		0.0				0.0					0.2				0.1	
Control Delay (s/veh)		8.6				8.9					9.1				12.3	
Level of Service (LOS)		A				A					A				B	
Approach Delay (s/veh)	0.1				0.2				9.1				12.3			
Approach LOS									A				B			

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HCS7 Two-Way Stop-Control Report

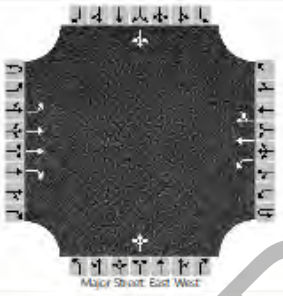
General Information

Analyst	
Agency/Co.	
Date Performed	7/25/2019
Analysis Year	2044
Time Analyzed	
Intersection Orientation	East-West
Project Description	

Site Information

Intersection	US-275 & N-15/574th Ave
Jurisdiction	
East/West Street	US-275
North/South Street	N-15/574th Ave
Peak Hour Factor	0.87
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	1	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	R		L	T	TR			LTR				LTR	
Volume (veh/h)	0	2	335	85	0	80	299	2		51	1	53		1	3	2
Percent Heavy Vehicles (%)	3	20			3	20				27	27	27		17	17	17
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized		No														
Median Type | Storage		Left + Thru								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.50				4.50				8.04	7.04	7.44		7.84	6.84	7.24
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.40				2.40				3.77	4.27	3.57		3.67	4.17	3.47

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2				92					121				7	
Capacity, c (veh/h)		1090				959					699				372	
v/c Ratio		0.00				0.10					0.17				0.02	
95% Queue Length, Q_{95} (veh)		0.0				0.3					0.6				0.1	
Control Delay (s/veh)		8.3				9.1					11.2				14.9	
Level of Service (LOS)		A				A					B				B	
Approach Delay (s/veh)		0.0				1.9					11.2				14.9	
Approach LOS											B				B	

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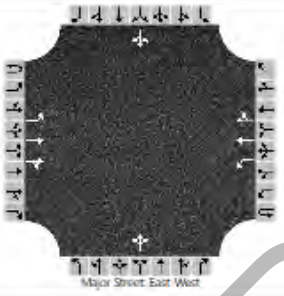
HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst		Intersection	US-275 & 575 Ave
Agency/Co.		Jurisdiction	
Date Performed	7/25/2019	East/West Street	US-275
Analysis Year	2044	North/South Street	575th Ave
Time Analyzed		Peak Hour Factor	0.85
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description			

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	1	0
Configuration		L	T	TR		L	T	TR			LTR				LTR	
Volume (veh/h)	0	1	391	1	0	1	381	1		1	1	1		1	1	1
Percent Heavy Vehicles (%)	3	20			3	20				3	3	3		3	3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage		Left Only								1						

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5	6.5	6.9		7.5	6.5	6.9
Critical Headway (sec)		4.50				4.50				7.56	6.56	6.96		7.56	6.56	6.96
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.40				2.40				3.53	4.03	3.33		3.53	4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		1				1					4				4	
Capacity, c (veh/h)		990				979					408				410	
v/c Ratio		0.00				0.00					0.01				0.01	
95% Queue Length, Q_{95} (veh)		0.0				0.0					0.0				0.0	
Control Delay (s/veh)		8.6				8.7					13.9				13.9	
Level of Service (LOS)		A				A					B				B	
Approach Delay (s/veh)		0.0				0.0					13.9				13.9	
Approach LOS											B				B	

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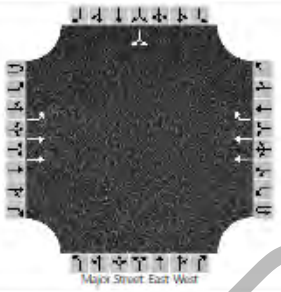
HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst		Intersection	US-275 & N-15 (E Junction
Agency/Co.		Jurisdiction	
Date Performed	7/25/2019	East/West Street	US-275
Analysis Year	2044	North/South Street	N-15 (E Junction)
Time Analyzed		Peak Hour Factor	0.89
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description			

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	0	2	1		0	0	0		0	1	0
Configuration		L	T				T	R							LR	
Volume (veh/h)	0	111	280				266	63						69		115
Percent Heavy Vehicles (%)	20	20												23		23
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized							Yes									
Median Type | Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.50												7.26		7.36
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.40												3.73		3.53

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		125													207	
Capacity, c (veh/h)		1139													1055	
v/c Ratio		0.11													0.20	
95% Queue Length, Q_{95} (veh)		0.4													0.7	
Control Delay (s/veh)		8.6													9.2	
Level of Service (LOS)		A													A	
Approach Delay (s/veh)		2.4												9.2		
Approach LOS														A		

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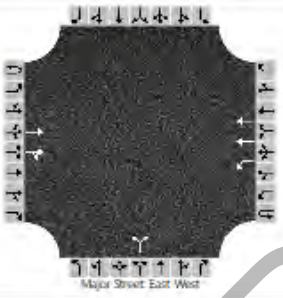
HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst		Intersection	US-275 & S Road
Agency/Co.		Jurisdiction	
Date Performed	7/25/2019	East/West Street	US-275
Analysis Year	2044	North/South Street	S Road
Time Analyzed		Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description			

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	2	0	0	1	2	0		0	1	0		0	0	0
Configuration			T	TR		L	T				LR					
Volume (veh/h)			339	10	0	5	325			4		1				
Percent Heavy Vehicles (%)					3	20				10		10				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage			Left + Thru							1						

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.50				7.00		7.10				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.40				3.60		3.40				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						6					6					
Capacity, c (veh/h)						1031					538					
v/c Ratio						0.01					0.01					
95% Queue Length, Q_{95} (veh)						0.0					0.0					
Control Delay (s/veh)						8.5					11.8					
Level of Service (LOS)						A					B					
Approach Delay (s/veh)						0.1				11.8						
Approach LOS										B						

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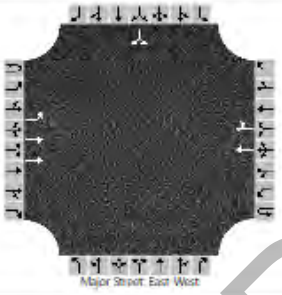
HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst		Intersection	US-275 & N-51
Agency/Co.		Jurisdiction	
Date Performed	7/25/2019	East/West Street	US-275
Analysis Year	2044	North/South Street	N-51
Time Analyzed		Peak Hour Factor	0.81
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description			

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		0	1	0
Configuration		L	T				T	TR							LR	
Volume (veh/h)	0	46	294				276	18						21		54
Percent Heavy Vehicles (%)	3	20												38		38
Proportion Time Blocked																
Percent Grade (%)														0		
Right Turn Channelized																
Median Type | Storage			Left Only								1					

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.50												7.56		7.66
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.40												3.88		3.68

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		57													93	
Capacity, c (veh/h)		1073													1012	
v/c Ratio		0.05													0.09	
95% Queue Length, Q_{95} (veh)		0.2													0.3	
Control Delay (s/veh)		8.5													8.9	
Level of Service (LOS)		A													A	
Approach Delay (s/veh)		1.2												8.9		
Approach LOS														A		

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Appendix D – Benefit-Cost Analysis Memo

Date:	Friday, March 19, 2021
Project:	US-275 Norfolk to N-15
To:	Nebraska Department of Transportation
From:	HDR
Subject:	Benefit-Cost Analysis Memo Supporting INFRA Grant Application

Executive Summary

The Nebraska US-275 Norfolk to N-15 Project is the next step in a larger vision to connect commerce and communities in northeast Nebraska with each other and with the interstate highway system. The Nebraska Department of Transportation (NDOT) is working to improve approximately 10 miles of US Highway 275 (US-275) from 8.5 miles east of Norfolk, NE to Nebraska Highway 15 (N-15).

This project will build upon over $450 million in investments that NDOT has made along the US-275 corridor by transforming the existing two-lane highway into a new four-lane expressway that will improve the safety, efficiency, and reliability of a key connector route in northeast Nebraska.

This project will maximize utilization of existing transportation infrastructure and right-of-way and better connect key highways within the region. It will improve the safety and reliability of the roadway while improving regional connectivity for all users in northeast Nebraska, including commercial truck traffic.

Table ES-1 summarizes the changes expected from the project.

Table ES-1: Summary of Infrastructure Improvements and Associated Benefits

Changes to Baseline / Alternatives	Type of Impacts	Population Affected by Impacts	Benefits	Summary of Results (millions of discounted $2019)
Improve safety along US-275 and at intersections	Reduced risk of crashes	Local and through traffic	Safety	$18.9

Improvements to roadway and intersections to improve level of service	Travel time savings	Local and through traffic	Congestion reduction; Freight movement and economic vitality	$31.4
	Vehicle operating cost savings			Not estimated
Resurfaced roadway reduces future recurring maintenance costs	Operations and maintenance cost savings	Local and state governments	Infrastructure condition	$0.1
Acquisition of land with long-term value	Residual land value			$0.1
Improvements to roadway and intersections to improve level of service	Improved reliability of traffic flow	Local and through traffic	System reliability	Not estimated
Reduced idling along roadway reduces energy consumption	Reduced emissions	General public	Environmental sustainability	Not estimated

The analysis period used to estimate benefits and costs is 39 years, including 9 years of project development and construction and 30 years of operation. The total (undiscounted) project costs are $77.4 million in 2019 dollars according to the distribution shown in Table ES-2. The $42.8 million INFRA grant funding request, in current day dollars, is approximately 55 percent of future projects.

Table ES-2: Summary of Project Costs, 2019 Dollars

Cost Category	Undiscounted Project Cost	Percentage of Undiscounted Project Capital Cost
Engineering	$6.7 million	8%
Right-of-Way	$1.7 million	2%
Utilities	$1.9 million	2%
Construction	$67.0 million	87%
TOTAL COST	**$77.4 million**	

A summary of the relevant data and calculations used to derive the benefits and costs of the project are shown in the benefit-cost analysis (BCA) model. Benefits and costs are quantified in 2019 dollars. Based on the analysis presented in this document, the project is expected to generate $50.6 million in discounted benefits and $50.7 million in discounted costs, using a 7 percent real discount

rate. The project is expected to generate a Net Present Value (NPV) of -$117,000 and a Benefit/Cost Ratio (BCR) of 1.00. Table ES-3 provides a summary of the project's net benefits.

Table ES-3: Summary of Project Net Benefits, 2019 Dollars

Project Evaluation Metric	Constant Dollars	7% Discount Rate
Total Discounted Benefits	$244.1 million	$50.6 million
Total Discounted Costs	$77.4 million	$50.7 million
Net Present Value	$166.8 million	-$117 thousand
Benefit / Cost Ratio	3.15	1.00
Internal Rate of Return (%)	7.0%	
Undiscounted Payback Period	N/A	

Introduction

This document provides detailed technical information on the economic analyses conducted in support of the grant application for the Nebraska US-275 Norfolk to N-15 Project.

- **Methodological Framework** introduces the conceptual framework used in the BCA.
- **Project Overview** provides an overview of the project, including a brief description of existing conditions and proposed alternatives, a summary of cost estimates and schedule, and a description of the types of effects that the Nebraska US-275 Norfolk to N-15 Project is expected to generate.
- **General Assumptions** discusses the general assumptions used to estimate project costs and benefits.
- **Demand Projections** provides estimates of travel demand and traffic growth.
- **Benefits Measurement, Data, and Assumptions** details specific data elements and assumptions pertaining to the long-term outcome selection criteria along with associated benefit estimates.
- **Summary of Findings and BCA Outcomes** presents estimates of the project's NPV, BCR, and other project evaluation metrics.
- **BCA Sensitivity Analysis** provides the outcomes of the sensitivity analysis. Additional data tables are provided within the BCA model including annual estimates of benefits and costs to assist the US Department of Transportation (USDOT) in its review of the application.[1]

Methodological Framework

The BCA conducted for this project includes the monetized benefits and costs measured using USDOT guidance, as well as the quantitative and qualitative merits of the project. A BCA provides estimates of the benefits that are expected to accrue from a project over a specified period and

[1] The Excel-based BCA model is provided separately as part of the application for USDOT review.

compares them to the anticipated costs of the project. Estimated benefits are valued in monetary terms[2] and based on the projected impacts of the project on both users and non-users of the facility.

While BCA is just one of many tools that can be used to make decisions about infrastructure investments, USDOT believes that it provides a useful benchmark from which to evaluate and compare potential transportation investments.[3]

The specific methodology for this application was developed using the BCA guidance developed by USDOT and is consistent with the INFRA program guidelines. In particular, the methodology involves:

- Establishing existing and future conditions under the "Build" and "No-Build" scenarios;
- Assessing benefits with respect to the criteria identified in the INFRA 2021 Notice of Funding Opportunity (NOFO);
- Measuring benefits in dollar terms, whenever possible, and expressing benefits and costs in a common unit of measurement;
- Using USDOT guidance to estimate the value of travel time savings and safety benefits, and using industry best practices for other impacts;
- Discounting future benefits and costs with the real discount rate recommended by USDOT (7 percent); and
- Conducting a sensitivity analysis to assess the impacts of changes in key estimating assumptions.

Project Overview

NDOT is continuing efforts to complete the expansion of US-275 from a two-lane highway to a four-lane expressway in the general area between Norfolk and Fremont. The current project is the next step in a larger vision to connect commerce and communities in northeast Nebraska with each other as well as to the interstate system.

US-275 was originally constructed as a two-lane highway in northeast Nebraska in 1939. In 1969, the Nebraska Department of Roads first identified the need for an expressway system for northeast Nebraska to better connect urban and rural areas and to improve connectivity between the state's economically diverse regions.

Officially created in 1988, the Expressway System was designed to link Nebraska communities with 15,000 or more in population to the Interstate System using four-lane highways. Approximately 425 of the plan's original 600 miles have been completed, but vital segments remain incomplete. US-275 in northeast Nebraska represents roughly one quarter of the remaining miles that are left unfinished.

[2] USDOT, Benefit-Cost Analysis Guidance for Discretionary Grant Programs, February 2021.
[3] Ibid.

US-275 between Norfolk and Omaha extends for approximately 92 miles. To date NDOT has completed only approximately 44 miles of US-275 expansion in this area, primarily between Fremont and Omaha (the sixth largest and largest cities in Nebraska, respectively). NDOT has divided the remaining 48 miles of the Norfolk to Omaha expressway into four construction segments:

- Norfolk to N-15
- N-15 to Wisner
- Wisner to West Point
- West Point to Scribner

These segments constitute the rural portion of the Norfolk to Omaha expressway; are located in Stanton, Colfax, and Dodge counties; and have a total population of approximately 51,400. Development of the West Point to Scribner segment – which includes numerous constraints and permitting issues associated with extensive wetlands, frequent flooding, and nearby levees – is ongoing.

The next logical priority segment is the northernmost portion, from Norfolk to N-15, which is the focus of this INFRA grant application. The improvements included in this project are as follows:

1. Expand the existing US-275 two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway (2+2 construction) on one side of the existing US-275.

2. Apply a Restoration, Rehabilitation, and Resurfacing (3R) treatment to improve the existing two lanes of US-275.

3. Modify and improve various county road intersections with US-275.

4. Modify and improve the intersection of N-15 with US-275 at two locations east of Nebraska Highway 57 (N-57).

This project will maximize utilization of existing transportation infrastructure and right-of-way, including connecting key highways within the region. It will improve safety and reliability of the roadway while improving regional connectivity for all users in northeast Nebraska, including commercial truck traffic. Project efforts also fulfill Nebraska Legislature mandates.

Today, area steelmakers, manufacturers, cattle feeders, farmers, and small businesses are somewhat isolated from major markets. While tremendous potential for new growth and increased quality of life exists, outdated infrastructure is costing the region and the state. A local coalition of support has been established to advocate for the completion of the Norfolk to Omaha expressway, and this project will help enhance connectivity within northeast Nebraska and beyond.

Base Case and Alternatives

The "No-Build" and "Build" scenario conditions are straightforward differences in roadway design. The No-Build scenario includes the current two-lane highway design, existing road conditions, and existing design of county road and N-15 intersections with US-275. The Build scenario includes a four-lane US-275 expressway built with 2+2 construction techniques, a 3R treatment to the existing two lanes of US-275, and improved intersections between US-275 and various county roads and N-15.

Types of Impacts

Table 1: Summary of Infrastructure Improvements and Associated Benefits

Changes to Baseline / Alternatives	Type of Impacts	Population Affected by Impacts	Benefits
Improve safety along US-275 and at intersections	Reduced risk of accidents	Local and through traffic	Safety
Improvements to roadway and intersections to improve level of service	Travel time savings	Local and through traffic	Freight movement and economic vitality
	Vehicle operating cost savings		
Reduced road maintenance expenses	Operations and maintenance cost savings	Local and state governments	Infrastructure condition
Acquisition of land with long-term value	Residual land value		
Improvements to roadway and intersections to improve level of service	Improved reliability of traffic flow	Local and through traffic	Quality of life
Reduced idling along roadway reduces energy consumption	Reduced emissions	General public	Environmental sustainability

Project Cost and Schedule

The analysis period used to estimate benefits and costs is 39 years, including 9 years of project development and construction and 30 years of operation. The total (undiscounted) project costs are $77.4 million in 2019 dollars according to the distribution shown in Table 2. The $42.8 million requested grant amount is approximately 55 percent of the project cost denominated in dollars as of Q1 2021.

Table 2: Summary of Project Costs, 2019 Dollars

Cost Category	Undiscounted Project Cost ($MM)	Percentage of Undiscounted Project Capital Cost
Engineering	$6.7	8%
ROW	$1.7	2%
Utilities	$1.9	2%
Construction	$67.0	87%
TOTAL COST	**$77.4**	

Disruptions Due to Construction

Disruptions due to construction will be minimal due to the 2+2 construction method employed in this project. Roadway construction and intersection modifications will occur primarily along a corridor that is not currently used for transportation, minimizing disruptions on the existing corridor. Some traffic disruption could occur during construction along north-south routes that intersect the US-275 corridor. The timing of construction will be managed to minimize disruption.

Effects on Selection Criteria

The main benefit categories associated with the project (see Table 3) are mapped to the primary selection criteria in support of national or regional economic vitality set forth by USDOT.

Table 3: Benefit Categories and Expected Effects on Selection Criteria

Primary Selection Criteria	Benefit or Impact Categories	Description	Monetized	Quantified	Qualitative
Safety	Crash Reduction	Reduction in property losses, injuries, and deaths due to road widening and intersection improvements	Yes	Yes	Yes
Infrastructure Condition	Decreased Operations and Maintenance Cost	Improved pavement quality to decrease future required maintenance expenses	Yes	Yes	Yes

	Residual Value	Long-term value of land acquired for construction			
Congestion Reduction	Travel Time Savings	Travel time savings over the corridor for existing users	Yes	Yes	Yes
Freight Movement and Economic Vitality	Vehicle Operating Cost Savings	Improved pavement quality and traffic flow to reduce wear on vehicles	No	No	Yes
System Reliability	Increased Reliability	Improved travel time reliability to result in fewer unpredictable delays	No	No	Yes
Environmental Sustainability	Emissions Reduction	Reduction in air pollutants due to reduction in congestion and delay	No	No	Yes

General Assumptions

The BCA measures benefits against costs throughout an analysis period beginning at the start of project development and including 30 years of operation. The monetized benefits and costs are estimated in 2019 dollars with future dollars discounted, in compliance with INFRA requirements, using a 7 percent real discount rate. A 3 percent discount rate is also used as a sensitivity test.

The methodology makes several important assumptions and seeks to avoid overestimation of benefits and underestimation of costs. Specifically:

- Input prices are expressed in 2019 dollars;
- The analysis period begins in 2019 and ends in 2057. It includes project development and construction years (2019-2027) and 30 years of operations (2028-2057);
- A constant 7 percent real discount rate is assumed throughout the analysis period; and
- Opening year demand is assumed to be fully realized in Year 1.

Demand Projections

Demand projections are a key driver of future benefits. For US-275, demand consists of roadway users – both automobiles and trucks. The traffic analysis conducted for the US-275 corridor evaluated existing and future traffic conditions, and the task was completed using existing traffic volumes, observed turning movements at intersections along the US-275 corridor, and projections for future turning movements. Additional information on the employed methodology and demand

projections can be found in the traffic and safety technical memorandums that accompany this application package.

Methodology

As detailed in the traffic technical memorandum that accompanies this application package, traffic modeling software was used to model the corridor as a two-lane highway for the No-Build scenario and as a four-lane divided highway for the Build scenario. Each relevant roadway segment was analyzed separately and then combined to determine the overall performance of the US-275 corridor. This analysis was conducted for existing conditions as of 2019 and modelled No-Build and Build conditions for 2025, 2030, 2035, and 2045. Technical traffic model specifications are further discussed in the corresponding technical memorandum that accompanies this application package.

Benefits Measurement, Data, and Assumptions

This section describes the approach used to estimate each benefit category identified above and provides an overview of the associated data, assumptions, and results.

Safety

The proposed project would contribute to promoting safety through a reduction in automobile crashes.

Methodology

As detailed in the safety technical memorandum that accompanies this application package, a crash analysis was performed to evaluate the existing and predicted future safety along the US-275 corridor. This analysis references crash data provided by NDOT for the 2014 through 2018 calendar years. The Highway Safety Manual (HSM) Predictive Method was then used to determine the predicted safety of the corridor if it were to remain a two-lane undivided highway. Crash modification factors (CMF) were applied to No-Build results to determine the predicted reduction in crashes resulting from the conversion of the roadway to a four-lane divided highway. Technical safety model specifications, including additional information on the CMFs used in the analysis, are further discussed in the corresponding technical memorandum that accompanies this application package.

Safety Projections

The resulting projections for Fatality and Injury (FI), Property Damage Only (PDO), and Total crashes for the No-Build and Build scenarios are presented in Table 4 and Table 5, respectively.

Table 4: US-275 Safety Projections: No-Build Scenario

Crash Type	2019 No-Build	2025 No-Build	2030 No-Build	2035 No-Build	2045 No-Build
FI	3.85	4.28	4.58	4.86	5.45
PDO	8.56	9.51	10.18	10.83	12.15
Total	12.41	13.79	15.69	15.69	17.60

Table 5: US-275 Safety Projections: Build Scenario

		2025		2030		2035		2045	
Crash Severity	CMF	Build	Reduction	Build	Reduction	Build	Reduction	Build	Reduction
FI	0.533	2.28	2.00	2.44	2.14	2.59	2.27	2.90	2.55
PDO	*	7.24	2.27	7.75	2.43	8.25	2.58	9.25	2.90
Total	0.691	9.52	4.27	10.19	4.57	10.84	4.85	12.16	5.44

Parameter Assumptions

The parameter assumptions used to estimate safety benefits are summarized in Table 6. These parameter assumptions were applied to the safety projections above to calculate safety benefits.

Accident cost parameter inputs are sourced from USDOT's *Benefit-Cost Analysis Guidance for Discretionary Grant Programs*, January 2021, Appendix A, Tables A-1 and A-2. Vehicles per crash and injury and fatality rates are sourced from NDOT's *Traffic Crash Facts* 2019 Annual Report. Injury and fatality rates are calculated from all Nebraska "Rural" and "Other State Highways" accidents recorded in 2019.

Table 6: Parameter Assumptions

Accident Cost Parameter Inputs			
Cost of Fatality (K)	$	10,900,000	2019$ / event
Cost of Incapacitating Injury (A)	$	521,300	
Cost of Non-Incapacitating Injury (B)	$	142,000	
Cost of Possible Injury (C)	$	72,500	
Cost of No Injury (O)	$	3,700	
Cost of Injury--Severity Unknown (U)	$	197,600	
Cost of Damaged Vehicle (PDO)	$	4,500	2019$ / vehicle
Vehicles per Crash		1.83	vehicles / crash
Injury and Fatality Rates			
Fatalities per FI Crash		0.07	fatalities / crash
Injuries per FI Crash		1.48	injuries / crash

Alternative injury and fatality rates are also included as a sensitivity test. These alternative rates are calculated using observed crashes, injuries, and fatalities along the US-275 corridor during calendar years 2014-2018. State-wide Nebraska "Rural" and "Other State Highways" accidents were employed as the "base case" assumptions due to the larger sample size that the state-wide numbers provide. For example, while a fatality did occur on US-275 just east of the N-15 interchange during the 2014-2018 calendar years, zero fatalities were recorded on the corridor between N-57 and N-15 during this time period. The lack of observed fatalities during that time does not imply, however, that zero fatalities would occur on the same stretch over a 30-year future period of operation if road conditions remain unchanged.

Table 7: Alternative Sensitivity Parameter Assumptions

Alternative Injury and Fatality Rates		
Fatalities per crash, excluding PDO crashes	0.00	Nebraska DOT. Historic Crash Statistics: US-275 from N-57 to Wisner, 2014 - 2018.
Injuries per crash, excluding PDO crashes	1.77	

Benefit Estimates

Table 9 shows that at a 7 percent discount rate the present value safety benefits amount to approximately $18.9 million.

Table 8: Estimates of Safety Benefits, 2019 Dollars

	Over the Project Lifecycle	
	In Constant Dollars	Discounted at 7 percent
Crash Reduction	**$83.0 million**	**$18.9 million**

Freight Movement and Economic Vitality

The proposed project would contribute to enhanced freight movement and economic vitality through improvements in the mobility of people and goods within and through the study area. Two types of mobility benefits include travel-time savings and vehicle operating cost savings.

It is important to note that improvement to the current Norfolk to N-15 segment of US-275 is just one element of a broader US-275 expansion effort. Accordingly, due to network effects, the total economic benefit of a fully widened US-275 through northeast Nebraska is greater than the sum of its parts, and additional system benefits exist beyond those quantified in this analysis.

Methodology – Travel-Time Savings

Widening of US-275 from a two-lane to a four-lane corridor and improving intersections along the corridor will reduce traffic delays and increase the reliability of the roadway. The traffic technical memorandum that accompanies this application explains the methodology used to develop estimates of travel-time savings associated with this project. The resulting projections for increased roadway reliability and decreased roadway delay for the No-Build and Build scenarios are presented in the table below.

Table 9: Summary of Decreased Delay Benefits

	2019	2025		2030		2035		2045	
	Existing	No-Build	Build	No-Build	Build	No-Build	Build	No-Build	Build
	Norfolk to N-15								
VHT60	71	92	75	112	90	135	107	187	143
Annual Delay (veh-hrs)	308,957	400,339	326,363	487,369	391,636	587,453	465,611	813,732	622,266

Assumptions – Travel-Time Savings

The parameter assumptions used in the estimation of travel-time benefits are summarized in Table 10. These parameter assumptions were applied to the corridor delay projections above to calculate travel-time benefits.

Truck percentage assumptions were calculated from observed traffic data. All other parameter inputs are sourced from USDOT, *Benefit-Cost Analysis Guidance for Discretionary Grant Programs*, Appendix A, Tables A-3 and A-4.

Table 10: Assumptions Used in the Estimation of Travel Time Savings

Travel Time Parameters			
Truck Percentage, N-57 to N-15	23.6% to 31.3%		%
Passenger Vehicle Average Vehicle Occupancy (AVO)	1.67		persons / vehicle
Truck Average Vehicle Occupancy (AVO)	1.00		
Value of Time, All Purposes Local Travel	$	17.90	2019$ / hour
Value of Time, Truck Drivers	$	30.80	

Benefit Estimates – Travel-Time Savings

Table 11: Estimates of Travel-Time Benefits, 2019 Dollars

	Over the Project Lifecycle	
	In Constant Dollars	Discounted at 7 percent
Travel Time Savings	**$159.0 million**	**$31.4 million**

Vehicle Operating Cost Savings

Another benefit associated with increased roadway reliability and decreased travel times relates to lower vehicle operating costs. More consistent travel speeds and reduced delays mean that cars and trucks do not spend as much time idling in traffic and that cars and trucks are less likely to need to brake when traveling US-275. Less braking will reduce wear-and-tear on vehicles, and less time spent idling in delays will reduce fuel expenditures. Improved roadway surface conditions (discussed in in the infrastructure condition section below) will also reduce vehicle wear-and-tear. While these benefits will be realized by vehicles traveling the US-275 corridor, they are conservatively not quantified in this BCA.

Infrastructure Condition

In addition to improving safety and travel speeds along the US-275 corridor – primarily through widening the roadway and improving intersections – this project will also employ a 3R strategy to improve the roadway surface of the existing two lanes of US-275. As a result of this roadway

improvement, as well as the reduced traffic in any given lane due to the addition of lanes, roadway operation and maintenance cost benefits will be achieved.

Methodology and Assumptions – Operations & Maintenance Savings

Per NDOT, through 2019, the current 5-year average roadway maintenance cost for the relevant two-lane section of the US-275 corridor is $2,695 per year per mile. Following a 3R roadway treatment, it is expected that the new 5-year average roadway maintenance cost for the expanded four-lane section of the US-275 corridor will be $1,333 per year per mile. This $1,362 annual savings will be realized over every mile in each year of the project's benefits period.

Benefit Estimates – Operations & Maintenance Savings

Table 12: Estimates of Operations & Maintenance Savings, 2019 Dollars

	Over the Project Lifecycle	
	In Constant Dollars	Discounted at 7 percent
US-275: Norfolk to N-15	**$400 thousand**	**$96 thousand**

Methodology and Assumptions – Residual Land Value

Included in the project's cost is the $1.7 million (in 2019 dollars) acquisition of additional land for roadway right-of-way. This land will retain its value beyond the benefits period. This residual land value is quantified and included in the BCA.

Benefit Estimates – Residual Land Value

Table 13: Estimates of Residual Land Value, 2019 Dollars

	Over the Project Lifecycle	
	In Constant Dollars	Discounted at 7 percent
Residual Land Value	**$1.7 million**	**$0.1 million**

Environmental Sustainability

Reducing vehicle delays along the US-275 corridor will contribute to improved air quality by reducing vehicle emissions. As vehicles spend less time sitting in traffic and are able to travel at more consistent speeds, they will reduce their emissions relative to a roadway design that necessitates braking, acceleration, and idling. The monetized value of these reduced emissions is not included in this BCA, but emissions benefits would still likely be realized as a result of this project.

Summary of Findings and BCA Outcomes

The tables below summarize the BCA findings. Annual costs and benefits are computed over the lifecycle of the project (nine years of planning and construction followed by 30 years of operations). As previously stated, construction is expected to be completed in 2027. Benefits accrue during the full operation of the project.

Table 14: Overall Results of the Benefit Cost Analysis, 2019 Dollars

Project Evaluation Metric	7% Discount Rate	3% Discount Rate
Total Discounted Benefits	$50.6 million	$117.8 million
Total Discounted Costs	$50.7 million	$64.2 million
Net Present Value	-$117 thousand	$53.5 million
Benefit / Cost Ratio	1.00	1.83
Internal Rate of Return (%)	7.0%	
Discounted Payback Period	N/A	26 years

Considering all monetized benefits and costs, the project's estimated internal rate of return is 7.0 percent. With a 7 percent real discount rate, the $50.7 million investment would result in $50.6 million in total benefits and a Benefit/Cost ratio of 1.00.

Table 15: Benefit Estimates by Long-Term Outcome for the Full Build Alternative

Primary Selection Criteria	Benefits	7% Discount Rate
Safety	Improved safety along US-275 corridor	$18.9 million
Infrastructure Condition	Reduced road maintenance expenses	$0.1 million
Freight Movement and Economic Vitality	Residual land value	$0.1 million
Congestion Reduction	Improvements to roadway and intersections improve level of service, reducing delay and increasing travel speed	$31.4 million
System Reliability		Non-monetized
Environmental Sustainability	Reduced idling and more consistent travel speeds along roadway reduce energy consumption and emissions	Non-monetized
Reduced Project Delivery Delays	2+2 construction will allow for roadway construction without interrupting existing travel patterns	Non-monetized

Total Benefit Estimates	**$50.6 million**

BCA Sensitivity Analysis

The BCA outcomes presented in the previous sections rely on assumptions and long-term projections, both of which are subject to considerable uncertainty.

The primary purpose of the sensitivity analysis is to help identify the variables and model parameters whose variations have the greatest impact on the BCA outcomes: the "critical variables."

The sensitivity analysis can also be used to:

- Evaluate the impact of changes in individual critical variables – how much the final results would vary with reasonable departures from the preferred or most likely value for the variable; and
- Assess the robustness of the BCA and evaluate whether the conclusions reached under the preferred set of input values are significantly altered by reasonable departures from those values.

The outcomes of the sensitivity analysis for the Nebraska US-275 Norfolk to N-15 Project, using a 7 percent discount rate, are summarized in the table below. The table provides the project NPVs associated with variations in variables or parameters (listed in row), as indicated in the column headers.

Table 16: Quantitative Assessment of Sensitivity, Summary

Parameters	Change in Parameter Value	New NPV	New B/C Ratio
Include "Reliability & Delay Adjustment Factor" to Quantify Reliability Benefit	Increase value of travel-time savings by 25%	$7.7 MM	1.15
Benefits Period	Benefits Period of 25 Years	-$4.9 MM	0.90
Accelerated Construction Schedule	Accelerate Construction Schedule to Finish at Year-End 2026	$1.0 MM	1.02
Observed Injury and Fatality Rates: N-57 to N-15, 2014-2018	Decrease in fatalities and increase in injuries per FI crash	-$12.8 MM	0.75
Operations & Maintenance Savings	Remove O&M cost savings benefits from the analysis	-$0.2 MM	1.00

Appendix B

Environmental Justice

To: File
From: HDR
Date: 25 October 2023
RE: Environmental Justice and Limited English Proficiency Analysis, 32319, S-275-6(1052), Norfolk - Wisner

Environmental Justice and Limited English Proficiency Analysis, 32319, S-275-6(1052), Norfolk - Wisner

1 Environmental Justice Regulatory Background and Overview of Methodology

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was signed on February 11, 1994, and requires that, to the extent practicable and permitted by law, low-income or minority populations must not be subject to disproportionately high and adverse human health or environmental effects as a result of a proposed project. Federal agencies must take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of low-income and minority populations. Also, representatives of any low-income or minority populations in the community that may be affected by a project must be given the opportunity to be included in the impact assessment and public involvement process.

On June 14, 2012, Federal Highway Administration (FHWA) issued Order 6640.23A, *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, which established policies and procedures for the FHWA and state transportation agencies to use in complying with Executive Order 12898. The Order provided definitions for multiple terms and concepts applicable to this analysis.

> *Adverse Effects* are defined as "the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness or death; air, noise, and water pollution and soil contamination; destruction or disruption of human-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of FHWA programs, policies, or activities."
>
> A *Disproportionately High and Adverse Effect to Low-Income and Minority Populations* is defined as an adverse effect that:

1. is predominately borne by a minority population and/or a low-income population; OR

2. will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low-income population.

Minority is defined as a person who is:

1. Black: a person having origins in any of the black racial groups of Africa;

2. Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;

3. Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia or the Indian subcontinent;

4. American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; OR

5. Native Hawaiian and Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa or other Pacific Islands.

A Low-Income person is defined as a person whose median household income is at or below the federal poverty threshold as defined by the Census Bureau. The federal poverty threshold is used for calculating all official poverty population statistics and are updated annually by the Census Bureau.

A *Minority Population* is defined as any readily identifiable group of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.

A *Low-Income* population is defined as any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.

In a December 16, 2011, memorandum titled *Guidance on Environmental Justice and NEPA*, the FHWA laid out a basic methodology for performing Environmental Justice analysis. Nebraska Department of Transportation (NDOT) has adopted an Environmental Justice methodology which follows the basic framework of the 2011 memorandum, but expands upon a few vague or undefined concepts. The methodology described in the following bullets was developed by NDOT in coordination with FHWA and was used to analyze demographic information from the US Census to identify both minority and

low-income populations for the US 275 area of affect shown in the attached map. An abbreviated overview of NDOT Environmental Justice methodology is as follows:

1. Using localized census data and other relevant information sources, data is gathered and readily identifiable groups or clusters of minority or low-income persons in the EJ study area are listed. Small clusters or dispersed populations are not overlooked. Study area data is also compared with the data of larger, identifiable areas (census tracts, cities, counties, NDOT districts, etc.) to determine the proportion of minority and low-income persons present in the study area. If the project or any detour routes are entirely within a city, the localized data is compared to the city. If the project or any detour routes are wholly or partially outside of a city, the localized data is compared to the county.

2. Minority and low-income populations are identified where:

   (a) A readily identifiable group or cluster of minority or low-income persons is located in the EJ study area (for example, a low-income housing complex, or a workplace of mostly minority persons); OR

   (b) The minority or low-income population of the study area exceeds 50 percent; OR

   (c) The minority or low-income population percentage of the affected area is *meaningfully greater* than the minority population percentage in the general population or other appropriate unit of geographic analysis. The *meaningfully greater* standard is fact-dependent and requires professional judgment, but in most cases *meaningfully greater* is approximately 6 to 8 percent or above.

3. If minority and/or low-income populations are not present in the EJ study area, the analysis is concluded.

4. If minority and/or low-income populations are present in the EJ study area, potential disproportionately high and adverse effects of the proposed project are examined. If none are identified, the analysis is concluded.

5. If minority and/or low-income populations are present in the EJ study area, and potential disproportionately high and adverse effects of the proposed project have been identified, proposed mitigation will be considered. Commonly, the application of effective mitigation techniques can reduce or eliminate adverse effects that might otherwise fall disproportionately upon minority and low-income populations.

6. Finally, the analysis concludes with a determination that the proposed project either will or will not result in disproportionately high and adverse effects to minority and low-income populations.

Executive Order 13166, *Improving Access to Services for Persons with Limited English Proficiency,* signed August 11, 2000, requires federal agencies to improve access to federally conducted and federally assisted programs and activities for persons who, as a result of national origin, have limited

English proficiency (LEP). Each Federal agency shall examine the services it provides and develop and implement a system by which LEP persons can meaningfully access those services consistent with, and without unduly burdening, the fundamental mission of the agency. Individuals who do not speak English as their primary language and who have a limited ability to read, write, speak, or understand English are considered to have limited English proficiency. According to US Department of Transportation (DOT) Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient Persons published in the Federal Register December 14, 2005, populations likely to include LEP persons who are served or encountered by DOT programs or projects and should be considered when planning language services include, but are not limited to, persons living in areas affected or potentially affected by transportation projects. NDOT has adopted the following methodology to identify LEP in the project area and the potential need for language assistance:

- Use US Census and other data to determine the languages spoken in and around the project location, including along a detour route. The affected area considered might be larger or smaller depending on the project size, type, and location, but the analysis considers the language data of the block groups within US Census tracts where the project is situated and if applicable where the detour route is proposed, and the surrounding contiguous US Census tracts. The "affected area" is not simply the area directly impacted by the project, or the area within the physical limits of the project. Affected areas include those indirectly affected by transportation projects (for example, as a result of detours or increased traffic congestion). LEP persons will include all persons who speak a language other than English, and also speak English "Less Than Very Well," as defined by the American Community Survey. American Community Survey data breaks out LEP by Spanish, Other Indo-European languages, Asian, and "Other" Languages.

- If a language other than English is spoken in the affected area, and English is spoken less than very well by 5 percent or greater of the population, or 1,000 persons or greater for any one specific language, any written information released to the public will be translated into the appropriate language(s). This includes, for example, NEPA scoping letters, legal notices, door-to-door handouts, project information sheets, or comment forms. If appropriate, this information will make clear to the LEP persons that an interpreter will be available, free of cost, at a public meeting. NDOT will identify sources of media frequently used by LEP populations in an affected area (such as local or ethnic newspapers, radio stations, etc.) so that meeting notices can be included in those media notifications.

- If a language other than English is spoken in the affected area by 5 percent or greater of the population, but the number of LEP persons is less than 50, written information released to the public prior to the public meeting will include a block of text, translated into the applicable language(s), stating that LEP persons have the right to receive competent oral interpretation of those written materials, free of cost.

2 Project Location and Description

This project is 16.0 miles in length and is located on U.S. Highway 275 (US-275) in Stanton and Cuming Counties, starting 0.30 mile west of the junction of US-275 and Nebraska Highway 57 (N-57) and extending east to 0.25 mile southeast of the west corporate boundary of Wisner. Construction

may begin and/or end approximately 500 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement.

The improvements on this project consist of expanding the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway on one side of the existing US-275 (called "2+2 Construction" by NDOT). In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 (N-15) at two locations and Nebraska Highway 51 (N-51) northwest of Wisner, along with various county roads. Additional work would consist of concrete repairs, culvert work, trench widening, removing and replacing pavement, bridge repairs, bridge replacement, lighting, and signing & striping. Grading would be required for the entire length of this project.

There are eight bridge-sized structures located along the project. These structures cross: a tributary of Payne Creek (Structure Number S275 08742), Payne Creek (Structure Number S275 08860), Humbug Creek (Structure Number S275 09309), three tributaries of the Elkhorn River (Structure Numbers S275 09504, S275 09508, S275 10009), a tributary of Sand Creek (Structure Number S275 09644), and Sand Creek (Structure Number S275 09803). The structures would be extended, replaced, or used in place as determined at the Plan-In-Hand. A grade raise of the entire structure is anticipated at S275 08742 and S275 08860. Work would be required in the waterways of all the structures. The limits of pavement replacement would be determined by Roadway Design. Guardrail would be replaced.

This project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Some county roads would not be constructed under traffic. Traffic would be detoured utilizing adjacent county roads; work would not be required on those routes. Additional property rights would be required to build this project. Access to adjacent properties would be maintained during construction but may be limited at times due to phasing requirements. Details would be determined at the construction meeting.

3 Examination of Study Area Population: Census Data and Other Observations

The data on minority persons have been collected from the 2020 Census Redistricting Data, Table P2. The data on low-income and LEP persons have been compiled from 2016-2020 American Community Survey 5-year estimates, Table B17021 and Table B16004, respectively.

The Environmental Justice and LEP data for this project is as follows:

Geographic area name	Total	Black/ African American	American Indian/ Alaska Native	Asian	Native Hawaiian/ Pacific Islander	Hispanic/ Latino	Total Minority
Block Group 1, Census Tract 9621, Stanton County, Nebraska	760	0.0%	0.0%	0.4%	0.1%	5.5%	6.1%
Block Group 1, Census Tract 9622, Stanton County, Nebraska	1,490	0.6%	1.5%	0.2%	0.1%	8.7%	11.1%
Block Group 1, Census Tract 9727, Cuming County, Nebraska	1,590	0.1%	0.0%	0.0%	0.1%	6.5%	6.7%
Wisner city, Nebraska	1,239	0.1%	0.0%	0.0%	0.2%	6.9%	7.2%
Cuming County, Nebraska	9,013	0.2%	0.3%	0.2%	0.1%	12.3%	13.2%
Stanton County, Nebraska	5,842	0.4%	0.5%	0.3%	0.1%	6.0%	7.3%
Nebraska	1,961,504	4.8%	0.8%	2.7%	0.1%	12.0%	20.3%

Data on minority persons collected from 2020 Redistricting Data, Table P2.

Geographic area name	Total	Income in the past 12 months below poverty level	Project / Detour
Block Group 1, Census Tract 9621, Stanton County, Nebraska	848	8.0%	Project Only
Block Group 1, Census Tract 9622, Stanton County, Nebraska	1,367	10.3%	Project Only
Block Group 1, Census Tract 9727, Cuming County, Nebraska	1,648	5.1%	Project Only
Wisner city, Nebraska	1,321	5.9%	
Cuming County, Nebraska	8,721	4.9%	
Stanton County, Nebraska	5,881	6.2%	
Nebraska	1,869,467	10.4%	

Data on low-income persons collected from American Community Survey 2016-2020 5-Year Estimates, Table B17021

Geographic area name	Population age 5 and above	% of population age 5 and above that speak only English	Languages other than English spoken by 1,000 persons or more than 5% of the total population age 5 and above*
Block Group 1, Census Tract 9621, Stanton County, Nebraska	813	95.9%	None
Block Group 1, Census Tract 9622, Stanton County, Nebraska	1,233	92.2%	None
Block Group 1, Census Tract 9727, Cuming County, Nebraska	1,577	97.1%	None
Affected Area**	3,623	95.2%	Spanish - 2.6% (95) Indo-European - 0.0% (0) Asian - 0.0% (0) Other - 0.0% (0)

All data from American Community Survey 2016-2020 5-Year Estimates, Table B16004.

*These figures reflect the population of an area that speaks a language other than English, and also speaks English 'Less than Very Well', in percentage and number.

** Percentage and number of LEP individuals in the area affected by the project and detour areas.

Note: "Other Indo-European languages" includes German, Italian, and French, etc. "Other languages" includes Arabic, Hebrew, and Navajo, etc.

The project is located within Block Group 1, Census Tract 9621 and Block Group 1, Census Tract 9622, Stanton County, and Block Group 1, Census Tract 9727, Cuming County, Nebraska and within the city of Wisner (see attached map). The following table shows whether these block groups contain EJ populations based on the methodology contained in Section 1.

Geographic Area	Readily Identifiable Group or cluster of persons present?		Population of the study area exceed 50%		Population of the study area is meaningfully greater (6% or more higher than the State of Nebraska)		EJ population identified in the study area?
	Minority	Low Income	Minority	Low Income	Minority	Low Income	
Block Group 1, Census Tract 9621, Stanton County, Nebraska	No	No	No	No	No	No	No

Block Group 1, Census Tract 9622, Stanton County, Nebraska	No	No	No	No	No	No	No
Block Group 1, Census Tract 9727, Cuming County, Nebraska	No	No	No	No	No	No	No

The 2020 data for all block groups within the study area indicate percentages of minority persons that are not meaningfully greater than the corresponding percentages for Stanton and Cuming County. No minority populations are present under the methodology discussed in Section 1.

The 2016-2020 data for all block groups within the study area indicate percentages of low-income persons that are not meaningfully greater than the corresponding percentages for Stanton and Cuming Counties. No low-income populations are present under the methodology discussed in Section 1.

Considering the total population affected by the project, none of the data indicates the presence of an LEP population that reaches the NDOT LEP outreach triggers of 5 percent or 1,000 persons.

Minority and low-income populations are not present based on the methodology discussed in Section 1. There were no LEP language groups that meet NDOT's methodology requiring advance language accommodations. NDOT would provide language assistance should it be requested. An Environmental Justice and LEP analysis memorandum is not required.

Baker, Kimberly K

Digitally signed by Baker, Kimberly K
Date: 2023.11.03 14:04:19 -05'00'

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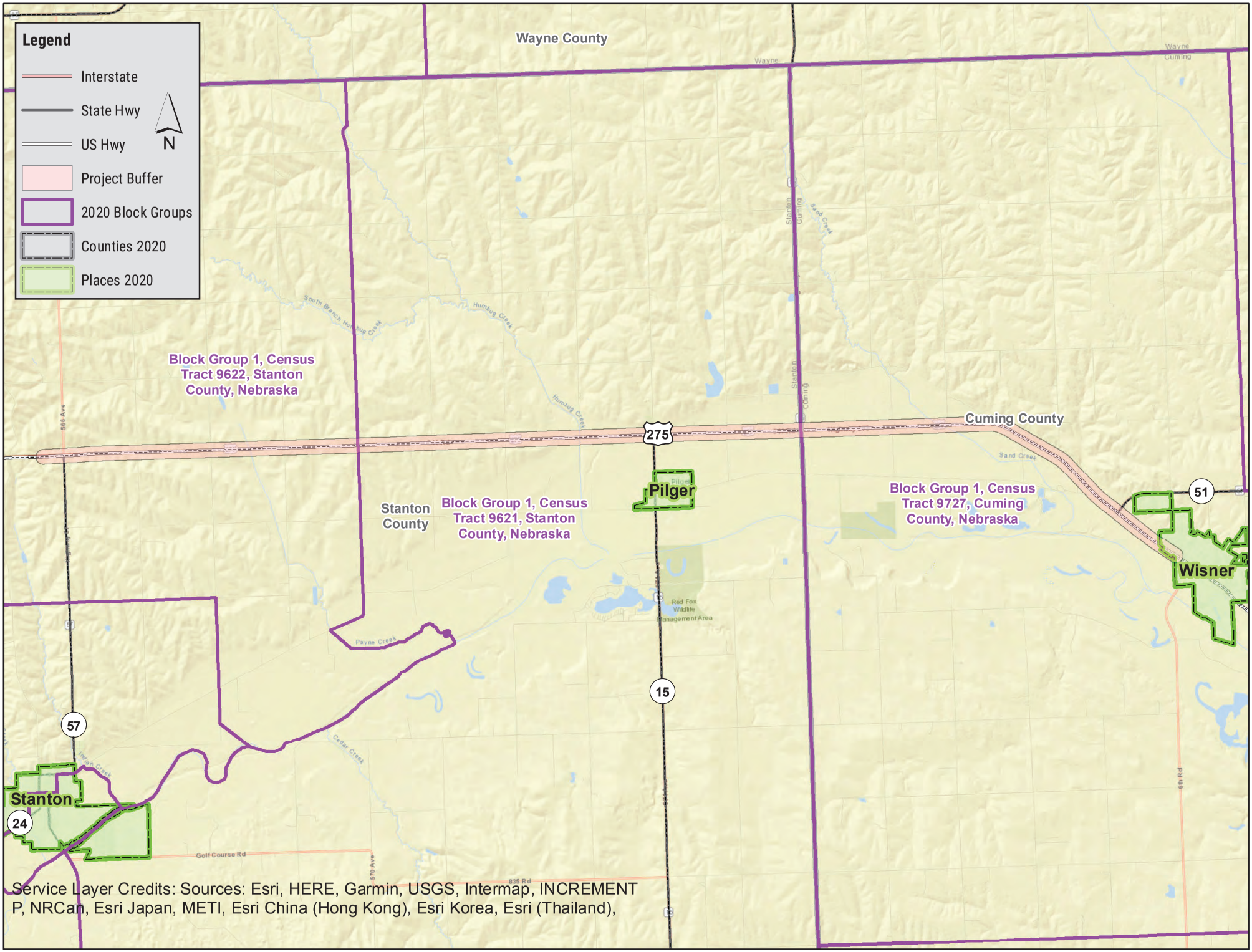
Legend
Interstate
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Wayne County
Block Group 1, Census Tract 9622, Stanton County, Nebraska
Cuming County
275
Pilger
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Block Group 1, Census Tract 9621, Stanton County, Nebraska
Block Group 1, Census Tract 9727, Cuming County, Nebraska
51
Wisner
15
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Stanton
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Golf Course Rd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand),

Appendix C

Section 6(f)

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February 14, 2020

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NE Department of Transportation
PO BOX 94759
Lincoln, NE 68509-4759

RE: LWCF 200305(f)(3) Request for S-275-6(1052) Norfolk – Wisner C. N. 32319
NO IMPACT

Sarah Soula:

I have reviewed the project plans associated with LWCF 200305(f)(3) request for S-275-6(1052) Norfolk – Wisner C. N. 32319. There does not appear to be any properties associated with LWCF Act, 54 U.S.C. 200305(f)(3) (formerly LWCF Section 6(f)(3)), within the vicinity of the project area. No further action is needed to proceed under LWCF Act, 54 U.S.C. 200305(f)(3). Consider this letter as your permission to continue with the project as outlined in the project plan(s).

Please contact me if you need any additional information or you have any further questions regarding this review. Thank you for the opportunity to review this project.

Sincerely,

Schuyler Sampson
Recreation Planner/ASLO
Phone: 402.471.5283
schuyler.sampson@nebraska.gov

cc: Kevin Domogalla – NDOT District 23 Engineer

Appendix C

Section 6(f)

2200 N. 33rd St. • P.O. Box 30370 • Lincoln, NE 68503-0370 • Phone: 402-471-0641

February 14, 2020

Sarah Soula
NDOT Public Involvement
NE Department of Transportation
PO BOX 94759
Lincoln, NE 68509-4759

RE: LWCF 200305(f)(3) Request for S-275-6(1052) Norfolk – Wisner C. N. 32319
NO IMPACT

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I have reviewed the project plans associated with LWCF 200305(f)(3) request for S-275-6(1052) Norfolk – Wisner C. N. 32319. There does not appear to be any properties associated with LWCF Act, 54 U.S.C. 200305(f)(3) (formerly LWCF Section 6(f)(3)), within the vicinity of the project area. No further action is needed to proceed under LWCF Act, 54 U.S.C. 200305(f)(3). Consider this letter as your permission to continue with the project as outlined in the project plan(s).

Please contact me if you need any additional information or you have any further questions regarding this review. Thank you for the opportunity to review this project.

Sincerely,

Schuyler Sampson
Recreation Planner/ASLO
Phone: 402.471.5283
schuyler.sampson@nebraska.gov

cc: Kevin Domogalla – NDOT District 23 Engineer

Appendix D

Farmland

Memo

Date: Thursday, October, 2023

Project: 32319: Norfolk – Wisner (S-275-6(1052))

Subject: Rationale for NRCS-CPA-106

The federal Farmland Protection Policy Act of 1981 (FPPA; 7 CFR 658) was enacted to minimize unnecessary conversion of farmland to other uses as a result of federal decisions. In addition, the FPPA states that federal programs should be compatible with state and local policies or programs that protect farmland. The Natural Resources Conservation Service (NRCS) oversees FPPA compliance. The NRCS-CPA-106 (Farmland Conversion Impact Rating For Corridor Type Projects) form is used to evaluate farmland impacts from federal projects. A separate CPA-106 form was completed for Stanton and Cuming County and the rationale for the applicant's responses for each county is detailed below.

Stanton County

Part III.

A. Total Acres to be Converted Directly = acreage of farmland in the preliminary impact area – 213 acres

C. Total Acres in Corridor = acreage of farmland that would be converted directly or indirectly – 213 acres

Part VI.

1. *How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?* (0 to 15 pts.)

   Area in non-urban use within 1 mile of the centerline of the project was determined to be approximately 99%. This determination was made quantitatively based on a 1-mile buffer of the alignment compared to the latest census boundaries for cities (Pilger).

   Points assigned: 15

2. *How much of the perimeter of the site borders on land in nonurban use* (0 to 10 pts.)

   The perimeter of project is 50% non-urban use.

   Points assigned: 5

3. *How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than 5 of the last 10 years?* (0 to 20 pts.)

   Total area of farmland within the corridor is 213 acres and 91% is being farmed.

   Points assigned: 20

4. *Is the site subject to State or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?* (0 or 20 pts.)

Nebraska has no local or state protection programs specifically addressing conversion of Prime Farmland.

Points assigned: 0

5. *Are the farm units containing the site (before the project) as large as the average-size farming unit in the county?* (Average farm sizes in each county are available from the NRCS field offices in each State. Data are from the latest available Census of Agriculture, Acreage of Farm Units in Operation with $1,000 or more in sales.) (0 to 10 pts.)

Average farm for Stanton County is 466 acres. The size of farmed parcels owned by the same entity and impacted by the Project ranges from 1 acre to 745 acres.

Points assigned: 2

6. *If the site is chosen for the project, how much of the remaining land on the farm will become nonfarmable because of interference with land patterns?* (0 to 25 pts.)

There would be no creation of non-farmable land with the project. No parcel of land would be inaccessible. All parcels adjacent to converted farmland would remain farmable.

Points assigned: 0

7. *Does the site have available adequate supply of farm support services and markets (i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets)? (0 to 5 pts.)*

Location has availability to all services.

Points assigned: 5

8. *Does the site have substantial and well-maintained on-farm investments, such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures? (0 to 20 pts.)*

25 of the 39 farms (defined as farmed parcels owned by the same entity) within and adjacent to the site have investments somewhere on the farm (beyond just the site). There are 16 farmsteads, outbuildings, and/or cattle operations, two terraces, 11 irrigation center pivots, and one reservoir within the affected farms. Most of these improvements are not within the site. There are eight pivots within the site, one grain silo, and one outbuilding. The portion of pivots within the site are the spray area and/or wheel tracks. These center pivots would need to be shortened by one to two wheel tracks. The irrigation wells or center pivot points within the site would not be impacted. Each farm was evaluated for improvements and given a score from 0 to 20 based on impacts on investments within the site but also considering impacts on the overall farm if the site impacts affected the operation of the remainder of the farm. The total score of farm investments was averaged across all the farms within the site. Due to the lack of on-farm investments physically within the site, the investments are considered moderate.

Points assigned: 10

9. *Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area? (0 to 25 pts.)*

There would not be a significant reduction in demand for support services if the 213 acres of farmland are converted to NDOT ROW. The 213 acres of farmland to be converted represents less than 1 percent of the 238,258 acres of farmland in Stanton County.

Points assigned: 0

10. *Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use? (0 to 10 pts.)*

Proposed project is fully compatible with existing agricultural use. Access to agricultural fields may be changed but will still be present following construction. The project would improve transportation and would benefit farmers in the Study Area. The project would not likely result in the conversion of surrounding farmland to nonagricultural use.

Points assigned: 0

Total Points assigned for Part VI: 57

Cuming County

Part III.

A. Total Acres to be Converted Directly = acreage of farmland in the preliminary impact area – 111 acres

D. Total Acres in Corridor = acreage of farmland that would be converted directly or indirectly – 111 acres

Part VI.

1. *How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?* (0 to 15 pts.)

Area in non-urban use within 1 mile of the center the centerline of project was determined to be approximately 98%. This determination was made quantitatively based on a 1-mile buffer of the alignment compared to the latest census boundaries for cities (Wisner).

Points assigned: 15

2. *How much of the perimeter of the site borders on land in nonurban use* (0 to 10 pts.)

The perimeter of project was estimated at 50% non-urban use.

Points assigned: 5

3. *How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than 5 of the last 10 years?* (0 to 20 pts.)

Total area of farmland within the corridor is 111 acres and 94% is being farmed.

Points assigned: 20

4. *Is the site subject to State or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?* (0 or 20 pts.)

Nebraska has no local or state protection programs specifically addressing conversion of Prime Farmland.

Points assigned: 0

5. *Are the farm units containing the site (before the project) as large as the average-size farming unit in the county?* (Average farm sizes in each county are available from the NRCS field offices in each State. Data are from the latest available Census of Agriculture, Acreage of Farm Units in Operation with $1,000 or more in sales.) (0 to 10 pts.)

Average farm for Cuming County is 452 acres. The size of farmed parcels owned by the same entity and impacted by the Project ranges from 3 acres to 860 acres.

Points assigned: 4

6. *If the site is chosen for the project, how much of the remaining land on the farm will become nonfarmable because of interference with land patterns?* (0 to 25 pts.)

There would be no creation of non-farmable land with the project. No parcel of land would be inaccessible. All parcels adjacent to converted farmland would remain farmable.

Points assigned: 0

7. *Does the site have available adequate supply of farm support services and markets (i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets)? (0 to 5 pts.)*

Location has availability to all services.

Points assigned: 5

8. *Does the site have substantial and well-maintained on-farm investments, such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures? (0 to 20 pts.)*

9 of the 13 farms (defined as farmed parcels owned by the same entity) within and adjacent to the site have investments somewhere on the farm (beyond just the site). There are 8 farmsteads, outbuildings, and/or cattle operations and 7 irrigation center pivots within the affected farms. Most of these improvements are not within the site. There are four pivots within the site with the portion of pivots within the site being the spray area, wheel tracks, and/or irrigation wells. One center pivot would need to be shortened by one to two wheel tracks. Three irrigation wells or center pivot points would potentially need to be relocated. Each farm was evaluated for improvements and given a score from 0 to 20 based on impacts on investments within the site but also considering impacts on the overall farm if the site impacts affected the operation of the remainder of the farm. The total score of farm investments was averaged across all the farms within the site. Due to the lack of on-farm investments physically within the site, the investments are considered moderate.

Points assigned: 10

9. *Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area? (0 to 25 pts.)*

There would not be a significant reduction in demand for support services if the 91 acres of farmland are converted to NDOT ROW. The 91 acres of farmland to be converted represents less than 1 percent of the 383,286 acres of farmland in Cuming County.

Points assigned: 0

10. *Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use? (0 to 10 pts.)*

Proposed project is fully compatible with existing agricultural use. Access to agricultural fields may be changed but will still be present following construction. The project would improve transportation and would benefit farmers in the Study Area. The project would not likely result in the conversion of surrounding farmland to nonagricultural use.

Points assigned: 0

Total Points assigned for Part VI: 59

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request **5/5/23**	4. Sheet 1 of **2**
1. Name of Project **Norfolk - Wisner**	5. Federal Agency Involved **Federal Highway Administration**	
2. Type of Project **Expressway**	6. County and State **Stanton County, Nebraska**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☐ NO ☐		4. Acres Irrigated / Average Farm Size
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction **Acres:** **%**	7. Amount of Farmland As Defined in FPPA **Acres:** **%**
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment ____ Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	213			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0			
C. Total Acres In Corridor	213			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*				
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — Maximum Points				
1. Area in Nonurban Use — 15	15			
2. Perimeter in Nonurban Use — 10	5			
3. Percent Of Corridor Being Farmed — 20	20			
4. Protection Provided By State And Local Government — 20	0			
5. Size of Present Farm Unit Compared To Average — 10	2			
6. Creation Of Nonfarmable Farmland — 25	0			
7. Availablility Of Farm Support Services — 5	5			
8. On-Farm Investments — 20	10			
9. Effects Of Conversion On Farm Support Services — 25	0			
10. Compatibility With Existing Agricultural Use — 10	0			
TOTAL CORRIDOR ASSESSMENT POINTS — 160	57	0	0	0
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100	0	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	57	0	0	0
TOTAL POINTS *(Total of above 2 lines)* — 260	57	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
A	**213**	**5/5/23**	YES ☐ NO ☑

5. Reason For Selection:

Engineering considerations

Signature of Person Completing this Part: **Carmen Modrcin, HDR**

DATE **5/5/23**

NOTE: Complete a form for each segment with more than one Alternate Corridor

Clear Form

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request **5/5/23**	4. Sheet 1 of **2**
1. Name of Project **Norfolk - Wisner**	5. Federal Agency Involved **Federal Highway Administration**	
2. Type of Project **Expressway**	6. County and State **Cuming County, Nebraska**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☐ NO ☐		4. Acres Irrigated | Average Farm Size
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction **Acres:** **%**	7. Amount of Farmland As Defined in FPPA **Acres:** **%**
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment ____ Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	111			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0			
C. Total Acres In Corridor	111			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*				
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — Maximum Points				
1. Area in Nonurban Use — 15	15			
2. Perimeter in Nonurban Use — 10	5			
3. Percent Of Corridor Being Farmed — 20	20			
4. Protection Provided By State And Local Government — 20	0			
5. Size of Present Farm Unit Compared To Average — 10	4			
6. Creation Of Nonfarmable Farmland — 25	0			
7. Availablility Of Farm Support Services — 5	5			
8. On-Farm Investments — 20	10			
9. Effects Of Conversion On Farm Support Services — 25	0			
10. Compatibility With Existing Agricultural Use — 10	0			
TOTAL CORRIDOR ASSESSMENT POINTS — 160	59	0	0	0
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100	0	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	59	0	0	0
TOTAL POINTS *(Total of above 2 lines)* — 260	59	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
A	**111**	**5/5/23**	YES ☐ NO ☑

5. Reason For Selection:

Engineering considerations

Signature of Person Completing this Part: **Carmen Modrcin, HDR**

DATE **5/5/23**

NOTE: Complete a form for each segment with more than one Alternate Corridor

Appendix E

Community Impact Assessment

Norfolk–Wisner
Community Impact Assessment

Project Number: S-275-6(1052)
Control Number: 32319

November 2023

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

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A Figures

1. Introduction

The National Environmental Policy Act of 1969 (NEPA) requires that federal agencies assess a proposed project's effects on the environment, and then avoid, minimize, or mitigate adverse effects. The environment includes not only the natural and physical environment, but also the human environment and the relationship between people and the environment. A community impact assessment (CIA) is a crucial component of the environmental review process because it considers how a proposed project may affect the people, institutions, neighborhoods, communities, organizations, and larger social and economic systems in the project's vicinity. This CIA is a part of the larger NEPA assessment and is a comprehensive evaluation of the proposed project's effects on the human environment in the defined study area. The analysis also considers minority and low-income populations and persons with limited English proficiency (LEP).

2. Methodology

The methodology used to determine the Project's impacts, benefits, and burdens on the community involve the following:

1. Reviewing the project information
2. Defining the study area
3. Collecting baseline data, including input received from the public
4. Preparing a community profile
5. Evaluating the impact of transportation improvements on community characteristics
6. Identifying measures to avoid, minimize, and mitigate community impacts

2.1 Project Information

The proposed US Highway 275 (US-275) Norfolk–Wisner Project (Project) would improve approximately 16 miles of US-275 in Stanton and Cuming Counties, Nebraska (see Figure 1). It would begin approximately 0.30 mile west of the US-275 and Nebraska Highway 57 (N-57) junction where the existing four-lane roadway ends. It would extend east and south to approximately the west end of Wisner, Nebraska, where it would tie into the existing US-275 four-lane roadway.

The improvements would expand the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway (called 2+2 construction by NDOT) on one side of the existing US-275. A Restoration, Rehabilitation, and Resurfacing (3R) strategy would also be applied to the existing two lanes, including drainage structure upgrades. In addition to mainline US-275 construction, the Project would improve US-275 intersections with Nebraska Highway 15 (N-15) at two locations east of N-57 (south toward Pilger and north along the Stanton-Cuming County line), the US-275 intersection with Nebraska Highway 51 (N-51) northwest of Wisner, and various county road intersections. The Project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices and would not require a detour. Using the 2+2 construction method would allow the existing lanes to remain open during construction of the new lanes and the new lanes to be used during work on the existing lanes.

2.2 Study Area Definition and Data Collection

The CIA considers effects on adjacent and nearby communities that may be direct or indirect. The Project Study Area for direct construction impacts is bounded by an approximately 275-foot-wide corridor off the edge of pavement on US-275 and an approximately 150-foot-wide corridor off the edge of pavement at county roads. The Study Area for this CIA was determined to be the Census Tracts that the Project intersects. This area includes Census Tract 9622, Block Group 1, and Census Tract 9621, Block Group 1, in Stanton County and Census Tract 9727, Block Group 1, in Cuming County. The CIA Study Area also includes two communities: the village of Pilger in Stanton County (wholly contained within Stanton County, Census Tract 9621, Block Group 1) and the city of Wisner in Cuming County (wholly contained within Cuming County, Census Tract 9727, Block Group 1).

Demographic data used for this CIA analysis included the 2020 US Census and the 2016–2020 American Community Survey (ACS) 5-year Narrative Profiles. Data for the state of Nebraska, Stanton and Cuming Counties, and the City of Norfolk were included for comparison. When available, data was analyzed at the Census block group level. When data was unavailable at the block group level, Narrative Profiles on community characteristics for the next larger census geography level (census tract) were utilized.

The census tract and block group geography for the CIA Study Area is included in Figure 1.

3. Community Profile

This CIA considers the populations in the CIA Study Area as well as community characteristics, including, housing, income, employment and industry, tax base, and community resources (public services and facilities), as discussed in the following sections.

3.1 Population

Population in the CIA Study Area experienced a decrease between 2010 and 2020, reflecting the population migration from rural to urban areas in Nebraska, and across the country. The population in Pilger and Census Tract 9621, Block Group 1, had the largest decreases— 32 percent and 14 percent, respectively. In comparison, populations in Stanton and Cuming Counties decreased by 1 to 5 percent. The Nebraska's population increased by 7 percent in that same time period. From 1970 to 2020, Cuming County, Pilger, and Wisner experienced a decrease in population of approximately 25, 49, and 6 percent, respectively. This is in contrast to an over 50 percent increase in population in Norfolk. Pilger experienced a larger population decrease than Stanton County as a whole. Between 2010 and 2020, Pilger experienced a nearly 27 percent higher rate of decrease, likely because of impacts from the twin tornadoes that hit the community in 2014. Populations in the CIA Study Area and demographics of those populations are summarized in Table 1.

Table 1. Population

Area	Population			Percent Population Change (± Population Change)			Average Age (Years)
	1970[a]	2010	2020	1970–2010	1970–2020	2010–2020	2020
Nebraska	1,483,493	1,826,341	1,961,504	23.1%	32.2%	7.4%	36.6
Stanton County	5,758	6,129	5,842	6.4%	1.5%	-4.7%	40.2
Cuming County	12,034	9,139	9,013	-24.1%	-25.1%	-1.4%	40.9

Area	Population			Percent Population Change (± Population Change)			Average Age (Years)
	1970[a]	2010	2020	1970–2010	1970–2020	2010–2020	2020
City of Norfolk	16,607	24,210	24,955	45.8%	50.3%	3.1%	35.6
Village of Pilger	470	352	240	-25.1%	-48.9%	-31.8%	46.7
City of Wisner	1,315	1,170	1,239	-11.0%	-5.8%	5.9%	33.1
Tract 9622, Block Group 1, Stanton County	-	1,471	1,490	-	-	1.3%	41.2
Tract 9621, Block Group 1, Stanton County	-	887	760	-	-	-14.3%	45.0
Tract 9727, Block Group 1, Cuming County	-	1,581	1,590	-	-	0.6%	35.2
CIA Study Area (Tract 9622, BG1, Tract 9621, BG1, Tract 9727, BG1)	–	3,939	3,840	-	-	–2.6%	40.5

Sources: US Census Bureau 1973, 2011, and 2020a, b, c, d, e, f, g.

[a] Block group data were not available in the 1970 census.

The average (median) age of the population in the CIA Study Area is 40.5 years (US Census Bureau 2020b). The average age in the CIA Study Area is higher than the average age for the state of Nebraska (36.6) and nearby city of Norfolk (35.6).

Environmental justice (EJ) populations are a group of people that meet the criteria for low-income or minority status under the NDOT methodology for identifying EJ populations that was developed in coordination with FHWA. This methodology evaluates population data from the Census to analyze whether the percentage of the minority or low-income population is “meaningfully greater” than a larger reference geography. As an example, this would usually mean the percentage of the minority group for a specific block group is compared to the same minority group for the county. The term “meaningfully greater” is usually 6–8 percent higher. A population can be identified as an EJ population if the meaningfully greater threshold is met for minority, income level, or both. NDOT's typical presence/absence analysis was completed for the project area and did not identify any environmental justice populations. The population in the CIA Study Area is primarily white, with small populations of other races spread across the CIA Study Area as shown in Table 2.

Table 2. Demographics

Geographic Area Name	Total	White (%)	Black / African American (%)	American Indian / Alaska Native (%)	Asian (%)	Native Hawaiian / Pacific Islander (%)	Hispanic / Latino (%)	Some Other Race (%)	Two or more Races (%)	Total Minority (%)
Block Group 1, Census Tract 9621, Stanton County, Nebraska	760	92.2	0.0	0.0	0.4	0.1	5.5	0.0	1.7	6.1
Block Group 1, Census Tract 9622, Stanton County, Nebraska	1,490	85.4	0.6	1.5	0.2	0.1	8.7	0.2	3.3	11.1
Block Group 1, Census Tract 9727, Cuming County, Nebraska	1,590	89.7	0.1	0.0	0.0	0.1	6.5	0.3	3.4	6.7
Wisner city, Nebraska	1,239	88.5	0.1	0.0	0.0	0.2	6.9	0.2	4.2	7.2
Cuming County, Nebraska	9,013	84.7	0.2	0.3	0.2	0.1	12.3	0.3	1.8	13.2
Stanton County, Nebraska	5,842	89.3	0.4	0.5	0.3	0.1	6.0	0.2	3.3	7.3
Nebraska	1,961,504	75.7	4.8	0.8	2.7	0.1	12.0	0.3	3.7	20.3

Source: US Census Bureau 2020h.

3.2 Housing

Households and Families

From 2016 to 2020, there were 3,406 households in Census Tract 9727, in Cuming County, and Census Tracts 9622 and 9621, in Stanton County, Nebraska (CIA Census Tracts). The average household size averages between 2.23 and 2.44 people, indicating homes with families present. This is consistent with the Nebraska average household size of 2.44, but it is lower that US average household size of 2.6 people.

When considering the makeup of these families, it is noted that married-couple or cohabitating households made up the majority of households. In the CIA Census Tracts, female householders with no spouse or partner present were 15.8–20.9 percent of all households, while 16.7–25.8 percent of households were male householders with no spouse or partner present. Based on the average household size in the area, it is likely that some of these female and male led households may also have children present. In CIA Census Tract households where grandparents lived with grandchildren under 18 years old, 50.0–76.2 percent of those grandparents were responsible for the basic needs of their grandchildren. This is considerably higher than the Nebraska average of 35.5 percent.

In 2016–2020, the median property value for Census Tract 9727, in Cuming County, and Census Tracts 9622 and 9621, in Stanton County, ranged from $125,600 to $141,700.

The housing inventory within Census Tract 9727, in Cuming County, and Census Tracts 9622 and 9621, in Stanton County, is included in Table 3. The majority of homes in the CIA Census Tracts are single family structures. Multi-family structures and mobile homes make up less than 10 percent of the available housing inventory.

Table 3. Households

Area	Number of Households	Average Household Size	Percent of Housing by Type			
			Single Family Structures	Multi-Family Structures	Mobile Homes	Boat, Van, RV, Etc.
Census Tract 9622, Stanton County, Nebraska	1818	2.44	85.9%	8.0%	6.1%	0.0%
Census Tract 9621, Stanton County, Nebraska	612	2.38	90.0%	2.3%	6.6%	1.1%
Census Tract 9727, Cuming County, Nebraska	1174	2.23	92.0%	4.8%	3.2%	0.0%

Sources: US Census Bureau 2020c, d, e, f, g.

Homeownership and Tenancy

Of owner-occupied households in the CIA Census Tracts, 42.4–67.1 percent owned their home “free and clear” of a mortgage or loan. This is above the Nebraska average of 40.6 percent and well above the national average of 37.9 percent. The median monthly housing costs for this group of owner-occupied housing units was $449–$478 per month. The balance of owner-occupied dwelling units (between 32.9 and 57.6 percent) had a mortgage on the home they occupied. The median monthly housing costs for this group ranged from $1,113 to $1, 248 per month.

For renter-occupied houses, the median gross rent in CIA Census Tracts ranged from $594 to $797. Gross rent includes the monthly contract rent and any monthly payments made for electricity, gas, water, sewer, and any other fuels to heat the house.

Households that pay 30 percent or more of their income on housing costs are considered cost-burdened. In 2016–2020, cost-burdened households in the CIA Census Tracts included 18.8–29.8 percent of owners with a mortgage, 7.0–8.5 percent of owners without a mortgage, and 23.8–30.8 percent of renters.

Tenancy within the area is reflective of an established, cohesive rural community. Of those surveyed, 89–97 percent had lived in their existing home for at least a year. Of those that had moved, most were relocating to homes within the same county.

3.3 Income and Employment

Income

The median income in Census Tract 9727, in Cuming County, and Census Tracts 9622 and 9621, in Stanton County, was approximately $64,723, which is consistent with the United States median household income of $64,994 and higher than the Nebraska median household income of $63,015. Between 2.5 and 6.5 percent of households had an income of less than $10,000 per year. Median earnings for year-round workers in these census tracts ranged between $62,000 and $67,803. Over 80 percent of households received earnings, while an estimated 30 percent of households received social security, and an estimated 15 percent of households received retirement income other than Social Security. Less than 5 percent of households received governmental safety net assistance in the form of Supplemental Security Income or Cash Public Assistance. The average Social Security income was $19,661. It should be noted that these income sources are not mutually exclusive, meaning that households may have multiple income sources.

Poverty Status

In Nebraska, 10.4 percent of people live below the poverty level, with 8.1 percent of households receiving Supplemental Nutrition Assistance Program (SNAP) benefits. In Census Tract 9727, Cuming County, and Census Tracts 9622 and 9621, Stanton County, these rates were considerably lower with less than 6 percent of people living below the poverty level and households receiving SNAP benefits ranging between 2.5 and 5.6 percent.

Table 4. Income

Area	Median Household Income	Income Sources				
		Earnings	Social Security	Retirement	Supplemental Security Income	Cash Public Assistance
Census Tract 9622, Stanton County, Nebraska	$64,167	80.0%	29.6%	15.6%	3.8%	1.5%
Census Tract 9621, Stanton County, Nebraska	$67,803	88.4%	32.8%	10.1%	1.6%	0.3%
Census Tract 9727, Cuming County, Nebraska	$62,000	84.0%	27.7%	10.8%	1.2%	0.3%
Nebraska	$63,015	81.0%	29.3%	17.4%	3.8%	1.9%

United States	$64,994	77.7%	31.4%	21.1%	5.2%	2.4%

Sources: US Census Bureau 2020c, d, e, f, g.

Employment Status and Type of Employer

Of the population 16 years of age and older in Census Tract 9727, Cuming County, and Census Tracts 9622 and 9621, Stanton County, 68–74 percent were employed with 24.7–29.8 percent not in the labor force currently. Of those in the labor market, the majority (approximately 71–80 percent) were private wage and salary workers; approximately 8–11 percent were government workers (local, state, or federal); and approximately 10–15 percent were self-employed. Leading industries for the employed civilian population in these three census tracts are agriculture, educational services, healthcare, social services, manufacturing, and retail trade.

Access to Employment

As shown in Table 5, most workers in the Project vicinity drove to work alone in 2016–2020, while 5.4–9.8 percent carpooled. Among those who commuted to work, it took them, on average, 16.3–23.0 minutes, indicating that most workers in the area use the highway system and commute outside of the area in which they reside. The local transportation network is shown in Figure 2.

Table 5. Percent of Workers 16 and over Commuting by Mode

Area	Percent by Mode						Average Time to Get to Work
	Car, truck, van – drove alone	Car, truck, van – carpooled	Public transportation (excluding taxicab)	Walked	Other means	Worked from home	
Census Tract 9622, Stanton County, Nebraska	85.9%	5.4%	0%	1.3%	0%	7.4%	19.9 Minutes
Census Tract 9621, Stanton County, Nebraska	76.9%	9.8%	0%	0.1%	0.9%	12.4%	23.0 Minutes
Census Tract 9727, Cuming County, Nebraska	82.8%	8.5%	0%	3.9%	0%	4.8%	16.3 Minutes

Sources: US Census Bureau 2020c, d, e, f, g.

3.4 Tax Base

The tax base within Stanton and Cuming Counties are detailed in Table 6. The predominant land type is agricultural, accounting for over half the assessed value in each county. A total of 256,368 acres of agricultural land was assessed at an average value of $6,200 per acre in Stanton County, and a total of 340,895 acres of agricultural land was assessed at an average value of $8,000 per acre in Cuming County (Nebraska Department of Revenue 2022).

Table 6. Tax Base

	Total Assessed Value	Agricultural Land Assessed Value (acres) (%)	Residential Land Assessed Value (acres) (%)	Commercial and Industrial Assessed Value (acres) (%)	Other Property Assessed Value (acres) (%)
Stanton County	1,596,750,732	984,681,725 (58.3)	352,937,935 (24.9)	50,399,000 (3.7)	208,732,072 (9.3)
Cuming County	2,730,816,899	1,88,917,160 (66.5)	488,324,020 (20.0)	110,172,235 (4.8)	125,154,099 (4.6)

Source: Nebraska Department of Revenue 2022

3.5 Community Resources and Cohesion

Community resources are shown in Figure 3.

Physical Environment

Land use in the CIA Study Area is typical of rural, irrigated agricultural land use and includes the Elkhorn River floodplain and rural residences, farmsteads, and modern livestock production facilities. There are three communities along US-275 that would be influenced by the Project. The first community, Norfolk, in Madison County, is approximately 9 miles west of the US 275 and N-57 junction. The second community, Pilger, is approximately 0.5 mile south of US-275 at N-15's west junction. The third community, Wisner, is at the east end of the Project. Those living and working directly in the CIA Study Area rely on these communities for sustainability and social support services like schools, medical care, goods, and social institutions. Tenancy rates for occupied dwelling units for the area are high. The median number of years that a current householder has been in their current home is 15 to 16 years, indicating that the rural population in the CIA Study Area tends to be well-established. In comparison, the number of years residents in Norfolk, Pilger, and Wisner, and in Nebraska as a whole, have been in their current home ranges from 9 to 13 years. Residents in the CIA Study Area and surrounding cities both live in owner-occupied units for longer periods of time than rental units (U.S. Census Bureau 2018c). Length of tenancy in the area, low crime rates, access to employment, and access to nearby quality of life services indicate a cohesive, established rural area.

Schools

There are two school systems in the CIA Study Area: Stanton Community Schools and Wisner-Pilger Public Schools. Stanton Community Schools in Stanton serves central and north-central Stanton County. Wisner-Pilger Public Schools in Wisner serves northeast Stanton County and northwest Cuming County (Erickson 2019). Both school systems consist of an elementary school and a junior/senior high school, and both provide public school buses to transport students within the CIA Study Area (Stanton Community Schools 2023; Wisner-Pilger Public Schools 2023).

Emergency and Medical Services

Emergency services in the CIA Study Area include fire, police, and medical services. Stanton County emergency services in the CIA Study Area are dispatched from the Norfolk 911 Communication Center in Norfolk (City of Norfolk 2023). Emergency services in Cuming County, including the Cuming County Sheriff's office outside of business hours, are dispatched through an E-911 service located in West Point, Nebraska (City of Wisner 2023a; Cuming County 2021).

Two volunteer fire departments serve the CIA Study Area. The Pilger Volunteer Fire Department is located at 150 West First Street (approximately one block west of Main Street) in Pilger (Village of Pilger 2019). The Wisner Volunteer Fire Department is located on Avenue D in Wisner and serves

approximately 151.5 square miles (City of Wisner 2023a). In the event of multiple emergencies, the Wisner Volunteer Fire Department has mutual aid agreements with the nearby communities of Bancroft, Beemer, Pilger, and West Point.

Police services in the CIA Study Area are provided at the local, county, and state levels. Local service is provided to the city of Wisner by the Wisner Police Department located on US-275 at 11th Street. County services are provided by the Stanton and Cuming County Sheriffs. The Stanton County Sheriff is headquartered in Stanton. The Cuming County Sheriff is headquartered in West Point. State police services are provided by the Nebraska Highway Patrol, Troop B, headquartered in Norfolk (Nebraska State Patrol 2023).

Medical services in the CIA Study Area consist of two clinics in Wisner—Wisner Family Practice / St. Francis Rehabilitation (2100 21st Circle, Wisner) and Wisner Family Medicine (1101 9th Street, Wisner)—as well as the Elkhorn Logan Valley Public Health Department (2104 21st Circle, Wisner). Emergency medical services are not located in the CIA Study Area and are provided by four hospitals in the surrounding communities:

- Pender Community Hospital located 20 miles northwest of Wisner in Pender, Nebraska.
- St. Francis Memorial Hospital located 15 miles away in West Point.
- Faith Regional Health Services located 12 miles west of N-57 in Norfolk.
- Providence Medical Center located 15 miles north of Pilger in Wayne, Nebraska.

Vulnerable Population Services

Two senior centers are located in or near the CIA Study Area: Stanton Health Center at 301 17th Street in Stanton and Wisner Community Senior Center at 1006 Avenue E in Wisner. Both centers provide services to senior citizens, including on-site meals and home-delivered meals (Nebraska Resource and Referral System 2023a, 2023b). Additionally, the Wisner Care Center at 1105 9th Street in Wisner provides assisted living care.

Special Events

Two local special events are held in the CIA Study Area. The first is the Thunder by the River Truck and Tractor Pull located at River Park in Wisner. The event is a truck and tractor pull that occurs annually during the third week of August. The event has been hosted in Wisner since 2005 (City of Wisner 2023b; Thunder by the River 2023). The second event is the Lions Club Rodeo and Junior Livestock Show at River Park in Wisner. This event occurs in late June or early July and includes rodeos, poker runs, eating competitions, and livestock showings (City of Wisner 2023b).

Utilities

Most households in the CIA Study Area Census Tracts use both gas and electricity to heat their homes. Gas is noted as being both delivered and stored at the residence for use and supplied via utility line. Electricity is provided by both the Cuming County Public Power District, Wisner Electric, and Stanton County Public Power. Water is also available in limited areas via rural water districts, with many homes using wells. Most households within the Census Tracts surrounding the CIA Study Area have a computer and a broadband internet subscription. However, there are 10–20 percent of households that do not have a computer. These details are included in Table 7.

Table 7. Percentage of Household with a Computer and Internet.

Area	Percent of Households with Computer by Type			Percent of Households with Internet by Type			
	Desktop or Laptop	Smartphone	Tablet	Cellular Data Plan	Broadband (cable, fiber, or DSL)	Satellite	Dial-up
Census Tract 9622, Stanton County, Nebraska	80.4%	70.6%	55.5%	68.4%	58.2%	10.7%	0.2%
Census Tract 9621, Stanton County, Nebraska	75.2%	68.1%	53.3%	60.1%	45.1%	18.6%	0.7%
Census Tract 9727, Cuming County, Nebraska	81.0%	78.4%	56.3%	63.4%	52.1%	11.7%	1.8%

Sources: US Census Bureau 2020c, d, e, f, g.

4. Community Impacts

The Project's potential impacts on the community are discussed in the following bullet points. The impacts are evaluated based on their intensity (negligible, minor, moderate, or major), duration (short- or long-term), and type (adverse or beneficial).

- The Project would have minor, short- and long-term, beneficial impacts on the populations in and near the CIA Study Area. Over the last 50 years, the rural communities in the CIA Study Area have seen decreases in population while the larger communities, such as Norfolk, have seen increases in population. This trend is consistent with rural communities nationwide (Economic Research Service 2022). In the long-term, the Project would impact populations in the CIA Study Area and surrounding communities beneficially by creating a more efficient roadway and reduced travel times. In the short-term, these populations will be impacted by construction, but most of the impacts that would normally accompany a widening project are mitigated by NDOT's innovative 2+2 construction technique as discussed in Section 2.1.
- No minority or low-income populations were identified in the Block Groups immediately adjacent to the CIA Study Area based on NDOT's environmental justice methodology developed in coordination with FHWA. However, minority populations (primarily Hispanic) were identified near the CIA Study Area in Norfolk and Pilger. No LEP populations were noted at or above the NDOT threshold of 5 percent or 1,000 people. There are no anticipated disproportionately high and adverse human health or environmental effects on minority or low-income populations. No translations or specialized LEP outreach are required for this Project because none of the CIA Study Area data indicates the presence of an LEP population that reaches the NDOT LEP outreach thresholds.
- The Project would have minor, short-term, adverse impacts on the transportation network. Construction would be completed under traffic, allowing continuous movement through the CIA Study Area. Access to adjacent properties would be maintained during construction but may be limited at times due to phasing requirements. County roads, as shown in Figure 2, may

require temporary closure for construction activities; adverse out-of-direction travel would be approximately 1 to 5 miles.

- The Project would have major, long-term, beneficial impacts on the transportation network in the CIA Study Area and in northeast Nebraska. The approximately 16 miles that the Project would improve represent more than half of the remaining 27 miles to complete the US-275 Expressway System, which was identified in the 1988 Nebraska Highway Needs Study. In the CIA Study Area, the Project would provide a direct four-lane connection between Norfolk, N-57, N-15, N-51, and Wisner. Additionally, widening US-275 from N-57 to Wisner is expected to decrease annual vehicle delay by 95,700 vehicle hours in 2030, increasing to a reduction of 191,500 vehicle hours in 2045 (HDR 2021). The decrease in vehicle delay would increase roadway efficiency and reliability.
- Right-of-way (ROW) required for the project involves strip acquisition. No residences would be acquired for US-275 expansion. Minor, long-term, adverse impacts would result from the acquisition of land from adjacent landowners and potential relocation of two structures. Acquisitions from rural farmsteads and the Wisner-Pilger Public Schools would be minor. The two structures that may be acquired include a grain bin and a metal outbuilding used for farm equipment storage. Twelve center pivots related to irrigation systems would be shortened or relocated. As design progresses, impacts on adjacent properties would be minimized or eliminated to the extent practicable. ROW acquisition and relocations would be conducted in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 United States Code 4601 et seq.), Title VI of the Civil Rights Act of 1964, and the Nebraska Relocation Assistance Act (Nebraska Revised Statutes Section 76-1214 et seq.).
- Short-term, beneficial income impacts would include an increase in construction-related jobs and increased business from construction workers patronizing local businesses and service establishments. The projected long-term increase in employment, discussed below, would generate additional spending in communities, stimulating business growth and local housing markets. Housing inventory exists in the surrounding communities to accommodate an increase in temporary workers.
- Long-term, beneficial economic impacts would result from expanding US-275 to a four-lane facility; expansion would increase connectivity in the CIA Study Area for local commuting traffic and would provide more efficient movement of local products to larger markets. The Project would also decrease travel times and improve roadway reliability. The Project would have moderate, long-term, beneficial impacts on industry in the region. The commuting times shown in Table 5 indicate that working adults, especially in Pilger, are travelling outside of the CIA Study Area for work. Manufacturing and retail are also important industries in the region and rely on movement of goods for sale throughout Nebraska and the United States. Metal manufacturing and farm output per highway mile along US-275 in the counties adjacent to (Madison) and within the CIA Study Area (Stanton and Cuming) are higher than in any other Nebraska location (Goss and Associates 2015). Currently, the movement of steel and other manufactured goods produced in Norfolk and nearby communities and agricultural products, including the cattle produced in feedlots along US-275, are impeded by traffic delays. With the existing density of manufacturing jobs, especially in Norfolk, and agricultural industries in the area between Norfolk and Wisner, construction of the 16-mile segment from Norfolk to Wisner and improved travel times would provide an unknown increase in economic benefit to the region.
- Public Input was received during a stakeholder meeting and a public meeting in September 2019. Several comments received were concerns about the economic impact of a bypass

around Wisner. A Wisner bypass is not being considered for the Project, and as a result, the Project would not have negative, long-term economic impacts on the residents and businesses in Wisner.

- **Minor, short-term, adverse impacts would result on the tax base in and near the CIA Study Area as property parcels are acquired for US-275 expansion.** The Preferred Alternative would potentially require acquisition of approximately 327 acres from approximately 90 parcels outside of existing ROW in Stanton and Cuming Counties. In Stanton County, approximately 211 acres from approximately 57 parcels could be acquired, 99 percent of which is agricultural land. In Cuming County, approximately 108 acres from approximately 33 parcels could be acquired, 95 percent of which is agricultural land. These acquisitions represent less than 10 percent of the respective parcels and 1 percent of the total assessed value in these counties. As design progresses, impacts on adjacent properties in both Stanton and Cuming Counties would be minimized or eliminated, to the extent practicable. Expansion of existing industries (primarily metal and agricultural industries) is anticipated along an expanded US-275 (Goss and Associates 2015). Increased development along US-275 and in adjacent communities would increase the tax base in the State of Nebraska, both Stanton and Cuming Counties, and in local communities such as Pilger and Wisner.
- **Access to community resources, area schools, police, and fire services would not be affected by US-275 expansion** because improvements would be constructed under traffic. Any required detours for county roads would have limited effect and duration. **Access to businesses, community resources, and residences would be maintained**. Senior centers would not be affected by US-275 expansion. **Utility services disruptions are not anticipated due to the project.** Local events are expected to incur minor, short-term, adverse impacts during construction and moderate, long-term, beneficial impacts due to the Project. **Cohesion between communities, such as Norfolk, Pilger, and Wisner, and quality of life for residents would benefit from the moderate, long-term impacts** that would include those previously described, such as a more efficient and reliable roadway.

5. Conclusions

Short-term, adverse community impacts, such as county road detours and temporary access restrictions, would occur throughout construction but would be mitigated through NDOT standard specifications and adherence to federal, state, and local laws and regulations. The Project would have long-term, beneficial impacts on the people and communities in and near the CIA Study Area and in the State of Nebraska. Widening US-275 would decrease travel times and provide a more efficient roadway for commercial and passenger traffic. Additional benefits may include increased economic activity, including employment and income, and an expanded tax base. An expanded US-275 would be a strong recruiting tool for business and economic development.

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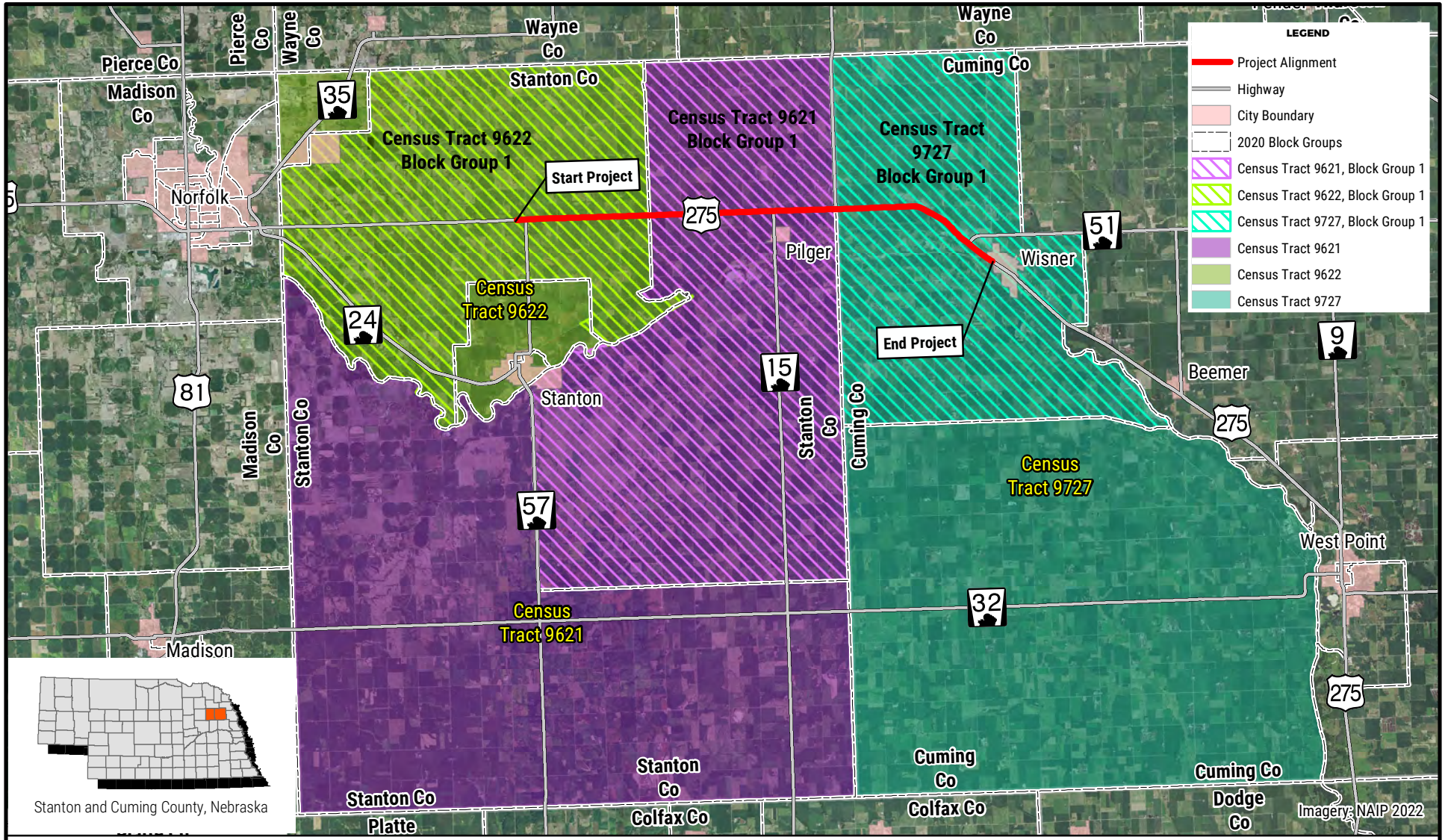
Appendix A
Figures



NEBRASKA
DEPARTMENT OF TRANSPORTATION

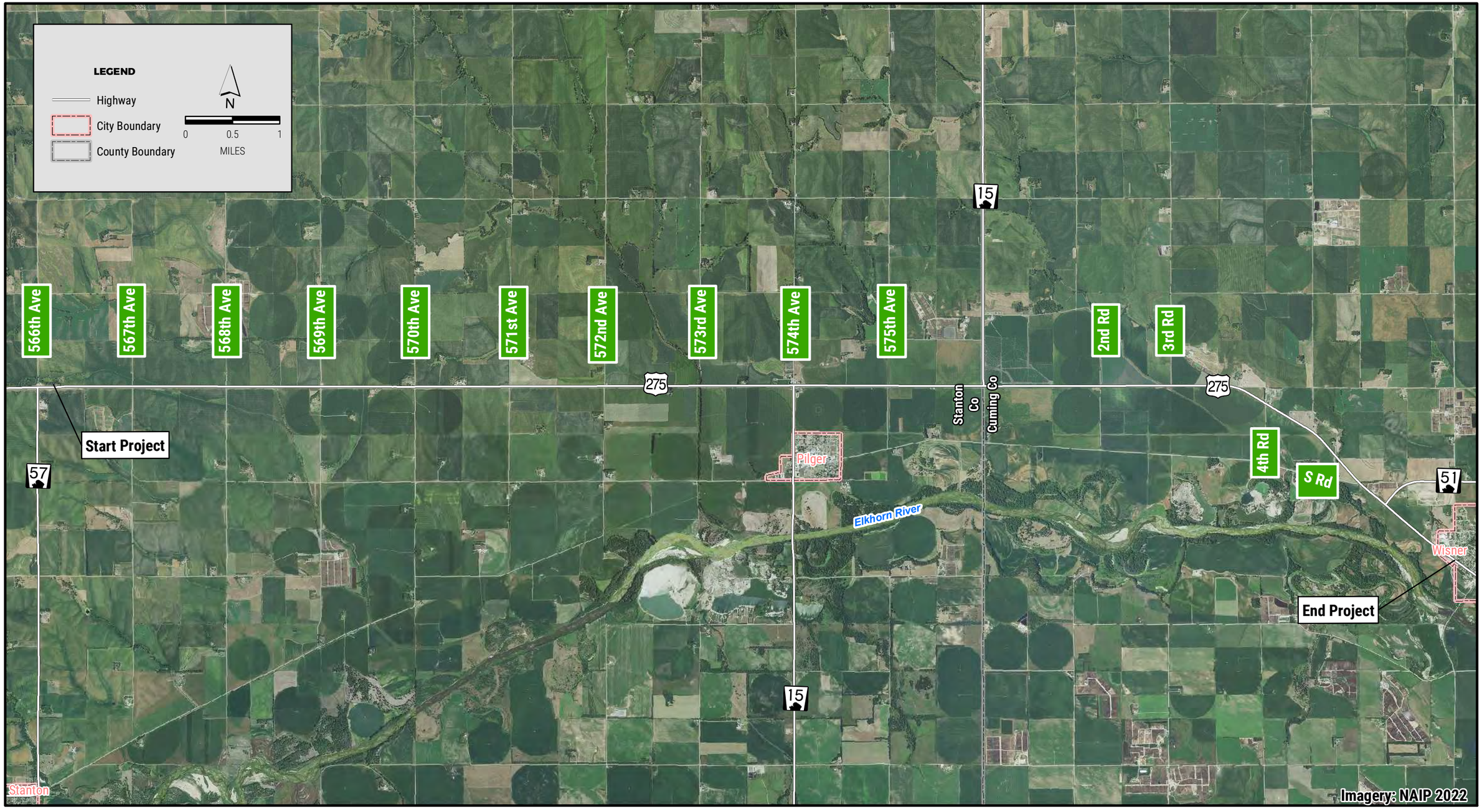
PROJECT LOCATION

NORFOLK - WISNER
PROJECT NO.: S-275-6(1052)
CONTROL NO.: 32319

DATE: 2/20/2023

FIGURE 1

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_05_COMMUNITY_IMPACT_ASSESSMENT\MAP_8X11_CIA_FIG_1_REVISED.MXD - USER: CMODRCIN - DATE: 2/20/2023



NEBRASKA
DEPARTMENT OF TRANSPORTATION

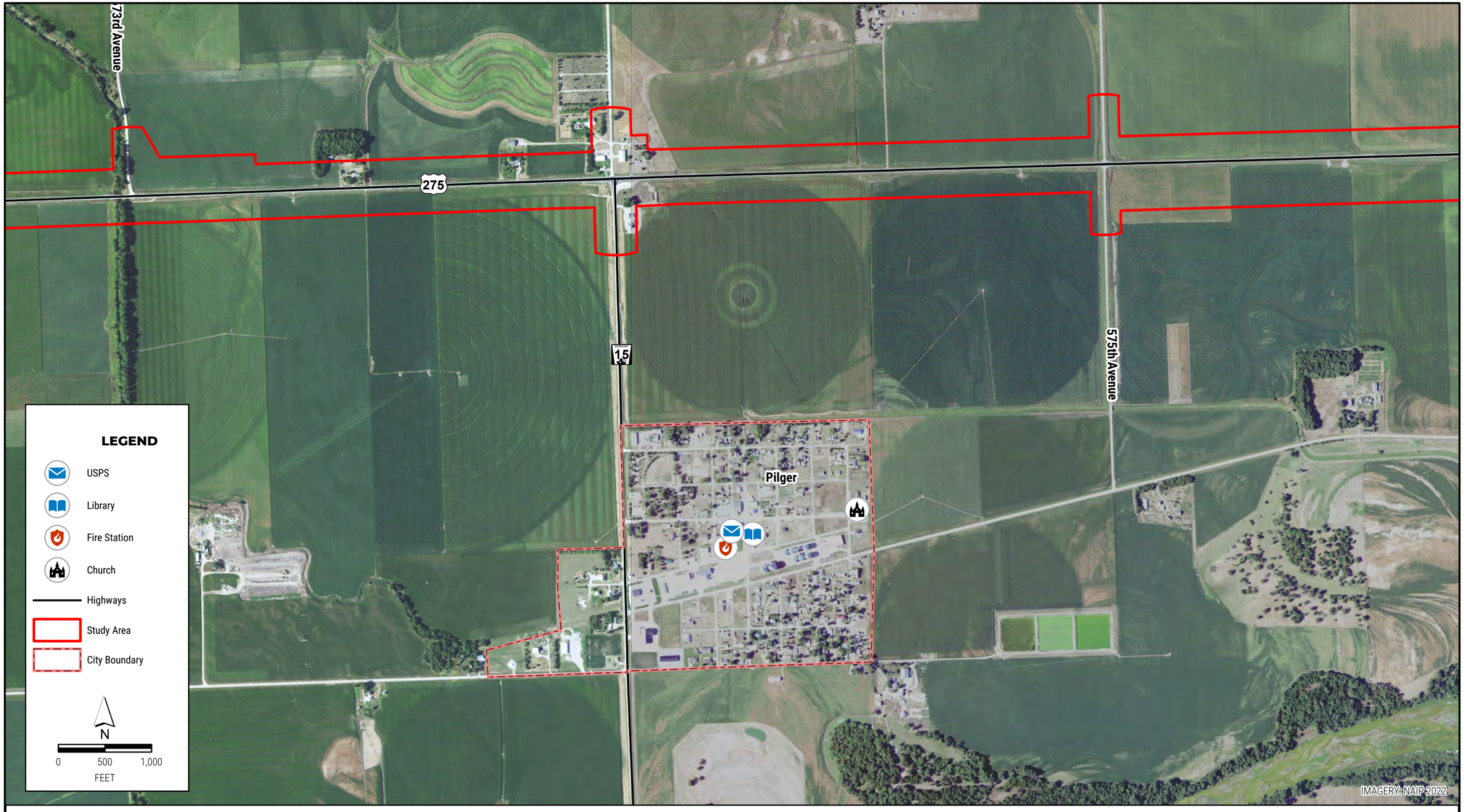
LOCAL TRANSPORTATION NETWORK

NORFOLK - WISNER
PROJECT NO.: S-275-6 (1052)
CONTROL NO.: 32319

Date: 10/31/2023

FIGURE 2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_05_COMMUNITY_IMPACT_ASSESSMENT\MAP_11X17_LOCAL_TRANSPORTATION_NETWORK.MXD - USER: SMCKINLEY - DATE: 10/31/2023



NEBRASKA
DEPARTMENT OF TRANSPORTATION

COMMUNITY RESOURCES - PILGER

NORFOLK - WISNER
PROJECT NO.: S-275-6(1052)
CONTROL NO.: 32319

DATE: 10/31/2023

FIGURE 3 SHEET 1 OF 2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_05_COMMUNITY_IMPACT_ASSESSMENT\32319_NORFOLK_WISNER_COMMUNITY.APRX - USER: CMODRCIN - DATE: 10/31/2023



NEBRASKA
DEPARTMENT OF TRANSPORTATION

COMMUNITY IMPACT ASSESSMENT - WISNER

NORFOLK - WISNER
PROJECT NO.: S-275-6(1052)
CONTROL NO.: 32319

DATE: 10/31/2023

FIGURE 3 SHEET 2 OF 2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_05_COMMUNITY_IMPACT_ASSESSMENT\32319_NORFOLK_WISNER_COMMUNITY.APRX - USER: CMODRCIN - DATE: 10/31/2023

Appendix F

Historic Properties

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Section 106 Tier III PQS Memo
Adverse Effect
Project is an EA and is not Assigned under 326 NEPA Assignment

Control No:	32319	**Project No:**	275-6(1052)	**Project Name:**	Norfolk - Wisner
Date of Project Description:			12/22/2022	**Project Location:**	Stanton and Cuming Counties

NDOT PQS Project Effects Determination:	*adverse effect*		
SHPO Concurrence:	re: Project Effects Determination	**Date:**	06/22/2023
SHPO Concurrence:	re: NR Eligibility	**Date:**	02/26/2020
NDOT PQS Signature:	Stacy Stupka	**Date:**	08/18/2023

ACHP notification of the adverse effect: FWHA notified ACHP of the adverse effect and invited their participation in consultation on 08/09/2023. ACHP declined to participate in consultation on 08/16/2023.

Consulting Party Information

Invitation to consult under Section 106 and invitation to stakeholder meeting:

Sent 08/13/2019

City of Wisner, Cuming County Historical Society, Historical Society of Stanton County Nebraska, Stanton County Museum – Pilger Location, Village of Pilger, Wisner Heritage Museum, History Nebraska (Deputy SHPO and SHPO Archeologist)

Sent 08/15/2019

Iowa Tribe of KA and NE, Omaha Tribe of NE (THPO and Chairman), Otoe-Missouria Tribe of Indians OK, Pawnee Nation of OK, Ponca Tribe of NE, Ponca Tribe of OK (THPO and Chair), Santee Sioux Nation (THPO and Chairman), Winnebago Tribe of NE, Bobalu Investments property owner, Elkhorn Valley Horizons Inc property owner, JD and Debra Alexander property owner, Raymond and Kathleen Johnson property owner

Responses:

With the exception noted below, all no response

Pawnee Nation, 09/16/2019: “does not appear to adversely affect the cultural landscape of the Pawnee Nation”

Invitation to comment upon project effects determination

Sent 06/20/2023

Arapaho Tribe of the Wind River Reservation, WY Arapaho Tribe of the Wind River Reservation, WY Cheyenne and Arapaho Tribes, OK (THPO and Chairman), Cheyenne River Sioux Tribe of the Cheyenne River Reservation SD (THPO and Chairperson), Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation MT (THPO and Chairman), Oglala Sioux Tribe (THPO and President), Omaha Tribe of NE (THPO and CTO), Otoe-Missouria Tribe of Indians OK (THPO and Chairman), Pawnee Nation of OK (THPO and President), Ponca Tribe of NE (Chairwoman, Cultural Director & THPO), Ponca Tribe of OK (THPO and Chairman), Rosebud Sioux Tribe of the Rosebud Indian Reservation SD (THPO and President), Santee Sioux Nation (Interim THPO and Chairman), Three Affiliated Tribes of the Fort Berthold Reservation ND (THPO, Chairman, Consultant), Yankton Sioux Tribe of SD (THPO and Chairman), City of Wisner, Village of Pilger, Cuming County Historical Society, Historical Society of Stanton County Nebraska, Stanton County Museum – Pilger Location, Wisner Heritage Museum, Bobalu Investments property owner, Elkhorn Valley Horizons Inc property owner.

Responses:

With the exceptions noted below, 30 day comment period expired without receiving a response.

Pawnee Nation, 07/20/2023: “does not appear to adversely affect the cultural landscape of the Pawnee Nation”

City of Wisner, 06/28/2023: “we know of no known historical sites at this time”

Public Input

Consulting parties invited to participate in consultation regarding this undertaking include the property owners of two identified historic properties, the City of Wisner, Cuming County Historical Society, Historical Society of Stanton County, Stanton County Museum (Pilger location), Village of Pilger, Wisner Heritage Museum, the Ponca Tribe of Nebraska, the Ponca Tribe of Oklahoma, Otoe-Missouria Tribe, the Omaha Tribe of Nebraska, Pawnee Nation of Oklahoma, Santee Sioux Nation, and the Winnebago Tribe of Nebraska.

FHWA and NDOT hosted a stakeholder meeting in Wisner on August 27, 2019 and the then identified consulting parties were invited to attend. NDOT Professional Qualified Staff (PQS) Stacy Stupka provided a brief overview of potential historic properties along the proposed alignment during this meeting; no concerns regarding historic properties were voiced during this meeting. A public information meeting regarding this project was held in Wisner on September 10, 2019 and again, consulting parties were invited to attend. Stupka was in attendance and provided information to the public regarding the historic properties identified. No concerns regarding historic properties have been received to date.

To date, only the Pawnee Tribe of Oklahoma has provided comments in response to invitations the stakeholder and public meetings. On September 16, 2019, Matt Reed, the Tribal Historic Preservation Officer (THPO) for the Pawnee Nation of Oklahoma responded on behalf of the Tribe indicating that the "proposed project does not appear to adversely affect the cultural landscape of the Pawnee Nation" and indicated that the project may proceed as planned. Mr. Reed did indicate that if undiscovered properties are encountered, that consultation with his office be re-initiated.

Under Nebraska's new statewide Section 106 Programmatic Agreement (February 2023), several additional tribes have been identified as consulting parties. These tribes include Arapaho Tribe of the Wind River Reservation, Wyoming; Cheyenne and Arapaho Tribes, Oklahoma, Cheyenne River Sioux Tribe, South Dakota; Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana; Oglala Sioux Tribe, Rosebud Sioux Tribe of the Rosebud Sioux Indian Reservation, South Dakota, Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota and the Yankton Sioux Tribe of South Dakota. FHWA invited these tribes to participate as consulting parties on June 20, 2023. On July 20, 2023, Matt Reed, the Tribal Historic Preservation Officer (THPO) for the Pawnee Nation of Oklahoma responded on behalf of the Tribe indicating that the "proposed project does not appear to adversely affect the cultural landscape of the Pawnee Nation" and indicated that the project may proceed as planned. Mr. Reed did indicate that if undiscovered properties are encountered, that consultation with his office be re-initiated. On June 28, 2023, the City of Wisner responded that they are not aware of any historical sites.

Area of Potential Effects (APE)

The area of potential effect (APE) for Section 106 purposes is defined at 36 CFR 800.16(d) as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. Both the archeological APE and the architectural/structural APE was defined by professionally qualified staff (PQS) at the Nebraska Highway Cultural Resources Program in consultation with NDOT PQS Stacy Stupka.

The APE includes all activities needed to construct two additional lanes on either side of the existing highway and to improve tie-ins with N-15, N-51, and various county roads. Generally, the archeological APE extends approximately 300 feet from the existing centerline of US-275. At county roads, the APE extends approximately 800 feet north and south from the existing US-275 centerline while extending approximately 150 feet east and west from the existing county road centerline (Enclosures 2 and 3). The APE widens out to include an unnamed road and County Road 'S Road' approximately .75 miles northwest of the intersection of US-275 and N-51. In this area, the APE extends approximately 160 feet west of the unnamed road and 160 feet south of County Road 'S Road', please see Enclosure 3. The vertical APE is generally up to 5 feet deep for most of the Project but does extend to 15 feet at bridges and culverts. The vertical APE does consider areas identified as "cut" sections by HDR engineering in October 2019.

The architectural/structural APE extends 500 feet beyond the current Right of Way (ROW) on either side of the proposed project and 500 feet beyond the beginning and ending points of the project. Within the City of Wisner, the APE extends to the alley east of 16th Street and considers 25 feet beyond existing ROW. This APE considers potential direct effects as well as indirect or cumulative effects.

Expanded APE, 2023
NDOT determined that proposed construction activities associated with realignment of County Road 573 were outside the archeological APE previously considered. Therefore, the archeological APE was expanded to encompass those activities.

The architectural/structural APE previously considered remains appropriate and was not expanded.

APE considered is consistent with 36 CFR 800.16(d) – (Y/N): Y

Summary of Archeological Investigations

History Nebraska (HN) Highway Archeologist Nolan Johnson, along with other History Nebraska personnel and volunteers, conducted archeological evaluations on the project between Fall 2016 and Summer 2019. A review of the History Nebraska Cultural Resources Geographic Information System (NCRGIS) archeological resources database and historic maps indicated that there are two previously identified archeological sites, 25ST15 and 25ST16, located within the APE (Enclosure 3). Following an archeological reconnaissance of the entire APE, Johnson and his crew completed intensive archeological investigations of 40 survey areas. The survey areas were selected based upon topography and Johnson's professional knowledge of the area and were investigated by pedestrian survey using 10 – 20 meter survey

This undertaking has been reviewed under the programmatic agreement entitled Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Transportation to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska (February 2023), as amended, and meets the requirements to be considered a Tier III Project.

transects. As a result of these investigations, four new archeological sites, 25ST48, 25ST49, 25ST50 and 25ST51, were identified. A discussion of these archeological sites follows below.

25ST15
A prehistoric site originally recorded in 1991, this site has since been destroyed by land leveling activities unrelated to this undertaking. Johnson completed several intensive pedestrian surveys within the recorded site boundary and surrounding area. Investigators found one stone flake some distance to the east of the recorded site. No evidence of features was identified and the soil at the ground surface is now yellow subsoil. The single flake is an isolated find and is out of context. The site has lost all integrity and is not recommended eligible for listing in the National Register of Historic Places (NRHP).

25ST16, Sharpe Homestead site
This previously recorded archeological site is a homestead site settled by the Sharpe family in the mid-1860s. Homestead documents indicate that Charles Sharpe submitted a homestead application on November 21, 1865, and began occupying this site in March of 1866. It is considered to be the first homestead in Stanton County. This site was investigated by HN archeologists for an unrelated project in 2012. At this time, archeologists noted scatters of Euro-American artifacts and several visible depressions consistent with that of a former farmstead (Bozell, et al.). The farmstead was occupied into the 1980's.

During the investigations completed by Johnson, a large scatter of Euro-American artifacts, including considerable amounts of building debris, were observed on the ground surface. Johnson noted that though a larger portion of the site has now been plowed, four depressions remain visible. To gather more information regarding subsurface features at this site, HN contracted with the Midwest Archeological Center, National Park Service who investigated this site using various non-invasive geophysical instruments (Enclosure 4). Completed in June 2019, these geophysical investigations revealed numerous anomalies associated with non-extant structures, as well as utility trenches and possible fence lines.

This site retains a high degree of physical integrity and due to its early date and local significance as the first homestead in Stanton County it is recommended eligible for listing in the NRHP under Criterion D. This site is likely to yield information important to our past that is not available through archival resources.

25ST48, 25ST49, 25ST50 and 25ST51
These four archeological sites are Euro-American scatters of artifacts consisting of ceramics, glassware, and metal fragments. Associated with non-extant farmsteads dating from late 19th to mid-20th centuries, these sites are not recommended eligible for inclusion in the NRHP because they lack physical integrity and lack of information potential that could contribute to our knowledge and understanding of history beyond that already available from archival records.

There is one significant archeological property, the Sharpe Homestead site (25ST16) in the APE.

Geomorphological Investigations
In collaboration with NDOT, History Nebraska Highway Archeologists have facilitated plans to complete geomorphological investigations to assess the potential for deeply buried archeological sites within the project corridor (Enclosure 5). Unfortunately, property owners have not granted access to complete these investigations. These investigations will be completed after Right of Way has been acquired.

Expanded APE, Archeological Investigations - 2023
No architectural/structural historic properties are located within the expanded APE.

Review of the Nebraska State Historical Society Cultural Resources Geographic Information System (NCRGIS) archeological resources database and historic maps indicated that there are no previously recorded archeological sites located within the expanded APE or in the immediate vicinity of the expanded APE.

Highway Archeologist Nolan Johnson completed intensive pedestrian survey of the expanded APE on May 24, 2023 using transects spaced at 20 meters apart, walking in a zig zag pattern along the transect. The expanded APE is planted in corn, and ground surface visibility ranged between 25 to 50%. No archeological sites were identified, and Johnson notes that the expanded APE has been previously disturbed by activities unrelated to this proposed transportation project, including straightening of Humbug Creek and extensive agricultural modifications.

There are no archeological historic properties within the 2023 expanded APE.

There is one archeological historic property within the APE, 25ST16, the Sharpe Homestead site.

Summary of Architectural / Structural Investigations

This undertaking has been reviewed under the programmatic agreement entitled Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Transportation to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska (February 2023), as amended, and meets the requirements to be considered a Tier III Project.

This project was investigated by History Nebraska Preservation Associate Megan Hilger using the Nebraska State Historic Preservation Office (SHPO) inventory and site files, *Nebraska Historic Building Survey Reconnaissance Survey Final Report of Stanton County, Nebraska* (1988), *Cuming County Nebraska Historic Building Survey* (2000), the Stanton and Cuming County Tax Assessor records, historic maps, and other primary and secondary sources. Background research indicates there were three properties within the APE that have been previously recommended eligible for listing in the NRHP, ST00-004, ST00-018 and ST00-028.

Hilger identified and evaluated all properties identified as meeting the SHPO Historic Resources Survey Manual criteria for survey and guidelines set forth in the 1991 National Park Service Bulletin 15: *How to Apply the National Register Criteria for Evaluation* (NPS Bulletin 15). These criteria include, but are not limited to, properties that are 40 years old or older; and are in their original location; and which possess sufficient physical integrity to convey NRHP significance. All surveyed properties were evaluated to determine NRHP eligibility.

The investigation resulted in the identification and NRHP evaluation of 52 properties within the APE. Of these properties, 51 properties are not recommended eligible for listing in the NRHP due to a lack of integrity and/or a lack of NRHP significance. Included within these 51 properties are five previously surveyed properties that are now non-extant, ST00-004, ST00-018, ST00-027, ST00-028 and ST00-121. One property, the Pilger Rest Area (Map ID 19) is recommended eligible for listing in the NRHP (Enclosure 6).

The bridges within the APE, S27508860, S27509309, S27509504, S27509508, S27509561, S27509644, S27509803, and S27510009 are not identified as eligible structures in the Nebraska inventories of bridges before 1947 or of those from 1947 to 1965. These inventories were a joint effort between the Nebraska Department of Roads and the Nebraska State Historic Preservation Office and evaluated the NRHP eligibility of all bridges in the state. These bridges are not listed in the inventories as eligible for inclusion on the NRHP because they do not possess the necessary engineering/design significance to be considered eligible. These bridges are also not on the list of structures excluded from the November 2012 Advisory Council on Historic Preservation Program Comment issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges.

Pilger Rest Area (Map ID 19)
This former NDOT rest area is located approximately three miles west of Pilger on the north side of US-275 (Enclosure 7). Constructed in 1969, the rest area features a mid-century one-story red brick building with a flat concrete roof, wide brick columns and glass block windows centered among curvilinear concrete walkways. Open air picnic shelters line the curvilinear walkways, echoing the main building with flat concrete roofs, brick walls, concrete table and benches, concrete floor, and stationary charcoal grill. The site also features a curvilinear drive, a parking lot and a windbreak.

Using funding obtained under the Highway Beautification Act of 1965, this rest area is one of four rest areas that NDOT constructed which were located away from the Interstate 80 system (Lincoln Journal Star, June 05, 1969). Commonly associated with Lady Bird Johnson, the Highway Beautification Act encouraged clean up and beautification of the nation's highways. NDOT owned and operated the Pilger Rest Area until the mid-2000s. It is now in private ownership.

The Pilger Rest Area is recommended NRHP eligible at the local level under Criterion A for a significant association with Transportation and under Criterion C for Architecture and Landscape Design. This property retains all aspects of physical integrity. The boundary of this historic property encompasses 10.21 acres and corresponds to the parcel historically associated with the property, described as Section 30 Township 24N Range 3E PT SW & PT SW SE 30-24-3 Pilger Precinct. For the purposes of this undertaking, the building, picnic structures, drive, parking lot, walkways and the northern windbreak are contributing elements to the property, as they are a cohesive design. The wooden windmill and split wood fence running the length of the property line are recommended as non-contributing elements to the property.

Expanded APE, Architectural Investigations - 2023
No architectural/structural historic properties are located within the expanded APE.

There is one architectural historic property within the APE, the Pilger Rest Area.

Historic Properties Identified Within APE:

Archeological Site	ROW Needed? (Specify Type & Amount)	Architectural Property	ROW Needed? (Specify Type & Amount)
25ST16, Sharpe Homestead Site	ROW needed, unknown amount and type; archeological site will be adversely affected	Former Pilger Rest Area	none

This undertaking has been reviewed under the programmatic agreement entitled Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Transportation to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska (February 2023), as amended, and meets the requirements to be considered a Tier III Project.

Sensitive Areas:

	MM - MM
Former Pilger Rest Area	US-275, north side MM 90.43 – MM 90.59

Commitments:

1) *A Sensitive Area has been identified on the north side of existing US-275 from MM 90.43 – 90.59. This Sensitive Area shall be indicated on project plans. (NDOT Design)*
2) *A Sensitive Area has been identified on the north side of existing US-275 from MM 90.43 – 90.59. No grading or project activities, including but not limited to, working, staging, borrowing, stockpiling, or storing material and/or equipment, shall occur within the boundary of the Sensitive Area(s). (Contractor)*
3) *A Memorandum of Agreement (MOA) shall be drafted and executed to implement the Data Recovery Plan approved by FHWA and concurred upon by SHPO to mitigate the adverse effect. (NDOT Environmental)*
4) *A project-level Programmatic Agreement (PA) shall be drafted to ensure geoarcheological investigations are completed. (NDOT Environmental)*

Provide narrative supporting no adverse effect finding, or detail efforts to avoid an adverse effect finding:

The Widen South + Shift Alternative would expand the existing two-lane highway to a four-lane expressway by constructing the new lanes directly south of existing US-275, with a slight shift south between 575th Avenue in Stanton County and 2nd Road in Cuming County as described above and in Enclosure, Figure 4. A 3R strategy would also be applied to the existing two lanes of US-275. In addition to mainline US-275 construction, the Widen South + Shift Alternative would improve various intersections along the route, including at the N-15 intersection with US-275 north of Pilger, which includes construction of an off-set right-turn lane.

Construction of the new eastbound travel lanes, off-set right-turn lane, shoulders and median would result in a new south edge of pavement located approximately 80 to 90 feet south of the existing pavement for the length of the Sharpe Homestead site adjacent to US-275. Construction would require removal of approximately 1 foot of topsoil and then fill and pavement would be placed on top of the Sharpe Homestead site. A minor amount of grading would be required at the toe of the fill to re-establish the ditch to convey roadway drainage to the ditch along the west side of N-15. NDOT evaluated several potential options to minimize impacts to the Sharpe Homestead site.

Minimization considered but not incorporated:

1. **Narrowing the Median:** The proposed median on rural sections of US-275 is a minimum of 54 feet wide. NDOT considered narrowing the median on the Widen South alternative to reduce impacts on the Sharpe Homestead site but determined that narrowing the median for a short section through the N-15 intersection is not advisable due to violation of driver expectancy and potential safety issues associated with adding curvature near the N-15 intersection.

2. **Right Turn Lane:** The proposed right-turn lane would be offset 15 to 20 feet from the driving lane along the Sharpe Homestead site to improve intersection sight distance. NDOT considered eliminating the offset but determined that the offset is appropriate to accommodate sight lines for turning and crossing traffic, providing a safer intersection.

Minimization incorporated into the design

1. **Earthwork:** The ditch along an expressway is typically a minimum of 2.5 feet deep, measured from the edge of shoulder. In an effort to minimize impacts on the Sharpe Homestead site, NDOT has flattened ditch grades as much as possible to limit the depth of excavation for the ditch to 0.5 to 2 feet.

   A typical ditch design along the Sharpe Homestead site would have maintained the existing drainage pattern by conveying runoff from west to east in a new ditch with a minimum 1-foot-deep excavation and a minimum 0.5% slope. To minimize impacts on the site, NDOT has modified the drainage pattern slightly so that US-275 runoff along the site instead flows east in a special ditch with a minimum excavation depth of 0.2 feet and minimum ditch slope of 0.2%. The proposed special ditch limits the deepest US-275 eastbound ditch excavation to less than 2 feet along the Sharpe Homestead site.

Despite these minimization efforts, FHWA has determined that the Sharpe Homestead site would be adversely affected by construction of the preferred alternative through destruction of all or part of the significant archeological site.

This undertaking has been reviewed under the programmatic agreement entitled Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Transportation to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska (February 2023), as amended, and meets the requirements to be considered a Tier III Project.

Summarize mitigation:
Archeological Data Recovery Plan concurred upon by SHPO on 06/23/2023, see Section 106 Project Effects Report (05/30/2023).

Section 4(f): significant archeological site(s) within APE warranting preservation in place:

Archeological Site	Comment

This undertaking has been reviewed under the programmatic agreement entitled Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Transportation to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska (February 2023), as amended, and meets the requirements to be considered a Tier III Project.

2023 SHPO, Consulting Party & ACHP Correspondence

NEBRASKA
DEPARTMENT OF TRANSPORTATION

August 16, 2023

Dillon Dittmer, PWS
Environmental Protection Specialist
Federal Highway Administration
100 Centennial Mall North, Room 220
Lincoln, NE 68508-3803

Ref: *Construction of the Norfolk to Wisner Project on US-275*
Stanton and Cuming Counties, Nebraska
ACHP Project Number: 19903

Dear Mr. Dittmer:

On August 9, 2023, the Advisory Council on Historic Preservation (ACHP) received your notification and supporting documentation regarding the potential adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information you provided, we have concluded that Appendix A, Criteria for Council Involvement in Reviewing Individual Section 106 Cases, of Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe our participation in the consultation to resolve adverse effects is needed.

However, if we receive a request for participation from the Nebraska State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Should the undertaking's circumstances change, consulting parties cannot come to consensus, or you need further advisory assistance to conclude the consultation process, please contact us.

Pursuant to 36 CFR § 800.6(b)(1)(iv), you will need to file the final Section 106 agreement document (Agreement), developed in consultation with the Nebraska SHPO and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the Agreement and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the NHPA.

Thank you for providing us with your notification of adverse effect. If you have any questions or require our further assistance, please contact Ms. Emily Choi at (202) 517-0207 or by e-mail at echoi@achp.gov and reference the ACHP Project Number above.

Sincerely,

LaShavio Johnson

LaShavio Johnson
Historic Preservation Technician
Office of Federal Agency Programs

From:	Dittmer, Dillon (FHWA)
To:	e106
Cc:	luther, justin; Jurgens, Jason; Ziska, Courtney; Trenne, Ben
Subject:	Notice of Adverse Effect Determination: NDOT Project // Norfolk - Wisner, CN 32319, 275-6(1052) , Stanton and Cuming Counties, Nebraska
Attachments:	32319_Norfolk-Wisner_ACHP e106_08.09.2023.docx 32319_Norfolk-Wisner_ACHP e106 notification_Enclosures_08.09.2023.pdf

Pursuant to 36 CFR 800.6(a)(1), the Federal Highway Administration Nebraska Division (FHWA) is submitting the attached e106 Form and supporting documents to notify the Advisory Council on Historic Preservation of the adverse effect determination for the above-mentioned project. The FHWA is currently conducting the environmental review, consultation, and other required actions under applicable Federal environmental laws for this project through an Environmental Assessment.

The project in question, Norfolk - Wisner, CN 32319, 275-6(1052), is proposed by the Nebraska Department of Transportation. Comprehensive details regarding its scope, impact, and projected timeline can be found in the accompanying supporting documents.

The attached information describes the assessment of effects to any potentially impacted historical sites and describes efforts to avoid, minimize, or mitigate those adverse effects. The FHWA proposes to execute a Memorandum of Agreement that establishes the measures the division will implement to resolve the adverse effects per 36 CFR 800.6(b)(1)(i iv).

Please do not hesitate to contact me if any additional information or clarification is required.

Thank you,

Dillon Dittmer, PWS
Environmental Protection Specialist
Federal Highway Administration
o: 402-742-8465

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA DIVISION

100 Centennial Mall North, Rm 220
Lincoln, Nebraska 68508
402-742-8460
402-742-8480

June 20, 2023

Betty Gillespie
Interim Deputy State Historic Preservation Officer
Nebraska State Historical Society
Box 82554
Lincoln, NE 68508

Project Number 275-6(1052)
CN 32319
US-275, Norfolk – Wisner
Stanton and Cuming Counties
HP#2002-176-01
Consultation RE: Project Effects Determination

Dear Ms. Gillespie:

The Nebraska Department of Transportation (NDOT) proposes to construct the project referenced (the Project) above using funds from the Federal Highway Administration (FHWA). This project is located in Stanton and Cuming Counties on US-275 (Enclosure, Figure 1). Due to FHWA involvement, the proposed project is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act, as amended (36 CFR Part 800) requiring federal agencies to consider and consult about the effects of proposed projects on historic properties. FHWA is the lead federal agency. Please see Enclosure, Appendix A for a list of consulting parties.

An Environmental Assessment (EA) is currently being prepared, and the results of Section 106 consultation will be included in the EA document. As an EA, this project has **not** been assigned to NDOT pursuant to 23 U.S.C. §326, commonly referred to as "CE Assignment". FHWA is the lead federal agency.

FHWA completed consultation with the State Historic Preservation Office (SHPO) regarding National Register of Historic Places (NRHP) eligibility and other consulting parties in 2020. SHPO concurred upon a FHWA determination that there are two historic properties, the Sharpe Homestead site (25ST16) and the former Pilger Rest Area, present within the area of potential effects (APE) (Enclosure, Appendix B). In 2020, project design had not progressed to the point where a project effects determination could be made. Project planning has progressed and FHWA is reinitiating consultation with SHPO and consulting parties.

Project Description
This project would improve approximately 16 miles of US-275 located in Stanton and Cuming Counties. The Project begins near mile marker (MM) 85.80 and extends east to MM 101.79. The improvements would expand the existing highway to a four-lane expressway by constructing a new, parallel, two-lane roadway (called "2+2 Construction" by NDOT) on one side of the existing US-275. In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 at two locations and Nebraska Highway 51 northwest of Wisner, along with various county roads. Drainage structures would either be extended, replaced, or used in place. A Restoration, Rehabilitation, and Resurfacing (3R) strategy may also be applied to the existing two lanes. The Project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Temporary surfacing may be required to accommodate phased construction. No detour is required.

The preferred alternative being carried forward in the draft EA is the Widen South + Shift Alternative which includes adding two new lanes on the south side of the existing US-275. Between 575th Avenue in

Stanton County and 2nd Road in Cuming County, the eastbound lanes would shift approximately 150 feet to the south to avoid an intermittent channel feature in the south ditch of the existing roadway.

2023 Section 106 Supplemental Evaluation
Since consultation completed in 2020, NDOT determined that proposed construction activities associated with realignment of County Road 573 are outside the archeological APE previously considered. Therefore, the archeological APE has be expanded to encompass these activities (Enclosure, Appendix C). The architectural/structural APE previously considered remains appropriate and was not expanded. No architectural/structural historic properties are located within the expanded APE.

Review of the Nebraska State Historical Society Cultural Resources Geographic Information System (NCRGIS) archeological resources database and historic maps indicated that there are no previously recorded archeological sites located within the expanded APE or in the immediate vicinity of the expanded APE.

Highway Archeologist Nolan Johnson completed intensive pedestrian survey of the expanded APE on May 24, 2023 using transects spaced at 20 meters apart, walking in a zig zag pattern along the transect. The expanded APE is planted in corn, and ground surface visibility ranged between 25 to 50%. No archeological sites were identified, and Johnson notes that the expanded APE has been previously disturbed by activities unrelated to this proposed transportation project, including straightening of Humbug Creek and extensive agricultural modifications.

There are no historic properties within the 2023 expanded APE.

Historic Properties
Two historic properties have been identified within the area of potential effect (APE), 25ST16, Sharpe Homestead archeological site and the former Pilger Rest Area.

Pilger Rest Area
The Pilger Rest Area is a former NDOT rest area is located approximately three miles west of Pilger on the north side of US-275 (Enclosure, Figure 2). Constructed in 1969, the rest area features a mid-century one-story red brick building with a flat concrete roof, wide brick columns and glass block windows centered among curvilinear concrete walkways. Open air picnic shelters line the curvilinear walkways, echoing the main building with flat concrete roofs, brick walls, concrete table and benches, concrete floor, and stationary charcoal grill. The site also features a curvilinear drive, a parking lot and a windbreak.

Using funding obtained under the Highway Beautification Act of 1965, this rest area is one of four rest areas that NDOT constructed which were located away from the Interstate 80 system (Lincoln Journal Star, June 05, 1969). Commonly associated with Lady Bird Johnson, the Highway Beautification Act encouraged clean up and beautification of the nation's highways. NDOT owned and operated the Pilger Rest Area until the mid-2000s. It is now in private ownership.

FHWA determined that the Pilger Rest Area is NRHP eligible at the local level under Criterion A for a significant association with Transportation and under Criterion C for Architecture and Landscape Design. This property retains all aspects of physical integrity.

Sharpe Homestead archeological site (25ST16)
Located approximately 1/2 mile north of Pilger (Enclosure, Figure 3), the Sharpe Homestead archeological site encompasses approximately 3.5 acres and consists of a homestead site settled by the Sharpe family in the mid-1860s. This site retains a high degree of physical integrity and due to its early date and local significance as likely the first homestead in Stanton County, FHWA determined that this archeological site is eligible for listing in the NRHP under Criterion D. This archeological site is likely to yield information important to our past that is not available through archival resources.

SHPO concurred upon these NRHP determinations in 2020 (Enclosure, Appendix B).

Consulting Party and Public Participation
Consulting parties invited to participate in consultation regarding this undertaking include the property owners of two identified historic properties, the City of Wisner, Cuming County Historical Society, Historical Society of Stanton County, Stanton County Museum (Pilger location), Village of Pilger, Wisner Heritage Museum, the Ponca Tribe of Nebraska, the Ponca Tribe of Oklahoma, Otoe-Missouria Tribe, the Omaha Tribe of Nebraska, Pawnee Nation of Oklahoma, Santee Sioux Nation, and the Winnebago Tribe of Nebraska.

FHWA and NDOT hosted a stakeholder meeting in Wisner on August 27, 2019 and the then identified consulting parties were invited to attend. NDOT Professional Qualified Staff (PQS) Stacy Stupka provided a brief overview of potential historic properties along the proposed alignment during this meeting; no concerns regarding historic properties were voiced during this meeting. A public information meeting regarding this project was held in Wisner on September 10, 2019 and again, consulting parties were invited to attend. Stupka was in attendance and provided information to the public regarding the historic properties identified. No concerns regarding historic properties have been received to date.

To date, only the Pawnee Tribe of Oklahoma has provided comments in response to invitations the stakeholder and public meetings. On September 16, 2019, Matt Reed, the Tribal Historic Preservation Officer (THPO) for the Pawnee Nation of Oklahoma responded on behalf of the Tribe indicating that the "proposed project does not appear to adversely affect the cultural landscape of the Pawnee Nation" and indicated that the project may proceed as planned. Mr. Reed did indicate that if undiscovered properties are encountered, that consultation with his office be re-initiated (Appendix B).

Under the statewide Section 106 Programmatic Agreement signed in February 2023, several additional tribes have been identified as consulting parties. These tribes include Arapaho Tribe of the Wind River Reservation, Wyoming; Cheyenne and Arapaho Tribes, Oklahoma, Cheyenne River Sioux Tribe, South Dakota; Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana; Oglala Sioux Tribe, Rosebud Sioux Tribe of the Rosebud Sioux Indian Reservation, South Dakota, Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota and the Yankton Sioux Tribe of South Dakota.

Assessing Project Effects
NDOT PQS Stacy Stupka assessed the potential for adverse effects by utilizing the adverse effects methodology identified at 36 CFR Part 800.5, and her detailed assessment is included and an enclosure to this letter.

FHWA has determined that the preferred alternative avoids a direct effect to the former Pilger Rest Area (Enclosure, Figure 5) depicts the preliminary impact area adjacent to the former Pilger Rest Area as identified by project designers. The additional lanes of traffic are designed to alleviate traffic on an already busy two lane highway. While the conversion of this two lane highway to a four lane highway will increase the average daily traffic count in the US-275 corridor, the increase in traffic will not affect this historic property. Constructed as a transportation related resource, those characteristics that cause this property to be a good candidate for listing in the NRHP will not be altered. This historic property will not be affected by the project as proposed.

When considering the preferred alternative, FHWA has determined that the Widen South + Shift Alternative would adversely affect the Sharpe Homestead archeological site (25ST16) (Enclosure, Figure 6). Per 36 CFR Part 800.6, NDOT developed and evaluated alternatives or modifications to the undertaking that could avoid, minimize or mitigate the adverse effect on the historic property, and these are discussed below.

Avoidance, Minimization and Mitigation of the Adverse Effect
The Widen South + Shift Alternative would expand the existing two-lane highway to a four-lane expressway by constructing the new lanes directly south of existing US-275, with a slight shift south

between 575th Avenue in Stanton County and 2nd Road in Cuming County as described above and in Enclosure, Figure 4. A 3R strategy would also be applied to the existing two lanes of US-275. In addition to mainline US-275 construction, the Widen South + Shift Alternative would improve various intersections along the route, including at the N-15 intersection with US-275 north of Pilger, which includes construction of an off-set right-turn lane.

Construction of the new eastbound travel lanes, off-set right-turn lane, shoulders and median would result in a new south edge of pavement located approximately 80 to 90 feet south of the existing pavement for the length of the Sharpe Homestead site adjacent to US-275. Construction would require removal of approximately 1 foot of topsoil and then fill and pavement would be placed on top of the Sharpe Homestead site. A minor amount of grading would be required at the toe of the fill to re-establish the ditch to convey roadway drainage to the ditch along the west side of N-15. NDOT evaluated several potential options to minimize impacts to the Sharpe Homestead site.

Minimization considered but not incorporated:

1. **Narrowing the Median:** The proposed median on rural sections of US-275 is a minimum of 54 feet wide. NDOT considered narrowing the median on the Widen South alternative to reduce impacts on the Sharpe Homestead site but determined that narrowing the median for a short section through the N-15 intersection is not advisable due to violation of driver expectancy and potential safety issues associated with adding curvature near the N-15 intersection.

2. **Right Turn Lane:** The proposed right-turn lane would be offset 15 to 20 feet from the driving lane along the Sharpe Homestead site to improve intersection sight distance. NDOT considered eliminating the offset but determined that the offset is appropriate to accommodate sight lines for turning and crossing traffic, providing a safer intersection.

Minimization incorporated into the design

1. **Earthwork:** The ditch along an expressway is typically a minimum of 2.5 feet deep, measured from the edge of shoulder. In an effort to minimize impacts on the Sharpe Homestead site, NDOT has flattened ditch grades as much as possible to limit the depth of excavation for the ditch to 0.5 to 2 feet.

   A typical ditch design along the Sharpe Homestead site would have maintained the existing drainage pattern by conveying runoff from west to east in a new ditch with a minimum 1-foot-deep excavation and a minimum 0.5% slope. To minimize impacts on the site, NDOT has modified the drainage pattern slightly so that US-275 runoff along the site instead flows east in a special ditch with a minimum excavation depth of 0.2 feet and minimum ditch slope of 0.2%. The proposed special ditch limits the deepest US-275 eastbound ditch excavation to less than 2 feet along the Sharpe Homestead site.

Despite these minimization efforts, FHWA has determined that the Sharpe Homestead site would be adversely affected by construction of the preferred alternative through destruction of all or part of the significant archeological site.

Therefore, based upon information gather during archeological site testing activities, FHWA approves the data recovery plan presented as (Enclosure, Appendix D).

FHWA has determined that the Sharpe Homestead site will be adversely affected and attempts to avoid or minimize the adverse effect will not resolve the adverse effect. FHWA requests NESHPO concurrence with FHWA's determination that no historic properties are present within the expanded APE (Enclosure, Appendix C), with the *adverse effect* determination, as well as upon the enclosed data recovery plan as mitigation for the adverse effect this undertaking would have on the historic property, the Sharpe Homestead archeological site (25ST16). FHWA will notify the Advisory Council on Historic Preservation of the adverse effect.

Upon receiving SHPO concurrence, FHWA will further engage SHPO in consultation regarding the development of a Memorandum of Agreement (MOA) using the enclosed data recovery plan as mitigation for the adverse effect.
If you have any questions regarding this information do not hesitate to contact me at your convenience.

Sincerely,

Dillon Dittmer
Environmental Protection Specialist
402-742-8465
Dillon.dittmer@dot.gov

CONCUR:

Betty Gillespie, Interim Deputy State Historic Preservation Officer 6/22/2023 Date

ENCLOSURE

Pawnee Nation

Thursday, July 20, 2023

Dillon Dittmer
Environmental Protection Specialist
Federal Highway Administration
US Department of Transportation

RE: *NDOT 275-6(1052) CN32319*
US-275 from Norfolk to Wisner
Stanton and Cuming counties, Nebraska

The Pawnee Nation Office of Historic Preservation has received the information and materials requested for our Section 106 Review & Consultation. Consultation with the Pawnee Nation is required by Section 106 of the National Historic Preservation Act of 1966 (NHPA), and 36 CFR Part 800.

Given the information provided, you are hereby notified that the proposed project/s should not adversely affect the cultural landscape of the Pawnee Nation.

However, be advised that additional undiscovered properties could be encountered, and they must be immediately reported to us under both the National Historic Preservation Act and the Native American Graves Protection and Repatriation Act regulations.

This information is provided to assist you in complying with 36 CFR Part 800 for Section 106 Consultation procedures. Should you have questions, please do not hesitate to contact me at jreed@pawneenation.org or by phone at 918-762-2180 ext. 220. Thank you for your time and consideration.

Sincerely,

Joseph M. Reed

Matt Reed
Historic Preservation Officer
Pawnee Nation of Oklahoma

Historic Preservation Office
Matt Reed
Phone: 918.762.2180
E-mail: jreed@pawneenation.org
P.O. Box 470
Pawnee, Oklahoma 74058

From:	Dittmer, Dillon (FHWA)
To:	Stupka, Stacy
Subject:	FW: Request for Review and Comment: US-275, Norfolk - Wisner; Stanton & Cuming Counties, Nebraska;
Date:	Wednesday, July 5, 2023 7:26:57 AM

Stacy,

Please find the City of Wisner's response below.

Dillon Dittmer, PWS
Environmental Protection Specialist
Federal Highway Administration
o: 402-742-8465

From: Steph - Gmail <citywisnersteph@gmail.com>
Sent: Wednesday, June 28, 2023 11:21 AM
To: Dittmer, Dillon (FHWA) <dillon.dittmer@dot.gov>
Subject: RE: Request for Review and Comment: US-275, Norfolk - Wisner; Stanton & Cuming Counties, Nebraska;

CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

We know of no known historical sites at this time.

Stephanie James, CMC
City Clerk/Treasurer
City of Wisner
PO Box 367
Wisner, NE 68791
1-402-529-6616
Fax 1-402-529-6425

From: Dittmer, Dillon (FHWA) <dillon.dittmer@dot.gov>
Sent: Tuesday, June 20, 2023 2:20 PM
Subject: Request for Review and Comment: US-275, Norfolk - Wisner; Stanton & Cuming Counties, Nebraska;

U.S. Department of Transportation
Federal Highway Administration

Request for Review and Comment Under Section 106 of the National Historic Preservation Act

Project Name: US-275, Norfolk - Wisner

Project No.: 275-6(1052)
Control No.: 32319
Counties: Stanton and Cuming, Nebraska

Hello,

The Nebraska Department of Transportation (NDOT) proposes to construct the referenced project above using funds from the Federal Highway Administration (FHWA). Due to FHWA involvement, the proposed project is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act, as amended (36 CFR Part 800) requiring federal agencies to consider and consult about the effects of proposed projects on historic properties. FHWA is the lead federal agency and is in the process of completing an Environmental Assessment.

For your review and comment, please find attached information regarding the referenced project above. FHWA invites your comment upon National Register of Historic Places eligibility and the project effects determination indicated below and in the attachments.

Under Section 106, FHWA has made the following project effects determination:

☐**No Historic Properties Affected**
No historic properties were identified within the APE

☐**No Historic Properties Affected**
Historic properties were identified within the APE, but they will not be affected by the proposed undertaking

☐**No Adverse Effect**
Historic properties were identified within the APE, but they will not be adversely affected by the proposed undertaking

☒**Adverse Effect**
Historic properties identified within the APE will be adversely affected by the proposed undertaking

If you have any questions, please don't hesitate to contact me.

Respectfully,

Dillon Dittmer, PWS
Environmental Protection Specialist
Federal Highway Administration
o: 402-742-8465

U.S. Department of Transportation
Federal Highway Administration

Example, Consulting Party Letter

NEBRASKA
DEPARTMENT OF TRANSPORTATION

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA DIVISION
100 Centennial Mall North, Rm 220
Lincoln, Nebraska 68508
402-742-8460
402-742-8480

June 20, 2023

Project Number 275-6(1052)
CN 32319
US-275, Norfolk – Wisner
Stanton and Cuming Counties
HP#2002-176-01
Consultation RE: Project Effects Determination

Hello,

The Nebraska Department of Transportation (NDOT) proposes to construct the project referenced (the Project) above using funds from the Federal Highway Administration (FHWA). This project is located in Stanton and Cuming Counties on US-275 (Enclosure, Figure 1). Due to FHWA involvement, the proposed project is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act, as amended (36 CFR Part 800) requiring federal agencies to consider and consult about the effects of proposed projects on historic properties. FHWA is the lead federal agency. Please see Enclosure, Appendix A for a list of consulting parties.

An Environmental Assessment (EA) is currently being prepared, and the results of Section 106 consultation will be included in the EA document. As an EA, this project has **not** been assigned to NDOT pursuant to 23 U.S.C. §326, commonly referred to as "CE Assignment". FHWA is the lead federal agency.

FHWA completed consultation with the State Historic Preservation Office (SHPO) regarding National Register of Historic Places (NRHP) eligibility and other consulting parties in 2020. SHPO concurred upon a FHWA determination that there are two historic properties, the Sharpe Homestead site (25ST16) and the former Pilger Rest Area, present within the area of potential effects (APE) (Enclosure, Appendix B). In 2020, project design had not progressed to the point where a project effects determination could be made. Project planning has progressed and FHWA is reinitiating consultation with SHPO and consulting parties.

Project Description
This project would improve approximately 16 miles of US-275 located in Stanton and Cuming Counties. The Project begins near mile marker (MM) 85.80 and extends east to MM 101.79. The improvements would expand the existing highway to a four-lane expressway by constructing a new, parallel, two-lane roadway (called "2+2 Construction" by NDOT) on one side of the existing US-275. In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 at two locations and Nebraska Highway 51 northwest of Wisner, along with various county roads. Drainage structures would either be extended, replaced, or used in place. A Restoration, Rehabilitation, and Resurfacing (3R) strategy may also be applied to the existing two lanes. The Project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Temporary surfacing may be required to accommodate phased construction. No detour is required.

The preferred alternative being carried forward in the draft EA is the Widen South + Shift Alternative which includes adding two new lanes on the south side of the existing US-275. Between 575th Avenue in Stanton County and 2nd Road in Cuming County, the eastbound lanes would shift approximately 150 feet to the south to avoid an intermittent channel feature in the south ditch of the existing roadway.

2023 Section 106 Supplemental Evaluation
Since consultation completed in 2020, NDOT determined that proposed construction activities associated with realignment of County Road 573 are outside the archeological APE previously considered. Therefore, the archeological APE has be expanded to encompass these activities (Enclosure, Appendix

C). The architectural/structural APE previously considered remains appropriate and was not expanded. No architectural/structural historic properties are located within the expanded APE.

Review of the Nebraska State Historical Society Cultural Resources Geographic Information System (NCRGIS) archeological resources database and historic maps indicated that there are no previously recorded archeological sites located within the expanded APE or in the immediate vicinity of the expanded APE.

Highway Archeologist Nolan Johnson completed intensive pedestrian survey of the expanded APE on May 24, 2023 using transects spaced at 20 meters apart, walking in a zig zag pattern along the transect. The expanded APE is planted in corn, and ground surface visibility ranged between 25 to 50%. No archeological sites were identified, and Johnson notes that the expanded APE has been previously disturbed by activities unrelated to this proposed transportation project, including straightening of Humbug Creek and extensive agricultural modifications.

There are no historic properties within the 2023 expanded APE.

Historic Properties
Two historic properties have been identified within the area of potential effect (APE), 25ST16, Sharpe Homestead archeological site and the former Pilger Rest Area.

Pilger Rest Area
The Pilger Rest Area is a former NDOT rest area is located approximately three miles west of Pilger on the north side of US-275 (Enclosure, Figure 2). Constructed in 1969, the rest area features a mid-century one-story red brick building with a flat concrete roof, wide brick columns and glass block windows centered among curvilinear concrete walkways. Open air picnic shelters line the curvilinear walkways, echoing the main building with flat concrete roofs, brick walls, concrete table and benches, concrete floor, and stationary charcoal grill. The site also features a curvilinear drive, a parking lot and a windbreak.

Using funding obtained under the Highway Beautification Act of 1965, this rest area is one of four rest areas that NDOT constructed which were located away from the Interstate 80 system (Lincoln Journal Star, June 05, 1969). Commonly associated with Lady Bird Johnson, the Highway Beautification Act encouraged clean up and beautification of the nation's highways. NDOT owned and operated the Pilger Rest Area until the mid-2000s. It is now in private ownership.

FHWA determined that the Pilger Rest Area is NRHP eligible at the local level under Criterion A for a significant association with Transportation and under Criterion C for Architecture and Landscape Design. This property retains all aspects of physical integrity.

Sharpe Homestead archeological site (25ST16)
Located approximately 1/2 mile north of Pilger (Enclosure, Figure 3), the Sharpe Homestead archeological site encompasses approximately 3.5 acres and consists of a homestead site settled by the Sharpe family in the mid-1860s. This site retains a high degree of physical integrity and due to its early date and local significance as likely the first homestead in Stanton County, FHWA determined that this archeological site is eligible for listing in the NRHP under Criterion D. This archeological site is likely to yield information important to our past that is not available through archival resources.

SHPO concurred upon these NRHP determinations in 2020 (Enclosure, Appendix B).

Consulting Party and Public Participation
Consulting parties invited to participate in consultation regarding this undertaking include the property owners of two identified historic properties, the City of Wisner, Cuming County Historical Society, Historical Society of Stanton County, Stanton County Museum (Pilger location), Village of Pilger, Wisner Heritage Museum, the Ponca Tribe of Nebraska, the Ponca Tribe of Oklahoma, Otoe-Missouria Tribe, the Omaha Tribe of Nebraska, Pawnee Nation of Oklahoma, Santee Sioux Nation, and the Winnebago Tribe of Nebraska.

FHWA and NDOT hosted a stakeholder meeting in Wisner on August 27, 2019 and the then identified consulting parties were invited to attend. NDOT Professional Qualified Staff (PQS) Stacy Stupka provided a brief overview of potential historic properties along the proposed alignment during this meeting; no concerns regarding historic properties were voiced during this meeting. A public information meeting regarding this project was held in Wisner on September 10, 2019 and again, consulting parties were invited to attend. Stupka was in attendance and provided information to the public regarding the historic properties identified. No concerns regarding historic properties have been received to date.

To date, only the Pawnee Tribe of Oklahoma has provided comments in response to invitations the stakeholder and public meetings. On September 16, 2019, Matt Reed, the Tribal Historic Preservation Officer (THPO) for the Pawnee Nation of Oklahoma responded on behalf of the Tribe indicating that the "proposed project does not appear to adversely affect the cultural landscape of the Pawnee Nation" and indicated that the project may proceed as planned. Mr. Reed did indicate that if undiscovered properties are encountered, that consultation with his office be re-initiated (Enclosure, Appendix B).

Under the statewide Section 106 Programmatic Agreement signed in February 2023, several additional tribes have been identified as consulting parties. These tribes include Arapaho Tribe of the Wind River Reservation, Wyoming; Cheyenne and Arapaho Tribes, Oklahoma, Cheyenne River Sioux Tribe, South Dakota; Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana; Oglala Sioux Tribe, Rosebud Sioux Tribe of the Rosebud Sioux Indian Reservation, South Dakota, Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota and the Yankton Sioux Tribe of South Dakota.

Assessing Project Effects
NDOT PQS Stacy Stupka assessed the potential for adverse effects by utilizing the adverse effects methodology identified at 36 CFR Part 800.5, and her detailed assessment is included and an enclosure to this letter.

FHWA has determined that the preferred alternative avoids a direct effect to the former Pilger Rest Area (Enclosure, Figure 5) depicts the preliminary impact area adjacent to the former Pilger Rest Area as identified by project designers. The additional lanes of traffic are designed to alleviate traffic on an already busy two lane highway. While the conversion of this two lane highway to a four lane highway will increase the average daily traffic count in the US-275 corridor, the increase in traffic will not affect this historic property. Constructed as a transportation related resource, those characteristics that cause this property to be a good candidate for listing in the NRHP will not be altered. This historic property will not be affected by the project as proposed.

When considering the preferred alternative, FHWA has determined that the Widen South + Shift Alternative would adversely affect the Sharpe Homestead archeological site (25ST16) (Enclosure, Figure 6). Per 36 CFR Part 800.6, NDOT developed and evaluated alternatives or modifications to the undertaking that could avoid, minimize or mitigate the adverse effect on the historic property, and these are discussed below.

Avoidance, Minimization and Mitigation of the Adverse Effect
The Widen South + Shift Alternative would expand the existing two-lane highway to a four-lane expressway by constructing the new lanes directly south of existing US-275, with a slight shift south between 575th Avenue in Stanton County and 2nd Road in Cuming County as described above and in Enclosure, Figure 4. A 3R strategy would also be applied to the existing two lanes of US-275. In addition to mainline US-275 construction, the Widen South + Shift Alternative would improve various intersections along the route, including at the N-15 intersection with US-275 north of Pilger, which includes construction of an off-set right-turn lane.

Construction of the new eastbound travel lanes, off-set right-turn lane, shoulders and median would result in a new south edge of pavement located approximately 80 to 90 feet south of the existing pavement for the length of the Sharpe Homestead site adjacent to US-275. Construction would require removal of approximately 1 foot of topsoil and then fill and pavement would be placed on top of the Sharpe Homestead site. A minor amount of grading would be required at the toe of the fill to re-establish the ditch

to convey roadway drainage to the ditch along the west side of N-15. NDOT evaluated several potential options to minimize impacts to the Sharpe Homestead site.

Minimization considered but not incorporated:

1. **Narrowing the Median:** The proposed median on rural sections of US-275 is a minimum of 54 feet wide. NDOT considered narrowing the median on the Widen South alternative to reduce impacts on the Sharpe Homestead site but determined that narrowing the median for a short section through the N-15 intersection is not advisable due to violation of driver expectancy and potential safety issues associated with adding curvature near the N-15 intersection.
2. **Right Turn Lane:** The proposed right-turn lane would be offset 15 to 20 feet from the driving lane along the Sharpe Homestead site to improve intersection sight distance. NDOT considered eliminating the offset but determined that the offset is appropriate to accommodate sight lines for turning and crossing traffic, providing a safer intersection.

Minimization incorporated into the design

1. **Earthwork:** The ditch along an expressway is typically a minimum of 2.5 feet deep, measured from the edge of shoulder. In an effort to minimize impacts on the Sharpe Homestead site, NDOT has flattened ditch grades as much as possible to limit the depth of excavation for the ditch to 0.5 to 2 feet.

   A typical ditch design along the Sharpe Homestead site would have maintained the existing drainage pattern by conveying runoff from west to east in a new ditch with a minimum 1-foot-deep excavation and a minimum 0.5% slope. To minimize impacts on the site, NDOT has modified the drainage pattern slightly so that US-275 runoff along the site instead flows east in a special ditch with a minimum excavation depth of 0.2 feet and minimum ditch slope of 0.2%. The proposed special ditch limits the deepest US-275 eastbound ditch excavation to less than 2 feet along the Sharpe Homestead site.

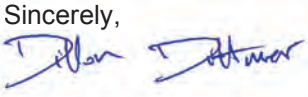
Despite these minimization efforts, FHWA has determined that the Sharpe Homestead site would be adversely affected by construction of the preferred alternative through destruction of all or part of the significant archeological site.

Therefore, based upon information gather during archeological site testing activities, FHWA approves the data recovery plan presented as (Enclosure, Appendix D).

FHWA has determined that the Sharpe Homestead site will be adversely affected and attempts to avoid or minimize the adverse effect will not resolve the adverse effect. FHWA is providing this documentation for your review and invites your comment upon FHWA's determination that no historic properties are present within the expanded APE (Enclosure, Appendix C), the *adverse effect* determination, and upon the enclosed data recovery plan as mitigation for the adverse effect this undertaking would have on the historic property, the Sharpe Homestead archeological site (25ST16). FHWA will notify the Advisory Council on Historic Preservation of the adverse effect.

We respectfully request that you provide any objections within 30 days of receipt of this letter. If you have any questions regarding this information do not hesitate to contact me.

Sincerely,



Dillon Dittmer
Environmental Protection Specialist
402-742-8465
Dillon.dittmer@dot.gov

Enclosure
FHWA.NE@dot.gov

2019-2020 SHPO & Consulting Party Responses

NEBRASKA
DEPARTMENT OF TRANSPORTATION

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA DIVISION
100 Centennial Mall North, Room 220
Lincoln, NE, 68508
402-742-8460
Fax 402-742-8480
Nebraska.FHWA@dot.gov

February 25, 2020

History Nebraska
RECEIVED
FEB 25 2020
NE State Historic
Preservation Office

HP# 2002-176-01

Ms. Jill E. Dolberg
Deputy State Historic Preservation Officer
History Nebraska
P.O. Box 82554
Lincoln, NE 68508

Dear Ms. Dolberg:

Project S-275-6(1052), CN 32319
Norfolk to Wisner
Stanton and Cuming Counties
Cultural Resources Evaluation

The Nebraska Department of Transportation (NDOT) proposes to construct the project referenced (the Project) above using funds from the Federal Highway Administration (FHWA). This project is located in Stanton and Cuming Counties on US-275 (Enclosure 1). Due to FHWA involvement, the proposed project is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act, as amended, (36 CFR Part 800) requiring federal agencies to consider and consult about the effects of proposed projects on historic properties.

An Environmental Assessment (EA) is currently being prepared, and the results of Section 106 consultation will be included in the EA document. As an EA, this project has **not** been assigned to NDOT pursuant to 23 U.S.C. §326, commonly referred to as "CE Assignment".

An evaluation of the potential for cultural resources, both archeological and architectural and structural, is included below [and in enclosures]. Please review this documentation as required under Section 106 of the National Historic Preservation Act of 1966, as amended and implementing regulations at 36 CFR Part 800.

Project Description Summary
This project would improve approximately 16 miles of US-275 located in Stanton and Cuming Counties. The Project begins near mile marker (MM) 85.80 and extends east to MM 101.79. The improvements would expand the existing highway to a four-lane expressway by constructing a new, parallel, two-lane roadway (called "2+2 Construction" by NDOT) on one side of the existing US-275. In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 at two locations and Nebraska Highway 51 northwest of Wisner, along with various county roads. Drainage structures would either be extended, replaced, or used in place. A Restoration, Rehabilitation, and Resurfacing (3R) strategy may also be applied to the existing two lanes. The Project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Temporary surfacing may be required to accommodate phased construction. No detour is required.

Area of Potential Effects (APE)

The area of potential effect (APE) for Section 106 purposes is defined at 36 CFR 800.16(d) as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. Both the archeological APE and the architectural/structural APE was defined by professionally qualified staff (PQS) at the Nebraska Highway Cultural Resources Program in consultation with NDOT PQS Stacy Stupka.

The APE includes all activities needed to construct two additional lanes on either side of the existing highway and to improve tie-ins with N-15, N-51, and various county roads. Generally, the archeological APE extends approximately 300 feet from the existing centerline of US-275. At county roads, the APE extends approximately 800 feet north and south from the existing US-275 centerline while extending approximately 150 feet east and west from the existing county road centerline (Enclosures 2 and 3). The APE widens out to include an unnamed road and County Road 'S Road' approximately .75 miles northwest of the intersection of US-275 and N-51. In this area, the APE extends approximately 160 feet west of the unnamed road and 160 feet south of County Road 'S Road', please see Enclosure 3. The vertical APE is generally up to 5 feet deep for most of the Project but does extend to 15 feet at bridges and culverts. The vertical APE does consider areas identified as "cut" sections by HDR engineering in October 2019.

The architectural/structural APE extends 500 feet beyond the current Right of Way (ROW) on either side of the proposed project and 500 feet beyond the beginning and ending points of the project. Within the City of Wisner, the APE extends to the alley east of 16th Street and considers 25 feet beyond existing ROW. This APE considers potential direct effects as well as indirect or cumulative effects.

Archeological Evaluation

History Nebraska (HN) Highway Archeologist Nolan Johnson, along with other History Nebraska personnel and volunteers, conducted archeological evaluations on the project between Fall 2016 and Summer 2019. A review of the History Nebraska Cultural Resources Geographic Information System (NCRGIS) archeological resources database and historic maps indicated that there are two previously identified archeological sites, 25ST15 and 25ST16, located within the APE (Enclosure 3). Following an archeological reconnaissance of the entire APE, Johnson and his crew completed intensive archeological investigations of 40 survey areas. The survey areas were selected based upon topography and Johnson's professional knowledge of the area and were investigated by pedestrian survey using 10 – 20 meter survey transects. As a result of these investigations, four new archeological sites, 25ST48, 25ST49, 25ST50 and 25ST51, were identified. A discussion of these archeological sites follows below.

25ST15

A prehistoric site originally recorded in 1991, this site has since been destroyed by land leveling activities unrelated to this undertaking. Johnson completed several intensive pedestrian surveys within the recorded site boundary and surrounding area. Investigators found one stone flake some distance to the east of the recorded site. No evidence of features was identified and the soil at the ground surface is now yellow subsoil. The single flake is an isolated find and is out of

context. The site has lost all integrity and is not recommended eligible for listing in the National Register of Historic Places (NRHP). ✓

25ST16, Sharpe Homestead site

This previously recorded archeological site is a homestead site settled by the Sharpe family in the mid-1860s. Homestead documents indicate that Charles Sharpe submitted a homestead application on November 21, 1865 and began occupying this site in March of 1866. It is considered to be the first homestead in Stanton County. This site was investigated by HN archeologists for an unrelated project in 2012. At this time, archeologists noted scatters of Euro-American artifacts and several visible depressions consistent with that of a former farmstead (Bozell, et al.). The farmstead was occupied into the 1980's.

During the investigations completed by Johnson, a large scatter of Euro-American artifacts, including considerable amounts of building debris, were observed on the ground surface. Johnson noted that though a larger portion of the site has now been plowed, four depressions remain visible. To gather more information regarding subsurface features at this site, HN contracted with the Midwest Archeological Center, National Park Service who investigated this site using various non-invasive geophysical instruments (Enclosure 4). Completed in June 2019, these geophysical investigations revealed numerous anomalies associated with non-extant structures, as well as utility trenches and possible fence lines.

This site retains a high degree of physical integrity and due to its early date and local significance as the first homestead in Stanton County it is recommended eligible for listing in the NRHP under Criterion D. This site is likely to yield information important to our past that is not available through archival resources. ✓

25ST48, 25ST49, 25ST50 and 25ST51

These four archeological sites are Euro-American scatters of artifacts consisting of ceramics, glassware, and metal fragments. Associated with non-extant farmsteads dating from late 19th to mid-20th centuries, these sites are not recommended eligible for inclusion in the NRHP because they lack physical integrity and lack of information potential that could contribute to our knowledge and understanding of history beyond that already available from archival records.

There is one significant archeological property, the Sharpe Homestead site (25ST16) in the APE.

Geomorphological Investigations

In collaboration with NDOT, History Nebraska Highway Archeologists have facilitated plans to complete geomorphological investigations to assess the potential for deeply buried archeological sites within the project corridor (Enclosure 5). Unfortunately, due to unforeseen circumstances these investigations have been delayed. These investigations will be completed as soon as possible.

Architectural / Structural Evaluation

This project was investigated by History Nebraska Preservation Associate Megan Hilger using the Nebraska State Historic Preservation Office (SHPO) inventory and site files, *Nebraska Historic Building Survey Reconnaissance Survey Final Report of Stanton County, Nebraska* (1988), *Cuming County Nebraska Historic Building Survey* (2000), the Stanton and Cuming

County Tax Assessor records, historic maps, and other primary and secondary sources. Background research indicates there were three properties within the APE that have been previously recommended eligible for listing in the NRHP, ST00-004, ST00-018 and ST00-028.

Hilger identified and evaluated all properties identified as meeting the SHPO Historic Resources Survey Manual criteria for survey and guidelines set forth in the 1991 National Park Service Bulletin 15: *How to Apply the National Register Criteria for Evaluation* (NPS Bulletin 15). These criteria include, but are not limited to, properties that are 40 years old or older; and are in their original location; and which possess sufficient physical integrity to convey NRHP significance. All surveyed properties were evaluated to determine NRHP eligibility.

The investigation resulted in the identification and NRHP evaluation of 52 properties within the APE. Of these properties, 51 properties are not recommended eligible for listing in the NRHP due to a lack of integrity and/or a lack of NRHP significance. Included within these 51 properties are five previously surveyed properties that are now non-extant, ST00-004, ST00-018, ST00-027, ST00-028 and ST00-121. One property, the Pilger Rest Area (Map ID 19) is recommended eligible for listing in the NRHP (Enclosure 6).

The bridges within the APE, S27508860, S27509309, S27509504, S27509508, S27509561, S27509644, S27509803, and S27510009 are not identified as eligible structures in the Nebraska inventories of bridges before 1947 or of those from 1947 to 1965. These inventories were a joint effort between the Nebraska Department of Roads and the Nebraska State Historic Preservation Office and evaluated the NRHP eligibility of all bridges in the state. These bridges are not listed in the inventories as eligible for inclusion on the NRHP because they do not possess the necessary engineering/design significance to be considered eligible. These bridges are also not on the list of structures excluded from the November 2012 Advisory Council on Historic Preservation Program Comment issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges.

Pilger Rest Area (Map ID 19)

This former NDOT rest area is located approximately three miles west of Pilger on the north side of US-275 (Enclosure 6). Constructed in 1969, the rest area features a mid-century one-story red brick building with a flat concrete roof, wide brick columns and glass block windows centered among curvilinear concrete walkways. Open air picnic shelters line the curvilinear walkways, echoing the main building with flat concrete roofs, brick walls, concrete table and benches, concrete floor, and stationary charcoal grill. The site also features a curvilinear drive, a parking lot and a windbreak.

Using funding obtained under the Highway Beautification Act of 1965, this rest area is one of four rest areas that NDOT constructed which were located away from the Interstate 80 system (Lincoln Journal Star, June 05, 1969). Commonly associated with Lady Bird Johnson, the Highway Beautification Act encouraged clean up and beautification of the nation's highways. NDOT owned and operated the Pilger Rest Area until the mid-2000s. It is now in private ownership.

The Pilger Rest Area is recommended NRHP eligible at the local level under Criterion A for a significant association with Transportation and under Criterion C for Architecture and Landscape Design. This property retains all aspects of physical integrity. The boundary of this historic property encompasses 10.21 acres and corresponds to the parcel historically associated with the property, described as Section 30 Township 24N Range 3E PT SW & PT SW SE 30-24-3 Pilger Precinct. For the purposes of this undertaking, the building, picnic structures, drive, parking lot, walkways and the northern windbreak are contributing elements to the property, as they are a cohesive design. The wooden windmill and split wood fence running the length of the property line are recommended as non-contributing elements to the property.

There is one historic architectural property within the APE, the Pilger Rest Area.

Consulting Party and Public Participation
Consulting parties invited to participate in consultation regarding this undertaking include the property owners of two identified historic properties, the City of Wisner, Cuming County Historical Society, Historical Society of Stanton County, Stanton County Museum (Pilger location), Village of Pilger, Wisner Heritage Museum, the Ponca Tribe of Nebraska, the Ponca Tribe of Oklahoma, Otoe-Missouria Tribe, the Omaha Tribe of Nebraska, Pawnee Nation of Oklahoma, Santee Sioux Nation, and the Winnebago Tribe of Nebraska.

NDOT hosted a stakeholder meeting in Wisner on August 27, 2019 and all consulting parties were invited to attend. NDOT PQS Stacy Stupka provided a brief overview of potential historic properties along the proposed alignment during this meeting; no concerns regarding historic properties were voiced during this meeting. A public information meeting regarding this project was held in Wisner on September 10, 2019 and again, consulting parties were invited to attend. Stupka was again in attendance and provided information to the public regarding the historic properties identified. No concerns regarding historic properties have been received to date.

To date, only the Pawnee Tribe of Oklahoma has provided comments in response to invitations the stakeholder and public meetings. On September 16, 2019, Matt Reed, the Tribal Historic Preservation Officer for the Pawnee Nation of Oklahoma responded on behalf of the tribe indicating that the "proposed project does not appear to adversely affect the cultural landscape of the Pawnee Nation" and indicated that the project may proceed as planned. Mr. Reed did indicate that if undiscovered properties are encountered, that consultation with his office be re-initiated (Enclosure 7).

NRHP Eligibility Determinations
Two historic properties, the Sharpe Homestead site (25ST16) and the Pilger Rest Area have been identified within the APE considered.

Project design has not progressed to a point which allows a project effects determination. Therefore, FHWA is providing this documentation for your review and requests your concurrence with project eligibility determinations contained within this letter and in enclosures. We respectfully request this concurrence within 30 days of receipt of this letter.

As design progresses, FHWA will reinitiate consultation to report upon the results of the geophysical investigations and to consider the project effects determination.

If you have any questions regarding this information, do not hesitate to contact me at your convenience.

Sincerely yours,

Scott H. Stapp
Environmental Protection Specialist

CONCUR:

Jill E. Dolberg, Deputy State Historic Preservation officer — Date 2/26/2020

ENCLOSURES:

1. Project Location Map
2. APE Map
3. Archeology Report
4. Geophysical Survey Report
5. Deep Testing Plan
6. Architectural / Structural Report
7. Pawnee Nation of Oklahoma, THPO response 09/16/19

Pawnee Nation of Oklahoma

Monday, September 16, 2019

Scott H. Stapp
Environmental Protection Specialist
US Department of Transportation
Federal Highway Administration
Nebraska Division
100 Centennial Mall North
Room 220
Lincoln, Nebraska 68508

RE: Section 106 Consultation and Review on:
Project S-275-6(1052), CN 32319
Norfolk to Wisner, Stanton & Cuming counties, Nebraska

Dear Mr. Stapp,

The Pawnee Nation Office of Historic Preservation has received the information and materials requested for our Section 106 Review and Consultation. Consultation with the Pawnee Nation is required by Section 106 of the National Historic Preservation Act of 1966 (NHPA), and 36 CFR Part 800.

Given the information provided, you are hereby notified that the proposed project/s does not appear to adversely affect the cultural landscape of the Pawnee Nation. Therefore, in accordance with 36 CFR 800.4(d) (1), you may proceed with your proposed project/s. However, be advised that additional undiscovered properties could be encountered, and they must be immediately reported to us under both the National Historic Preservation Act and the Native American Graves Protection & Repatriation Act regulations.

This information is provided to assist you in complying with 36 CFR Part 800 for Section 106 Consultation procedures. Should you have questions, please do not hesitate to contact me at jreed@pawneenation.org or by phone at 918-762-2180 ext 220. Thank you for your time and consideration.

Sincerely,
Matt Reed
Historic Preservation Officer
Pawnee Nation of Oklahoma

Historic Preservation Office
Matt Reed
Phone: 918.762.2180 Fax: 918.762.3662
E-mail: jreed@pawneenation.org
P.O. Box 470
Pawnee, Oklahoma 74058

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA DIVISION
100 Centennial Mall North, Room 220
Lincoln, NE, 68508
402-742-8460
Fax 402-742-8480
Nebraska.FHWA@dot.gov

August 15, 2019

Matt Reed, Tribal Historic Preservation Officer
Pawnee Nation of Oklahoma
P.O. Box 470
Pawnee, OK 74058

Dear Mr. Reed:

Project S-275-6(1052), CN 32319
Norfolk to Wisner
Stanton and Cuming Counties, Nebraska

The Federal Highway Administration (FHWA) invites you to a stakeholder meeting to discuss proposed Nebraska Department of Transportation (NDOT) improvements to approximately 16 miles of U.S. Highway 275 (US-275), located in Stanton and Cuming Counties, Nebraska. Identified as **Norfolk – Wisner**, the proposed project would expand the existing two-lane highway to a four-lane expressway. The project begins 8.5 miles east of Norfolk, approximately 0.30 mile west of the intersection of US-275 and Nebraska Highway 57 (N-57) at mile marker (MM) 85.80 and extends east and south to the west end of Wisner at MM 101.79, where it ties into the existing US-275 four-lane roadway. Please see the attached information for a map of the project location and an invitation card to the meeting.

Because of Federal Highway Administration (FHWA) involvement, these planned improvements are a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act (36 CFR Part 800) requiring federal agencies to consider and consult about the effects of proposed projects. On behalf of FHWA, NDOT would like initiate consultation with your organization to identify any cultural concerns with the proposed project.

The purpose of this meeting is to introduce you to the details of the project and give you an opportunity to ask questions of the project team. We encourage you or a representative of your organization to participate.

Date: Tuesday, August 27, 2019
Time: 4:00 PM – 5:00 PM
Location: Wisner-Pilger School, Elementary Library (Room 130)
801 18th St N, Wisner, NE 68791
*Check in with the office at the window and you will be directed to the library

Environmental surveys are underway, and as part of the Section 106 process, NDOT seeks your input regarding significant historic properties in and near the project area. More information will

be provided at the stakeholder meeting. If you cannot attend, but would like to share comments, please feel free to contact me at scott.stapp@dot.gov or phone 402-742-8465.

I look forward to seeing you.

Sincerely yours,

Scott H. Stapp

Scott H. Stapp
Environmental Protection Specialist

cc: Stacy Stupka, NDOT

Appendix G

Section 4(f)

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

Section 4(f) Initial Assessment

Project Development Division Form 040

Project Name	Project Number
Norfolk – Wisner	S-275-6(1052)

Control Number	Date Completed
32319	8/21/2023

Project Location *(Town, County)*	Name and Organization of Preparer
US-275, Stanton and Cuming Counties	Carmen Modrcin, HDR

The following form was developed as an initial assessment of potential Section 4(f) properties within a project area. The number of each question block corresponds directly to the NDOT Section 4(f) Guidance section with the same number. One Initial Assessment Form per PROJECT must be included as an attachment to the CE Form or incorporated into the appropriate chapter in the EA/EIS.

NOTE: At the time the Section 4(f) Initial Assessment Form is filled out, the Section 106 process must be sufficiently complete that historic properties have been identified. If a project effects determination has not been made by NDOT Section 106 Professionally Qualified Staff (PQS), use the best available information to make a determination and review during the NEPA process.

1. Identification of Section 4(f) Properties

A. *For historic properties*, based on the NDOT Section 106 Tier Review Form or best available information, are there properties that are listed or eligible for listing on the National Register of Historic Places?

☒ Yes ☐ No ☐ N/A (Section 106 Tier I)

If Yes, provide the name, Finding of Effect, and any other pertinent information from the Section 106 review for each identified property.

There are two properties located within the project area that are eligible for listing on the NRHP, 25ST16 Sharpe Site and Map ID 19 Former Pilger Rest Area.

- The Sharpe Homestead Site (25ST16) is located near the N-15 west junction and is considered the first homestead in Stanton County. The site retains a high degree of physical integrity and is eligible for listing in the NRHP under Criterion D for Information Potential. The NDOT PQS has determined that the site does not warrant preservation in place. The site would be adversely affected by the preliminary preferred alternative.
- The Former Pilger Rest Area is located at MM 90.05 between 570th Avenue and 571st Avenue. The former rest area was constructed in 1969 as part of the Highway Beautification Act of 1965 and features a mid-century one-story red brick building. Other amenities include large green spaces and picnic pavilions. The property is eligible for listing in the NRHP under Criterion A for a significant association with Transportation and Criterion C for Architecture and Landscape Design. The Former Pilger Rest Area would not be affected by the preliminary preferred alternative.

The Nebraska State Historic Preservation Office (NeSHPO) concurred with the eligibility determinations on February 26, 2020 and that the Sharpe Homestead Site does not warrant preservation in place on August 2, 2023.

B. Are there existing or planned parks, recreation areas, or wildlife/waterfowl refuges present within 0.25 miles of the project area?

☒ Yes ☐ No

C. In consultation with the online resources identified in the Section 4(f) Guidance, list the resources used to determine if parks, recreation areas, or wildlife/waterfowl refuges are present.

Google Earth Pro; NGPC Interactive Mapping Application; Nebraska Water Trails Guide; NGPC State Trails Plan; NGPC State Parks Map; NGPC Owned or Managed Sites Map; USFWS Wildlife Refuges; USFWS Wilderness Areas; USFWS Waterfowl Production Areas; Stanton County GIS, Stanton County Comprehensive Plan; Cuming County GIS, Cuming County Comprehensive Plan.

D. Identify all potential Section 4(f) parks, recreation areas, and wildlife/waterfowl refuges *(include property name(s), location(s) along project, etc.)*.

If any properties are listed in 1.A. or 1.C., proceed to 2.A. – 2.E. If there are no properties, documentation is complete.

Wisner-Pilger Public Schools is located adjacent to US-275 from approximately mile marker (MM) 101.55 to MM 101.78. Amenities include a junior/senior high school building, elementary school building, two playgrounds, walking path, football field and track, green space north of the track, and a practice field.

The Former Pilger Rest Area has amenities including a large green spaces, a restroom facility, and picnic pavilions.

2. Applicability Criteria for Section 4(f) Parks, Recreation Areas, and Wildlife/Waterfowl Refuges (not Historic Properties)

A. List all properties from 1.D. that are (1) NOT publicly owned, or (2) NOT privately owned and leased to a public entity, for a Section 4(f) protected purpose, and how this was determined.

The Stanton County Assessor (https://stanton.gworks.com/) indicates that the former NDOT rest area is privately owned and not open for public use.

B. List all properties from 1.D. that are NOT open to the public, and how this was determined. (This does NOT apply to wildlife/waterfowl refuges.)

N/A

C. List all properties from 1.D. that are considered multiple-use properties, and what those uses are.

The Wisner-Pilger Schools is a multi-use property. The buildings and parking areas located on the north side of the parcel are not intended for recreational use and are not open to the public. The playgrounds, walking path, football field and track, green space north of the track, and practice field are open to the public and considered eligible for Section 4(f) protection.

D. List all pedestrian or bicycle paths from 1.D. that are not officially designated primarily for recreation, and state below how this was determined.

N/A

E. List all properties from 1.D. that were NOT called-out in 2.A., B., or C.; these properties will be carried forward in the Section 4(f) process. Carry forward any multiple-use properties from 2.C. If no properties are carried forward, note below and documentation is complete.

Wisner-Pilger Public Schools

3. Determination of Section 4(f) Use

A. Is there a potential *use* of the Section 4(f) applicable properties from 2.E. above? Will the properties be impacted by the project, including access restrictions? (See Guidance Section 3 for definition of *use*.)

☒ Yes ☐ No Is there a potential *permanent* use?

☒ Yes ☐ No Is there a potential *temporary* use (including exceptions)?

☐ Yes ☒ No Is there a potential *constructive* use?

Any Yes: complete the appropriate Section 4(f) analysis for each impacted property

No: state impact avoidance measures below, then documentation is complete.

B. List impact avoidance measures (for "No" answer only). If justification is needed to support a "No" answer in 3.A., describe below.

The Former Pilger Rest Area would not be affected by the preliminary preferred alternative. No ROW is needed from this property. It would be designated as a Sensitive Area to be avoided during the completion of construction activities.

The Sharpe Homestead site would be impacted by the preliminary preferred alternative. ROW would be acquired and construction activities would adversely affect the site. As an archeological site that does not warrant preservation in place, it is anticipated that Section 4(f) Exception B applies (23 CFR 774.13(b)).

The Wisner-Pilger Public Schools practice field would be impacted by the preliminary preferred alternative. ROW would be acquired from the practice field for realignment of adjacent 21st and 18th Streets. One shot put pad would be relocated, and a second unused shot put pad would be removed. Access to the property would remain open during construction. A de minimis finding is anticipated.

NDOT Reviewer Approval Signature:

Courtney Ziska

Digitally signed by Courtney Ziska
Date: 2023.08.22 10:57:59 -05'00'

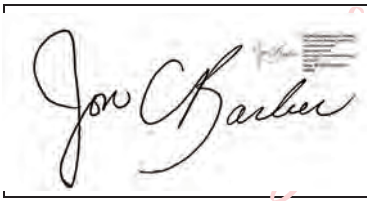
Date:

8/22/2023

NDOT Section or Documents Unit Manager signature is only required in the following circumstances:

- If the property is leased
- If the property is considered multiple-use
- If the Official(s) with Jurisdiction claims that the property is NOT significant

NDOT Section or Documents Unit Manager Signature:

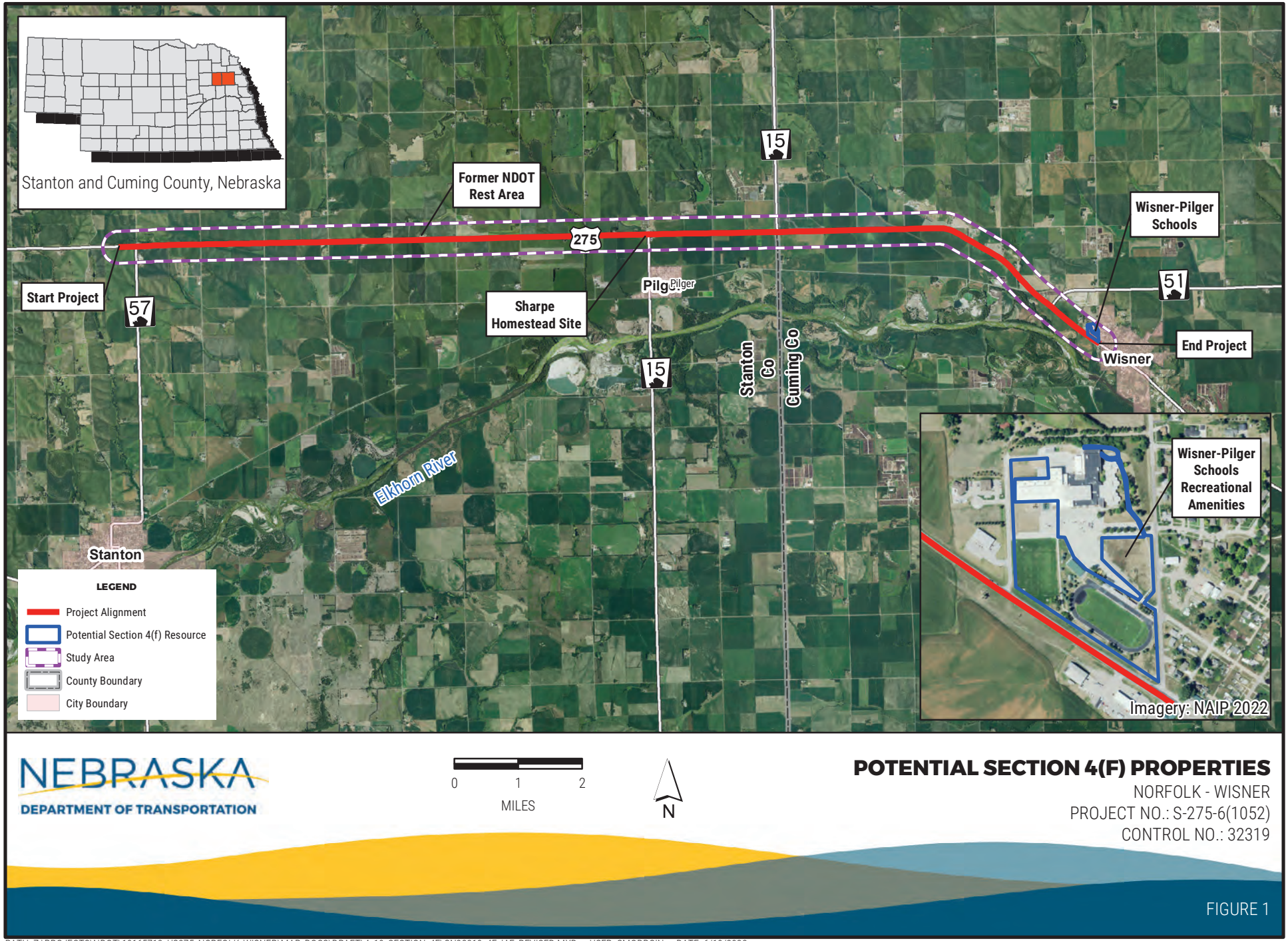


Digitally signed by Jon Barber
Date: 2023.08.22 11:19:56 -05'00'

Date:

Dillon Dittmer, PWS

Digitally signed by Dillon Dittmer, PWS
Date: 2023.09.21 11:39:18 -05'00'



POTENTIAL SECTION 4(F) PROPERTIES

NORFOLK - WISNER
PROJECT NO.: S-275-6(1052)
CONTROL NO.: 32319

FIGURE 1

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_10_SECTION_4F\CN32319_4F_IAF_REVISED.MXD - USER: CMODRCIN - DATE: 6/19/2023

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

Section 4(f) Exceptions

Project Development Division Form 041

Section 4(f) Exceptions (23 CFR 774.13): Public Parks, Recreation Lands, Wildlife & Waterfowl Refuges, and Historic Properties

Project Name

Norfolk - Wisner

Project Number

S-275-6(1052)

Control Number

32319

Project Location *(Road, Town, County)*

U.S. Highway 275 (US-275) in Stanton and Cuming Counties

Project Description

This project is 16.0 miles in length and is located on U.S. Highway 275 (US-275) in Stanton and Cuming Counties, starting 0.30 mile west of the junction of US-275 and Nebraska Highway 57 (N-57) and extending east to 0.25 mile southeast of the west corporate boundary of Wisner (Figure 1). Construction may begin and/or end approximately 500 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement.

The existing roadway on this segment of US-275 generally consists of two 12-foot-wide asphalt overlaid concrete lanes and 10-foot-wide shoulders, of which 8 feet are paved with asphalt.

The improvements on this project consist of expanding the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway on one side of the existing US-275 (called “2+2 Construction” by NDOT). In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 (N-15) at two locations and Nebraska Highway 51 (N-51) northwest of Wisner, along with various county roads. Additional work would consist of concrete repairs, culvert work, trench widening, removing and replacing pavement, bridge repairs, bridge replacement, lighting, and signing & striping. Grading would be required for the entire length of this project.

There are eight existing bridge sized structures located along the project. These include: a tributary of Payne Creek (Structure Number S275 08742), Payne Creek (Structure Number S275 08860), Humbug Creek (Structure Number S275 09309), three tributaries of the Elkhorn River (Structure Numbers S275 09504, S275 09508, S275 10009), a tributary of Sand Creek (Structure Number S275 09644), Sand Creek (Structure Number S275 09803). The structures would be extended, replaced, or used in place as determined at the Plan-In-Hand. A grade raise of the entire structure is anticipated for S075 08742 and S275 08860. Several new bridge size structures would be constructed with the project. These structures would have work in the waterway. New bridge sized structures requiring a grade raise would be constructed at the following locations: MM 92.79, 93.08, 96.09, and 96.83. New bridge sized structures not requiring a grade raise would be constructed at the following locations: MM 93.30, 94.23, 95.61, and 101.02. All of the listed bridge sized

structures would require work in the waterway. The limits of pavement replacement would be determined by Roadway Design. Guardrail would be replaced.

This project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Some county roads would not be constructed under traffic. Traffic would be detoured utilizing adjacent county roads. Work would not be required on those routes. Additional property rights would be required to build this project. Access to adjacent properties would be maintained during construction but may be limited at times due to phasing requirements. Details would be determined at the construction meeting.

Section 4(f) Property Name

Sharpe Homestead Site (25ST16)

Official(s) with Jurisdiction

Betty Gillespie, Interim Nebraska State Historic Preservation Officer, 402-805-7392, betty.gillespie@nebraska.gov

Property Description

The Sharpe Homestead Site (25ST16) is located near the N-15 west junction and encompasses approximately 3.5 acres. The Site consists of a homestead site settled by the Sharpe family in the mid-1860s. This site retains a high degree of physical integrity and due to its early date and local significance as likely the first homestead in Stanton County, FHWA determined that this archeological site is eligible for listing in the NRHP under Criterion D. This archeological site is likely to yield information important to our past that is not available through archival resources. The Nebraska State Historic Preservation Office (NeSHPO) was contacted regarding the eligibility determination and concurred with the findings on February 26, 2020.

Type of Exception (Note: Choose the primary exception that applies from the drop-down choices below.)

23 CFR 774.13(b)

The following form was developed as a tool to assist in streamlining the Section 4(f) Exception process and to ensure that all necessary information is documented. A separate Exceptions Form is required for each Section 4(f) property for which an exception applies.

Establishing Section 4(f) Exception Relevancy

The following questions are taken directly from 23 CFR 774.13 to determine if the project is exempt from the requirement of Section 4(f) approval.

Check only the exceptions that apply for this property. (NOTE: More than one exception may apply.)

a. 23 CFR 774.13(a): Restoration, rehabilitation, or maintenance of transportation facilities that are on or eligible for the National Register when: 1. [FHWA] concludes…that such work will not adversely affect the historic qualities of the facility that caused it to be on or eligible for the National Register, and 2. the Officials with Jurisdiction (OWJ) over the Section 4(f) resource have not objected to the [FHWA] conclusion.

☐

b. 23 CFR 774.13(b): *All archeological sites qualify for the exception to Section 4(f) detailed at 23 CFR 774.13(b) unless the NDOT Professionally Qualified Staff (NDOT PQS) determines that the archeological site has important value for preservation in place and the SHPO/THPO has not objected. This information can be found on page 2 of the NDOT Section 106 Tier Review Form or through coordination with the NDOT PQS.*

☒

c. 23 CFR 774.13(c): Designations of park and recreation lands, wildlife and waterfowl refuges, and historic sites that are made, or determinations of significance that are changed, late in the development of a proposed action. [See 23 CFR 774.13(c) for more parameters.]

☐

d. 23 CFR 774.13(d): Temporary occupancies of land that are so minimal as to not constitute a use within the meaning of Section 4(f).

   The following conditions must be satisfied: 1. duration must be temporary and there should be no change in ownership of the land; 2. scope of the work must be minor; 3. there are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis; 4. the land being used must be fully restored to pre-existing conditions or better; and 5. there must be documented agreement of the OWJ(s) over the Section 4(f) resource regarding the above conditions.

   ☐

e. 23 CFR 774.13(e): Federal lands transportation facilities as defined in section 1103(a)(3) MAP-21 (23 U.S.C. 101(a)(8)).

   ☐

f. 23 CFR 774.13(f): Certain trails, paths, bikeways, and sidewalks, in the following circumstances: 1. trail-related projects funded under the Recreational Trails Program, 23 U.S.C. 206(h)(2); 2. National Historic Trails and the Continental Divide National Scenic Trail, designated under the National Trails System Act, 16 U.S.C. 1241-1251, with the exception of those trail segments that are historic sites as defined in 23 CFR 774.17; 3. trails, paths, bikeways, and sidewalks that occupy a transportation facility right-of-way without limitation to any specific location within that right-of-way, so long as the continuity of the trail, path, bikeway, or sidewalk is maintained; and 4. trails, paths, bikeways, and sidewalks that are part of the local transportation system and which function primarily for transportation.

☐

g. 23 CFR 774.13(g): Transportation enhancement projects and mitigation activities, where: 1. the use of the Section 4(f) property is solely for the purpose of preserving or enhancing an activity, feature, or attribute that qualifies the property for Section 4(f) protection; and 2. the OWJ(s) over the Section 4(f) resource agrees in writing to paragraph (g)(1) of this section.

☐

Describe project impacts, how the project qualifies for the selected Exception, completed coordination, and any other pertinent information.

Approximately 1.53 acres of the 3.5-acre Sharpe Homestead Site would be impacted as part of the Project's Preferred Alternative. Impacts on the site would include acquisition of permanent ROW and grading for the roadway and ditches. These impacts would result in the destruction of all or significant portions of the site, resulting in an adverse effect under Section 106.

FHWA has concluded that the Sharpe Homestead Site is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place. To mitigate the adverse effect, data recovery would be completed. NeSHPO concurred with the finding of "Adverse Effect" and with the proposed data recovery plan on June 22, 2023. On August 2, 2023, NeSHPO provided no objection to the determination that the Sharpe Site has minimal value for preservation in place, in response to an email sent by NDOT on behalf of FHWA.

The Sharpe Site (25ST16) has been determined to have minimal value for preservation in place and NeSHPO as OWJ has not objected. The Sharpe Homestead Site (25ST16) qualifies for Exception 23 CFR 774.13(b). No Section 4(f) use of this property will occur.

Was mitigation necessary to minimize use? If so, explain the impacts and mitigation.

In an effort to minimize impacts on the Sharpe Homestead site, NDOT has flattened ditch grades as much as possible to limit the depth of excavation for the ditch to 0.5 to 2 feet.

A Memorandum of Agreement between FHWA, the Advisory Council, NeSHPO, and NDOT will be developed and implemented prior to construction. Mitigation will include a data recovery plan. (NDOT)

Exception Documentation

Are detailed maps included, showing current and proposed right-of-way, temporary/construction easements, property boundaries, access points for pedestrians and vehicles (if applicable), and existing and planned property features?

☐ Yes ☒ No

Is concurrence from the Official(s) with Jurisdiction attached? (if required)

☒ Yes ☐ No, not required

Approval Signatures

I reviewed this checklist and all attached documentation and confirm that the above property and proposed project meet the requirements of 23 CFR 774.13 for a Section 4(f) Exception finding.

Preparer	Date
Carmen Modrcin, HDR	8/17/2023

NDOT Reviewer	Date
Courtney Ziska Digitally signed by Courtney Ziska Date: 2023.09.11 12:01:44 -05'00'	9/11/2023

NDOT Approval	Date:
Digitally signed by Jon Barber Date: 2023.09.11 14:36:56 -05'00'	

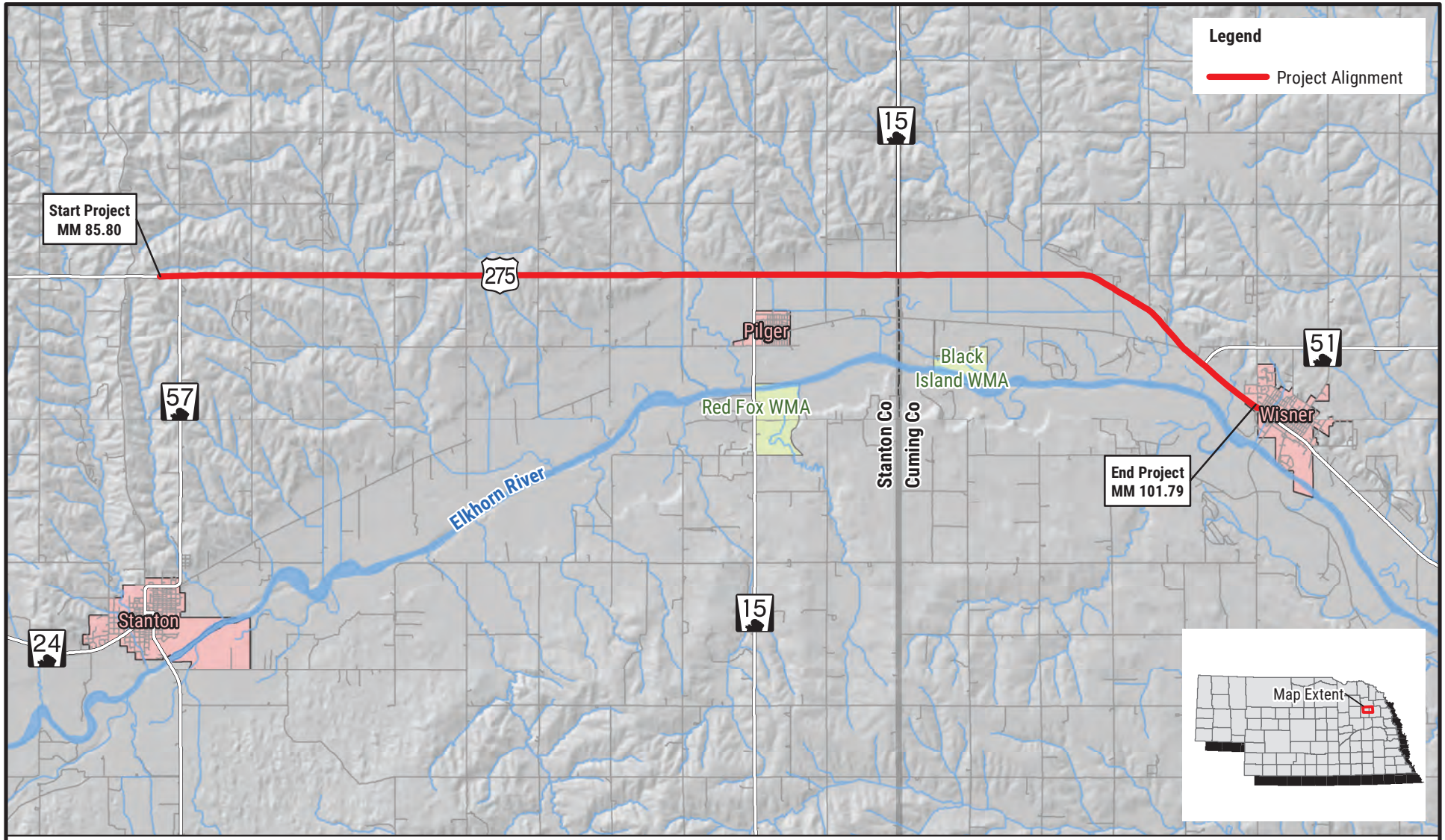
The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by NDOT pursuant to 23 USC 326 and the First Renewed Memorandum of Understanding dated September 17, 2021, and executed by FHWA and NDOT. CEs not assigned to NDOT under the CE Assignment MOU continue to be processed in accordance with the processes contained in the *Environmental Procedures Manual*, with the exception that review and approval are retained by the Federal Highway Administration.

Federal Highway Administration

Date:

Dillon Dittmer, PWS

Digitally signed by Dillon Dittmer, PWS
Date: 2023.09.21 11:40:09 -05'00'



NEBRASKA
DEPARTMENT OF TRANSPORTATION

PROJECT LOCATION

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 1

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\MAP_8X11_FIG_1_PROJECT_LOCATION_JD.MXD - USER: CMODRCIN - DATE: 12/14/2021

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Section 106 Tier III PQS Memo
Adverse Effect
Project is an EA and is not Assigned under 326 NEPA Assignment

Control No:	32319	**Project No:**	275-6(1052)	**Project Name:**	Norfolk - Wisner
Date of Project Description:			12/22/2022	**Project Location:**	Stanton and Cuming Counties

NDOT PQS Project Effects Determination:	*adverse effect*		
SHPO Concurrence:	re: Project Effects Determination	**Date:**	06/22/2023
SHPO Concurrence:	re: NR Eligibility	**Date:**	02/26/2020
NDOT PQS Signature:	Stacy Stupka	**Date:**	08/18/2023

ACHP notification of the adverse effect: FWHA notified ACHP of the adverse effect and invited their participation in consultation on 08/09/2023. ACHP declined to participate in consultation on 08/16/2023.

Consulting Party Information

Invitation to consult under Section 106 and invitation to stakeholder meeting:

Sent 08/13/2019

City of Wisner, Cuming County Historical Society, Historical Society of Stanton County Nebraska, Stanton County Museum – Pilger Location, Village of Pilger, Wisner Heritage Museum, History Nebraska (Deputy SHPO and SHPO Archeologist)

Sent 08/15/2019

Iowa Tribe of KA and NE, Omaha Tribe of NE (THPO and Chairman), Otoe-Missouria Tribe of Indians OK, Pawnee Nation of OK, Ponca Tribe of NE, Ponca Tribe of OK (THPO and Chair), Santee Sioux Nation (THPO and Chairman), Winnebago Tribe of NE, Bobalu Investments property owner, Elkhorn Valley Horizons Inc property owner, JD and Debra Alexander property owner, Raymond and Kathleen Johnson property owner

Responses:

With the exception noted below, all no response

Pawnee Nation, 09/16/2019: “does not appear to adversely affect the cultural landscape of the Pawnee Nation”

Invitation to comment upon project effects determination

Sent 06/20/2023

Arapaho Tribe of the Wind River Reservation, WY Arapaho Tribe of the Wind River Reservation, WY Cheyenne and Arapaho Tribes, OK (THPO and Chairman), Cheyenne River Sioux Tribe of the Cheyenne River Reservation SD (THPO and Chairperson), Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation MT (THPO and Chairman), Oglala Sioux Tribe (THPO and President), Omaha Tribe of NE (THPO and CTO), Otoe-Missouria Tribe of Indians OK (THPO and Chairman), Pawnee Nation of OK (THPO and President), Ponca Tribe of NE (Chairwoman, Cultural Director & THPO), Ponca Tribe of OK (THPO and Chairman), Rosebud Sioux Tribe of the Rosebud Indian Reservation SD (THPO and President), Santee Sioux Nation (Interim THPO and Chairman), Three Affiliated Tribes of the Fort Berthold Reservation ND (THPO, Chairman, Consultant), Yankton Sioux Tribe of SD (THPO and Chairman), City of Wisner, Village of Pilger, Cuming County Historical Society, Historical Society of Stanton County Nebraska, Stanton County Museum – Pilger Location, Wisner Heritage Museum, Bobalu Investments property owner, Elkhorn Valley Horizons Inc property owner.

Responses:

With the exceptions noted below, 30 day comment period expired without receiving a response.

Pawnee Nation, 07/20/2023: “does not appear to adversely affect the cultural landscape of the Pawnee Nation”

City of Wisner, 06/28/2023: “we know of no known historical sites at this time”

Public Input

Consulting parties invited to participate in consultation regarding this undertaking include the property owners of two identified historic properties, the City of Wisner, Cuming County Historical Society, Historical Society of Stanton County, Stanton County Museum (Pilger location), Village of Pilger, Wisner Heritage Museum, the Ponca Tribe of Nebraska, the Ponca Tribe of Oklahoma, Otoe-Missouria Tribe, the Omaha Tribe of Nebraska, Pawnee Nation of Oklahoma, Santee Sioux Nation, and the Winnebago Tribe of Nebraska.

FHWA and NDOT hosted a stakeholder meeting in Wisner on August 27, 2019 and the then identified consulting parties were invited to attend. NDOT Professional Qualified Staff (PQS) Stacy Stupka provided a brief overview of potential historic properties along the proposed alignment during this meeting; no concerns regarding historic properties were voiced during this meeting. A public information meeting regarding this project was held in Wisner on September 10, 2019 and again, consulting parties were invited to attend. Stupka was in attendance and provided information to the public regarding the historic properties identified. No concerns regarding historic properties have been received to date.

To date, only the Pawnee Tribe of Oklahoma has provided comments in response to invitations the stakeholder and public meetings. On September 16, 2019, Matt Reed, the Tribal Historic Preservation Officer (THPO) for the Pawnee Nation of Oklahoma responded on behalf of the Tribe indicating that the "proposed project does not appear to adversely affect the cultural landscape of the Pawnee Nation" and indicated that the project may proceed as planned. Mr. Reed did indicate that if undiscovered properties are encountered, that consultation with his office be re-initiated.

Under Nebraska's new statewide Section 106 Programmatic Agreement (February 2023), several additional tribes have been identified as consulting parties. These tribes include Arapaho Tribe of the Wind River Reservation, Wyoming; Cheyenne and Arapaho Tribes, Oklahoma, Cheyenne River Sioux Tribe, South Dakota; Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana; Oglala Sioux Tribe, Rosebud Sioux Tribe of the Rosebud Sioux Indian Reservation, South Dakota, Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota and the Yankton Sioux Tribe of South Dakota. FHWA invited these tribes to participate as consulting parties on June 20, 2023. On July 20, 2023, Matt Reed, the Tribal Historic Preservation Officer (THPO) for the Pawnee Nation of Oklahoma responded on behalf of the Tribe indicating that the "proposed project does not appear to adversely affect the cultural landscape of the Pawnee Nation" and indicated that the project may proceed as planned. Mr. Reed did indicate that if undiscovered properties are encountered, that consultation with his office be re-initiated. On June 28, 2023, the City of Wisner responded that they are not aware of any historical sites.

Area of Potential Effects (APE)

The area of potential effect (APE) for Section 106 purposes is defined at 36 CFR 800.16(d) as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. Both the archeological APE and the architectural/structural APE was defined by professionally qualified staff (PQS) at the Nebraska Highway Cultural Resources Program in consultation with NDOT PQS Stacy Stupka.

The APE includes all activities needed to construct two additional lanes on either side of the existing highway and to improve tie-ins with N-15, N-51, and various county roads. Generally, the archeological APE extends approximately 300 feet from the existing centerline of US-275. At county roads, the APE extends approximately 800 feet north and south from the existing US-275 centerline while extending approximately 150 feet east and west from the existing county road centerline (Enclosures 2 and 3). The APE widens out to include an unnamed road and County Road 'S Road' approximately .75 miles northwest of the intersection of US-275 and N-51. In this area, the APE extends approximately 160 feet west of the unnamed road and 160 feet south of County Road 'S Road', please see Enclosure 3. The vertical APE is generally up to 5 feet deep for most of the Project but does extend to 15 feet at bridges and culverts. The vertical APE does consider areas identified as "cut" sections by HDR engineering in October 2019.

The architectural/structural APE extends 500 feet beyond the current Right of Way (ROW) on either side of the proposed project and 500 feet beyond the beginning and ending points of the project. Within the City of Wisner, the APE extends to the alley east of 16th Street and considers 25 feet beyond existing ROW. This APE considers potential direct effects as well as indirect or cumulative effects.

Expanded APE, 2023
NDOT determined that proposed construction activities associated with realignment of County Road 573 were outside the archeological APE previously considered. Therefore, the archeological APE was expanded to encompass those activities.

The architectural/structural APE previously considered remains appropriate and was not expanded.

APE considered is consistent with 36 CFR 800.16(d) – (Y/N): Y

Summary of Archeological Investigations

History Nebraska (HN) Highway Archeologist Nolan Johnson, along with other History Nebraska personnel and volunteers, conducted archeological evaluations on the project between Fall 2016 and Summer 2019. A review of the History Nebraska Cultural Resources Geographic Information System (NCRGIS) archeological resources database and historic maps indicated that there are two previously identified archeological sites, 25ST15 and 25ST16, located within the APE (Enclosure 3). Following an archeological reconnaissance of the entire APE, Johnson and his crew completed intensive archeological investigations of 40 survey areas. The survey areas were selected based upon topography and Johnson's professional knowledge of the area and were investigated by pedestrian survey using 10 – 20 meter survey

This undertaking has been reviewed under the programmatic agreement entitled Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Transportation to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska (February 2023), as amended, and meets the requirements to be considered a Tier III Project.

transects. As a result of these investigations, four new archeological sites, 25ST48, 25ST49, 25ST50 and 25ST51, were identified. A discussion of these archeological sites follows below.

25ST15
A prehistoric site originally recorded in 1991, this site has since been destroyed by land leveling activities unrelated to this undertaking. Johnson completed several intensive pedestrian surveys within the recorded site boundary and surrounding area. Investigators found one stone flake some distance to the east of the recorded site. No evidence of features was identified and the soil at the ground surface is now yellow subsoil. The single flake is an isolated find and is out of context. The site has lost all integrity and is not recommended eligible for listing in the National Register of Historic Places (NRHP).

25ST16, Sharpe Homestead site
This previously recorded archeological site is a homestead site settled by the Sharpe family in the mid-1860s. Homestead documents indicate that Charles Sharpe submitted a homestead application on November 21, 1865, and began occupying this site in March of 1866. It is considered to be the first homestead in Stanton County. This site was investigated by HN archeologists for an unrelated project in 2012. At this time, archeologists noted scatters of Euro-American artifacts and several visible depressions consistent with that of a former farmstead (Bozell, et al.). The farmstead was occupied into the 1980's.

During the investigations completed by Johnson, a large scatter of Euro-American artifacts, including considerable amounts of building debris, were observed on the ground surface. Johnson noted that though a larger portion of the site has now been plowed, four depressions remain visible. To gather more information regarding subsurface features at this site, HN contracted with the Midwest Archeological Center, National Park Service who investigated this site using various non-invasive geophysical instruments (Enclosure 4). Completed in June 2019, these geophysical investigations revealed numerous anomalies associated with non-extant structures, as well as utility trenches and possible fence lines.

This site retains a high degree of physical integrity and due to its early date and local significance as the first homestead in Stanton County it is recommended eligible for listing in the NRHP under Criterion D. This site is likely to yield information important to our past that is not available through archival resources.

25ST48, 25ST49, 25ST50 and 25ST51
These four archeological sites are Euro-American scatters of artifacts consisting of ceramics, glassware, and metal fragments. Associated with non-extant farmsteads dating from late 19th to mid-20th centuries, these sites are not recommended eligible for inclusion in the NRHP because they lack physical integrity and lack of information potential that could contribute to our knowledge and understanding of history beyond that already available from archival records.

There is one significant archeological property, the Sharpe Homestead site (25ST16) in the APE.

Geomorphological Investigations
In collaboration with NDOT, History Nebraska Highway Archeologists have facilitated plans to complete geomorphological investigations to assess the potential for deeply buried archeological sites within the project corridor (Enclosure 5). Unfortunately, property owners have not granted access to complete these investigations. These investigations will be completed after Right of Way has been acquired.

Expanded APE, Archeological Investigations - 2023
No architectural/structural historic properties are located within the expanded APE.

Review of the Nebraska State Historical Society Cultural Resources Geographic Information System (NCRGIS) archeological resources database and historic maps indicated that there are no previously recorded archeological sites located within the expanded APE or in the immediate vicinity of the expanded APE.

Highway Archeologist Nolan Johnson completed intensive pedestrian survey of the expanded APE on May 24, 2023 using transects spaced at 20 meters apart, walking in a zig zag pattern along the transect. The expanded APE is planted in corn, and ground surface visibility ranged between 25 to 50%. No archeological sites were identified, and Johnson notes that the expanded APE has been previously disturbed by activities unrelated to this proposed transportation project, including straightening of Humbug Creek and extensive agricultural modifications.

There are no archeological historic properties within the 2023 expanded APE.

There is one archeological historic property within the APE, 25ST16, the Sharpe Homestead site.

Summary of Architectural / Structural Investigations

This undertaking has been reviewed under the programmatic agreement entitled Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Transportation to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska (February 2023), as amended, and meets the requirements to be considered a Tier III Project.

This project was investigated by History Nebraska Preservation Associate Megan Hilger using the Nebraska State Historic Preservation Office (SHPO) inventory and site files, *Nebraska Historic Building Survey Reconnaissance Survey Final Report of Stanton County, Nebraska* (1988), *Cuming County Nebraska Historic Building Survey* (2000), the Stanton and Cuming County Tax Assessor records, historic maps, and other primary and secondary sources. Background research indicates there were three properties within the APE that have been previously recommended eligible for listing in the NRHP, ST00-004, ST00-018 and ST00-028.

Hilger identified and evaluated all properties identified as meeting the SHPO Historic Resources Survey Manual criteria for survey and guidelines set forth in the 1991 National Park Service Bulletin 15: *How to Apply the National Register Criteria for Evaluation* (NPS Bulletin 15). These criteria include, but are not limited to, properties that are 40 years old or older; and are in their original location; and which possess sufficient physical integrity to convey NRHP significance. All surveyed properties were evaluated to determine NRHP eligibility.

The investigation resulted in the identification and NRHP evaluation of 52 properties within the APE. Of these properties, 51 properties are not recommended eligible for listing in the NRHP due to a lack of integrity and/or a lack of NRHP significance. Included within these 51 properties are five previously surveyed properties that are now non-extant, ST00-004, ST00-018, ST00-027, ST00-028 and ST00-121. One property, the Pilger Rest Area (Map ID 19) is recommended eligible for listing in the NRHP (Enclosure 6).

The bridges within the APE, S27508860, S27509309, S27509504, S27509508, S27509561, S27509644, S27509803, and S27510009 are not identified as eligible structures in the Nebraska inventories of bridges before 1947 or of those from 1947 to 1965. These inventories were a joint effort between the Nebraska Department of Roads and the Nebraska State Historic Preservation Office and evaluated the NRHP eligibility of all bridges in the state. These bridges are not listed in the inventories as eligible for inclusion on the NRHP because they do not possess the necessary engineering/design significance to be considered eligible. These bridges are also not on the list of structures excluded from the November 2012 Advisory Council on Historic Preservation Program Comment issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges.

Pilger Rest Area (Map ID 19)
This former NDOT rest area is located approximately three miles west of Pilger on the north side of US-275 (Enclosure 7). Constructed in 1969, the rest area features a mid-century one-story red brick building with a flat concrete roof, wide brick columns and glass block windows centered among curvilinear concrete walkways. Open air picnic shelters line the curvilinear walkways, echoing the main building with flat concrete roofs, brick walls, concrete table and benches, concrete floor, and stationary charcoal grill. The site also features a curvilinear drive, a parking lot and a windbreak.

Using funding obtained under the Highway Beautification Act of 1965, this rest area is one of four rest areas that NDOT constructed which were located away from the Interstate 80 system (Lincoln Journal Star, June 05, 1969). Commonly associated with Lady Bird Johnson, the Highway Beautification Act encouraged clean up and beautification of the nation's highways. NDOT owned and operated the Pilger Rest Area until the mid-2000s. It is now in private ownership.

The Pilger Rest Area is recommended NRHP eligible at the local level under Criterion A for a significant association with Transportation and under Criterion C for Architecture and Landscape Design. This property retains all aspects of physical integrity. The boundary of this historic property encompasses 10.21 acres and corresponds to the parcel historically associated with the property, described as Section 30 Township 24N Range 3E PT SW & PT SW SE 30-24-3 Pilger Precinct. For the purposes of this undertaking, the building, picnic structures, drive, parking lot, walkways and the northern windbreak are contributing elements to the property, as they are a cohesive design. The wooden windmill and split wood fence running the length of the property line are recommended as non-contributing elements to the property.

Expanded APE, Architectural Investigations - 2023
No architectural/structural historic properties are located within the expanded APE.

There is one architectural historic property within the APE, the Pilger Rest Area.

Historic Properties Identified Within APE:

Archeological Site	ROW Needed? (Specify Type & Amount)	Architectural Property	ROW Needed? (Specify Type & Amount)
25ST16, Sharpe Homestead Site	ROW needed, unknown amount and type; archeological site will be adversely affected	Former Pilger Rest Area	none

This undertaking has been reviewed under the programmatic agreement entitled Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Transportation to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska (February 2023), as amended, and meets the requirements to be considered a Tier III Project.

Sensitive Areas:

	MM - MM
Former Pilger Rest Area	US-275, north side MM 90.43 – MM 90.59

Commitments:

1) *A Sensitive Area has been identified on the north side of existing US-275 from MM 90.43 – 90.59. This Sensitive Area shall be indicated on project plans. (NDOT Design)*
2) *A Sensitive Area has been identified on the north side of existing US-275 from MM 90.43 – 90.59. No grading or project activities, including but not limited to, working, staging, borrowing, stockpiling, or storing material and/or equipment, shall occur within the boundary of the Sensitive Area(s). (Contractor)*
3) *A Memorandum of Agreement (MOA) shall be drafted and executed to implement the Data Recovery Plan approved by FHWA and concurred upon by SHPO to mitigate the adverse effect. (NDOT Environmental)*
4) *A project-level Programmatic Agreement (PA) shall be drafted to ensure geoarcheological investigations are completed. (NDOT Environmental)*

Provide narrative supporting no adverse effect finding, or detail efforts to avoid an adverse effect finding:

The Widen South + Shift Alternative would expand the existing two-lane highway to a four-lane expressway by constructing the new lanes directly south of existing US-275, with a slight shift south between 575th Avenue in Stanton County and 2nd Road in Cuming County as described above and in Enclosure, Figure 4. A 3R strategy would also be applied to the existing two lanes of US-275. In addition to mainline US-275 construction, the Widen South + Shift Alternative would improve various intersections along the route, including at the N-15 intersection with US-275 north of Pilger, which includes construction of an off-set right-turn lane.

Construction of the new eastbound travel lanes, off-set right-turn lane, shoulders and median would result in a new south edge of pavement located approximately 80 to 90 feet south of the existing pavement for the length of the Sharpe Homestead site adjacent to US-275. Construction would require removal of approximately 1 foot of topsoil and then fill and pavement would be placed on top of the Sharpe Homestead site. A minor amount of grading would be required at the toe of the fill to re-establish the ditch to convey roadway drainage to the ditch along the west side of N-15. NDOT evaluated several potential options to minimize impacts to the Sharpe Homestead site.

Minimization considered but not incorporated:

1. **Narrowing the Median:** The proposed median on rural sections of US-275 is a minimum of 54 feet wide. NDOT considered narrowing the median on the Widen South alternative to reduce impacts on the Sharpe Homestead site but determined that narrowing the median for a short section through the N-15 intersection is not advisable due to violation of driver expectancy and potential safety issues associated with adding curvature near the N-15 intersection.

2. **Right Turn Lane:** The proposed right-turn lane would be offset 15 to 20 feet from the driving lane along the Sharpe Homestead site to improve intersection sight distance. NDOT considered eliminating the offset but determined that the offset is appropriate to accommodate sight lines for turning and crossing traffic, providing a safer intersection.

Minimization incorporated into the design

1. **Earthwork:** The ditch along an expressway is typically a minimum of 2.5 feet deep, measured from the edge of shoulder. In an effort to minimize impacts on the Sharpe Homestead site, NDOT has flattened ditch grades as much as possible to limit the depth of excavation for the ditch to 0.5 to 2 feet.

   A typical ditch design along the Sharpe Homestead site would have maintained the existing drainage pattern by conveying runoff from west to east in a new ditch with a minimum 1-foot-deep excavation and a minimum 0.5% slope. To minimize impacts on the site, NDOT has modified the drainage pattern slightly so that US-275 runoff along the site instead flows east in a special ditch with a minimum excavation depth of 0.2 feet and minimum ditch slope of 0.2%. The proposed special ditch limits the deepest US-275 eastbound ditch excavation to less than 2 feet along the Sharpe Homestead site.

Despite these minimization efforts, FHWA has determined that the Sharpe Homestead site would be adversely affected by construction of the preferred alternative through destruction of all or part of the significant archeological site.

This undertaking has been reviewed under the programmatic agreement entitled Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Transportation to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska (February 2023), as amended, and meets the requirements to be considered a Tier III Project.

Summarize mitigation:
Archeological Data Recovery Plan concurred upon by SHPO on 06/23/2023, see Section 106 Project Effects Report (05/30/2023).

Section 4(f): significant archeological site(s) within APE warranting preservation in place:

Archeological Site	Comment

This undertaking has been reviewed under the programmatic agreement entitled Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Transportation to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska (February 2023), as amended, and meets the requirements to be considered a Tier III Project.

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA DIVISION

100 Centennial Mall North, Rm 220
Lincoln, Nebraska 68508
402-742-8460
402-742-8480

June 20, 2023

Betty Gillespie
Interim Deputy State Historic Preservation Officer
Nebraska State Historical Society
Box 82554
Lincoln, NE 68508

Project Number 275-6(1052)
CN 32319
US-275, Norfolk – Wisner
Stanton and Cuming Counties
HP#2002-176-01
Consultation RE: Project Effects Determination

Dear Ms. Gillespie:

The Nebraska Department of Transportation (NDOT) proposes to construct the project referenced (the Project) above using funds from the Federal Highway Administration (FHWA). This project is located in Stanton and Cuming Counties on US-275 (Enclosure, Figure 1). Due to FHWA involvement, the proposed project is a federal undertaking that must be reviewed under Section 106 of the National Historic Preservation Act, as amended (36 CFR Part 800) requiring federal agencies to consider and consult about the effects of proposed projects on historic properties. FHWA is the lead federal agency. Please see Enclosure, Appendix A for a list of consulting parties.

An Environmental Assessment (EA) is currently being prepared, and the results of Section 106 consultation will be included in the EA document. As an EA, this project has **not** been assigned to NDOT pursuant to 23 U.S.C. §326, commonly referred to as "CE Assignment". FHWA is the lead federal agency.

FHWA completed consultation with the State Historic Preservation Office (SHPO) regarding National Register of Historic Places (NRHP) eligibility and other consulting parties in 2020. SHPO concurred upon a FHWA determination that there are two historic properties, the Sharpe Homestead site (25ST16) and the former Pilger Rest Area, present within the area of potential effects (APE) (Enclosure, Appendix B). In 2020, project design had not progressed to the point where a project effects determination could be made. Project planning has progressed and FHWA is reinitiating consultation with SHPO and consulting parties.

Project Description
This project would improve approximately 16 miles of US-275 located in Stanton and Cuming Counties. The Project begins near mile marker (MM) 85.80 and extends east to MM 101.79. The improvements would expand the existing highway to a four-lane expressway by constructing a new, parallel, two-lane roadway (called "2+2 Construction" by NDOT) on one side of the existing US-275. In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 at two locations and Nebraska Highway 51 northwest of Wisner, along with various county roads. Drainage structures would either be extended, replaced, or used in place. A Restoration, Rehabilitation, and Resurfacing (3R) strategy may also be applied to the existing two lanes. The Project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Temporary surfacing may be required to accommodate phased construction. No detour is required.

The preferred alternative being carried forward in the draft EA is the Widen South + Shift Alternative which includes adding two new lanes on the south side of the existing US-275. Between 575th Avenue in

Stanton County and 2nd Road in Cuming County, the eastbound lanes would shift approximately 150 feet to the south to avoid an intermittent channel feature in the south ditch of the existing roadway.

2023 Section 106 Supplemental Evaluation
Since consultation completed in 2020, NDOT determined that proposed construction activities associated with realignment of County Road 573 are outside the archeological APE previously considered. Therefore, the archeological APE has be expanded to encompass these activities (Enclosure, Appendix C). The architectural/structural APE previously considered remains appropriate and was not expanded. No architectural/structural historic properties are located within the expanded APE.

Review of the Nebraska State Historical Society Cultural Resources Geographic Information System (NCRGIS) archeological resources database and historic maps indicated that there are no previously recorded archeological sites located within the expanded APE or in the immediate vicinity of the expanded APE.

Highway Archeologist Nolan Johnson completed intensive pedestrian survey of the expanded APE on May 24, 2023 using transects spaced at 20 meters apart, walking in a zig zag pattern along the transect. The expanded APE is planted in corn, and ground surface visibility ranged between 25 to 50%. No archeological sites were identified, and Johnson notes that the expanded APE has been previously disturbed by activities unrelated to this proposed transportation project, including straightening of Humbug Creek and extensive agricultural modifications.

There are no historic properties within the 2023 expanded APE.

Historic Properties
Two historic properties have been identified within the area of potential effect (APE), 25ST16, Sharpe Homestead archeological site and the former Pilger Rest Area.

Pilger Rest Area
The Pilger Rest Area is a former NDOT rest area is located approximately three miles west of Pilger on the north side of US-275 (Enclosure, Figure 2). Constructed in 1969, the rest area features a mid-century one-story red brick building with a flat concrete roof, wide brick columns and glass block windows centered among curvilinear concrete walkways. Open air picnic shelters line the curvilinear walkways, echoing the main building with flat concrete roofs, brick walls, concrete table and benches, concrete floor, and stationary charcoal grill. The site also features a curvilinear drive, a parking lot and a windbreak.

Using funding obtained under the Highway Beautification Act of 1965, this rest area is one of four rest areas that NDOT constructed which were located away from the Interstate 80 system (Lincoln Journal Star, June 05, 1969). Commonly associated with Lady Bird Johnson, the Highway Beautification Act encouraged clean up and beautification of the nation's highways. NDOT owned and operated the Pilger Rest Area until the mid-2000s. It is now in private ownership.

FHWA determined that the Pilger Rest Area is NRHP eligible at the local level under Criterion A for a significant association with Transportation and under Criterion C for Architecture and Landscape Design. This property retains all aspects of physical integrity.

Sharpe Homestead archeological site (25ST16)
Located approximately 1/2 mile north of Pilger (Enclosure, Figure 3), the Sharpe Homestead archeological site encompasses approximately 3.5 acres and consists of a homestead site settled by the Sharpe family in the mid-1860s. This site retains a high degree of physical integrity and due to its early date and local significance as likely the first homestead in Stanton County, FHWA determined that this archeological site is eligible for listing in the NRHP under Criterion D. This archeological site is likely to yield information important to our past that is not available through archival resources.

SHPO concurred upon these NRHP determinations in 2020 (Enclosure, Appendix B).

Consulting Party and Public Participation
Consulting parties invited to participate in consultation regarding this undertaking include the property owners of two identified historic properties, the City of Wisner, Cuming County Historical Society, Historical Society of Stanton County, Stanton County Museum (Pilger location), Village of Pilger, Wisner Heritage Museum, the Ponca Tribe of Nebraska, the Ponca Tribe of Oklahoma, Otoe-Missouria Tribe, the Omaha Tribe of Nebraska, Pawnee Nation of Oklahoma, Santee Sioux Nation, and the Winnebago Tribe of Nebraska.

FHWA and NDOT hosted a stakeholder meeting in Wisner on August 27, 2019 and the then identified consulting parties were invited to attend. NDOT Professional Qualified Staff (PQS) Stacy Stupka provided a brief overview of potential historic properties along the proposed alignment during this meeting; no concerns regarding historic properties were voiced during this meeting. A public information meeting regarding this project was held in Wisner on September 10, 2019 and again, consulting parties were invited to attend. Stupka was in attendance and provided information to the public regarding the historic properties identified. No concerns regarding historic properties have been received to date.

To date, only the Pawnee Tribe of Oklahoma has provided comments in response to invitations the stakeholder and public meetings. On September 16, 2019, Matt Reed, the Tribal Historic Preservation Officer (THPO) for the Pawnee Nation of Oklahoma responded on behalf of the Tribe indicating that the "proposed project does not appear to adversely affect the cultural landscape of the Pawnee Nation" and indicated that the project may proceed as planned. Mr. Reed did indicate that if undiscovered properties are encountered, that consultation with his office be re-initiated (Appendix B).

Under the statewide Section 106 Programmatic Agreement signed in February 2023, several additional tribes have been identified as consulting parties. These tribes include Arapaho Tribe of the Wind River Reservation, Wyoming; Cheyenne and Arapaho Tribes, Oklahoma, Cheyenne River Sioux Tribe, South Dakota; Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana; Oglala Sioux Tribe, Rosebud Sioux Tribe of the Rosebud Sioux Indian Reservation, South Dakota, Three Affiliated Tribes of the Fort Berthold Reservation, North Dakota and the Yankton Sioux Tribe of South Dakota.

Assessing Project Effects
NDOT PQS Stacy Stupka assessed the potential for adverse effects by utilizing the adverse effects methodology identified at 36 CFR Part 800.5, and her detailed assessment is included and an enclosure to this letter.

FHWA has determined that the preferred alternative avoids a direct effect to the former Pilger Rest Area (Enclosure, Figure 5) depicts the preliminary impact area adjacent to the former Pilger Rest Area as identified by project designers. The additional lanes of traffic are designed to alleviate traffic on an already busy two lane highway. While the conversion of this two lane highway to a four lane highway will increase the average daily traffic count in the US-275 corridor, the increase in traffic will not affect this historic property. Constructed as a transportation related resource, those characteristics that cause this property to be a good candidate for listing in the NRHP will not be altered. This historic property will not be affected by the project as proposed.

When considering the preferred alternative, FHWA has determined that the Widen South + Shift Alternative would adversely affect the Sharpe Homestead archeological site (25ST16) (Enclosure, Figure 6). Per 36 CFR Part 800.6, NDOT developed and evaluated alternatives or modifications to the undertaking that could avoid, minimize or mitigate the adverse effect on the historic property, and these are discussed below.

Avoidance, Minimization and Mitigation of the Adverse Effect
The Widen South + Shift Alternative would expand the existing two-lane highway to a four-lane expressway by constructing the new lanes directly south of existing US-275, with a slight shift south

between 575th Avenue in Stanton County and 2nd Road in Cuming County as described above and in Enclosure, Figure 4. A 3R strategy would also be applied to the existing two lanes of US-275. In addition to mainline US-275 construction, the Widen South + Shift Alternative would improve various intersections along the route, including at the N-15 intersection with US-275 north of Pilger, which includes construction of an off-set right-turn lane.

Construction of the new eastbound travel lanes, off-set right-turn lane, shoulders and median would result in a new south edge of pavement located approximately 80 to 90 feet south of the existing pavement for the length of the Sharpe Homestead site adjacent to US-275. Construction would require removal of approximately 1 foot of topsoil and then fill and pavement would be placed on top of the Sharpe Homestead site. A minor amount of grading would be required at the toe of the fill to re-establish the ditch to convey roadway drainage to the ditch along the west side of N-15. NDOT evaluated several potential options to minimize impacts to the Sharpe Homestead site.

Minimization considered but not incorporated:

1. **Narrowing the Median:** The proposed median on rural sections of US-275 is a minimum of 54 feet wide. NDOT considered narrowing the median on the Widen South alternative to reduce impacts on the Sharpe Homestead site but determined that narrowing the median for a short section through the N-15 intersection is not advisable due to violation of driver expectancy and potential safety issues associated with adding curvature near the N-15 intersection.

2. **Right Turn Lane:** The proposed right-turn lane would be offset 15 to 20 feet from the driving lane along the Sharpe Homestead site to improve intersection sight distance. NDOT considered eliminating the offset but determined that the offset is appropriate to accommodate sight lines for turning and crossing traffic, providing a safer intersection.

Minimization incorporated into the design

1. **Earthwork:** The ditch along an expressway is typically a minimum of 2.5 feet deep, measured from the edge of shoulder. In an effort to minimize impacts on the Sharpe Homestead site, NDOT has flattened ditch grades as much as possible to limit the depth of excavation for the ditch to 0.5 to 2 feet.

   A typical ditch design along the Sharpe Homestead site would have maintained the existing drainage pattern by conveying runoff from west to east in a new ditch with a minimum 1-foot-deep excavation and a minimum 0.5% slope. To minimize impacts on the site, NDOT has modified the drainage pattern slightly so that US-275 runoff along the site instead flows east in a special ditch with a minimum excavation depth of 0.2 feet and minimum ditch slope of 0.2%. The proposed special ditch limits the deepest US-275 eastbound ditch excavation to less than 2 feet along the Sharpe Homestead site.

Despite these minimization efforts, FHWA has determined that the Sharpe Homestead site would be adversely affected by construction of the preferred alternative through destruction of all or part of the significant archeological site.

Therefore, based upon information gather during archeological site testing activities, FHWA approves the data recovery plan presented as (Enclosure, Appendix D).

FHWA has determined that the Sharpe Homestead site will be adversely affected and attempts to avoid or minimize the adverse effect will not resolve the adverse effect. FHWA requests NESHPO concurrence with FHWA's determination that no historic properties are present within the expanded APE (Enclosure, Appendix C), with the *adverse effect* determination, as well as upon the enclosed data recovery plan as mitigation for the adverse effect this undertaking would have on the historic property, the Sharpe Homestead archeological site (25ST16). FHWA will notify the Advisory Council on Historic Preservation of the adverse effect.

Upon receiving SHPO concurrence, FHWA will further engage SHPO in consultation regarding the development of a Memorandum of Agreement (MOA) using the enclosed data recovery plan as mitigation for the adverse effect.
If you have any questions regarding this information do not hesitate to contact me at your convenience.

Sincerely,

Dillon Dittmer
Environmental Protection Specialist
402-742-8465
Dillon.dittmer@dot.gov

CONCUR:

Betty Gillespie, Interim Deputy State Historic Preservation Officer 6/22/2023 Date

ENCLOSURE

From:	Swigart, John
To:	Ziska, Courtney
Cc:	Dittmer, Dillon (FHWA; Barber, Jon; Stupka, Stacy; Trenne, Ben
Subject:	RE: HP#2002-176-01, NDOT Project 275-6(1052), CN 32319, US-275 Norfolk - Wisner: Applying Section 4(f) Exception (b) to the Sharpe Homestead Site
Date:	Wednesday, August 2, 2023 1:45:51 PM

Hello Courtney,

Thank you for informing our office of your finding. The Nebraska State Historic Preservation Office agrees with your application of the archeological site 4(f) exception the Sharpe Homestead Site (25ST16), and that the site has minimal value for preservation in place. Please let me know if you would like additional documentation from our office on this matter.

Thanks again,

John

John Swigart

Preservation Archeologist

History NEBRASKA

-

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Lincoln, Nebraska 68508-1651

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Preserving the Past. Building the Future

From: Ziska, Courtney <Courtney.Ziska@nebraska.gov>
Sent: Wednesday, July 26, 2023 2:56 PM
To: Gillespie, Betty <Betty.Gillespie@nebraska.gov>
Cc: Dittmer, Dillon (FHWA) <dillon.dittmer@dot.gov>; Barber, Jon <Jon.Barber@nebraska.gov>; Stupka, Stacy <stacy.stupka@nebraska.gov>; Trenne, Ben <Ben.Trenne@nebraska.gov>
Subject: HP#2002-176-01, NDOT Project 275-6(1052), CN 32319, US-275 Norfolk - Wisner: Applying Section 4(f) Exception (b) to the Sharpe Homestead Site

Hi Betty,

On June 20, 2023, FHWA submitted a Project Effects Determination letter to your office regarding NDOT Project 275-6(1052), CN 32319, US-275 Norfolk - Wisner. On June 22, 2023 you concurred with FHWA's determination that the project would adversely affect the Sharpe Homestead archeological site (25ST16) as well as with the data recovery plan proposed to mitigate the adverse effect (NeSHPO Concurrence HP #2002-176-01, see attached).

Since this project involves an action by the Federal Highway Administration (FHWA), it comes under the purview of Section 4(f) of the Department of Transportation Act regarding the use of public recreational facilities and historic facilities for transportation purposes. As a property eligible for inclusion on the National Register of Historic Places (NRHP), the Sharpe Homestead site qualifies for protection under Section 4(f). However, Section 4(f) does not apply to archeological sites if FHWA determines, after consultation with SHPO, that the archeological resource is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place, and the SHPO does not object to this determination (23 CFR 774.13(b)).

We had intended to address the criteria for this Section 4(f) exception within the June 2023 Project Effects letter, and it is implied through our determination and proposed data recovery plan. However, we realize that we did not explicitly state that the Sharpe Homestead site does not warrant preservation in place and, by omission, did not provide you adequate opportunity to object to this finding.

To address this, we are reaching out to more clearly inform you of our intent to apply Section 4(f) exception 23 CFR 774.13 (b) to the Sharpe Homestead archeological site. We find that as an archeological site eligible for the NRHP under Criterion D: Information Potential, the Sharpe Homestead site is important chiefly because of what can be learned through data recovery about the pre-statehood/early settlement period in Nebraska and has minimal value for preservation in place. Provided you do not object to this finding, impacts to the Sharpe Homestead site would not constitute a "use" within the meaning of Section 4(f).

Please let us know if you have any questions about this. Thank you in advance.

Courtney Ziska
NEPA Specialist
courtney.ziska@nebraska.gov
office: (402) 479-4890

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Appendix H

Air Quality

Mobile Source Air Toxics Level Determination

This memo is to justify the Qualitative Project-Level MSAT Analysis for CN: 32319 Norfolk-Wisner.

This project would expand the existing two-lane highway to a four-lane expressway by constructing a new, parallel two-lane roadway (called 2+2 Construction by NDOT) on one side of the existing US-275. In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 (N-15) at two locations and Nebraska Highway 51 (N-51) northwest of Wisner, along with various county roads.

The FHWA developed a tiered approach with three categories for analyzing MSAT in NEPA documents, depending on specific project circumstances:

- MSAT I-No analysis for projects with no potential for meaningful MSAT effects.
- MSAT II-Qualitative analysis for projects with low potential MSAT effects.
- MSAT III-Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects.

The criteria for justification of a MSAT II Qualitative Memo are found below.

For each alternative in this EA, the amount of mobile source air toxics (MSAT) emitted would be proportional to the vehicle miles traveled (VMT), assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for each of the Build Alternatives is slightly higher than that for the No Build Alternative because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions for the preferred action alternative along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to the Environmental Protection Agency's (EPA) MOVES2014 model, emissions of all priority MSAT decrease as speed increases. Because the estimated VMT under each of the Alternatives are nearly the same, it is expected there would be no appreciable difference in overall MSAT emissions among the various alternatives. The annual average daily traffic (AADT) for this project through 2045 is no more than 9000 in any given year; well below the threshold of 140,000-150,000 AADT that would require a MSAT III memo.

Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 90 percent between 2010 and 2050 (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016). Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

Bedea, Aaron

Digitally signed by Bedea, Aaron
Date: 2023.01.19 13:03:09 -06'00'

Hazmat, Noise and Air PQS

Nebraska Department of Transportation

Appendix I

Noise

Norfolk to Wisner

NOISE ANALYSIS REPORT

PROJECT NO. S-275-6(1052)
C.N. 32319

Prepared by the Nebraska Department of Transportation

December 2019

-Reevaluated and Approved November 2022

Bedea, Aaron

Digitally signed by Bedea, Aaron
Date: 2022.12.02 08:50:00 -06'00'

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ATTACHMENTS

Noise Receiver Location Map

PROJECT BACKGROUND

This report documents the noise analysis completed in support of the Nebraska Department of Transportation (NDOT) project Norfolk to Wisner. This project would improve approximately 15.5 miles of US-275, located in Stanton and Cuming Counties. The Project begins approximately 0.25 miles east of the junction of US-275 and N-57. It extends to 0.25 mile southeast of the west corporate boundary of Wisner, and ties into the existing US-275 four-lane roadway within Wisner. The improvements would expand the existing highway to a four-lane expressway by constructing a new, parallel, two-lane roadway (called "2+2 Construction" by NDOT). After an alternatives analysis considering the impacts to environmental resources, public input and design considerations, the preferred alternative consists of construction of the new two-lane roadway to the south of the existing highway. The noise analysis was completed for the preferred alternative. The purpose of this noise report is to:

- Provide a discussion of the fundamentals of noise and traffic noise analysis
- Evaluate existing traffic noise levels within the corridor
- Predict the future traffic noise levels (2044) of sensitive receivers. Sensitive receivers are adjacent to the studied corridor (such as houses, businesses, parks and schools) that might be affected by traffic noise
- Quantify the number of properties that are predicted to experience roadway noise levels that approach or exceed the noise abatement criteria (NAC). These properties are referred to as impacted receivers.
- Evaluate mitigation measures for noise sensitive receivers adjacent to construction that approach or exceed the NAC.

The NDOT Noise Analysis and Abatement Policy outlines the requirements for noise analysis and preparation of a noise study. The policy can be found on the NDOT website at the following link: https://dot.nebraska.gov/projects/environment/noise-air/

NATURE OF NOISE

Noise may be defined as unwanted sound. Sound is the sensation produced when the movement of an object creates vibrations, or waves, that pass through the ears. The relative impact of sound waves depends on the amount of pressure they generate. The unit of measure for sound pressure is the decibel (dB). Decibels are based on a logarithmic scale because the range of sound pressures is too great to be accommodated on a linear scale. The range of sound pressure levels most frequently encountered in evaluating traffic-generated noise on highways is 50 to 95 dB.

The measured noise level from a given source does not necessarily correspond to our perception of "loudness." For instance, a three (3) decibel increase from a noise source represents a doubling of the noise level (as measured in sound pressure) on the logarithmic scale. However, this change is barely perceptible for human beings. Furthermore, an increase in 10 decibels from a noise source is a tenfold increase in noise pressure, but is only perceived as a doubling in the loudness by the human ear.

For highway traffic noise analysis, the Federal Highway Administration (FHWA) has specified that noise be predicted and evaluated in decibels weighted with the A-level frequency response; this unit of measure is referred to as dB(A). Measurements in dB(A) incorporate a human's reduced sensitivity to both low frequency and very high frequency noises to better correlate with our subjective impression of loudness.

Table 1 displays noise levels common to everyday activities.

TABLE 1. Common Exterior Noise Levels (dBA)

Common Noise Levels	Noise Level (dBA)
Rock Band at 16 ft	110
Jet Flyover at 985 ft	105
Gas Lawn Mower at 3 ft	95
Diesel Truck at 50 ft	85
Same Truck at 110 ft	80
Gas Lawn Mower at 100 ft	70
Normal Speech at 3 ft	65
Birds Chirping	50
Leaves Rustling	40
Very Quiet Soft Whisper	30
Threshold of Hearing	0

23 CFR Part 772 Standards

23 Code of Federal Regulations (CFR) Part 772 was written by the Federal Highway Administration (FHWA). Its purpose is to provide procedures for noise studies, and noise abatement measures to help protect the public health and welfare, to supply noise abatement criteria, and to establish requirements for traffic noise information to be given to those officials who have planning and zoning authority in the project area. 23 CFR 772 contains noise abatement criteria, which are based on the equivalent level (L_{eq}), noise descriptor. L_{eq} (h) is the equivalent steady state sound level, which during the hour under consideration contains the same acoustic energy as the time-varying traffic sound level during that same hour. The following table contains the upper limits of hourly L_{eq} desirable noise levels that are part of the noise abatement criteria established by 23 CFR 772. Any noise levels that approach or exceed these criteria would not be desirable and would be referred to as a noise impact.

TABLE 2. Noise Abatement Criteria, Hourly A-Weighted Sound Level

Activity Category	Activity[1] Leq(h)	Activity Description
A	57 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve and important public need where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[2]	67 (exterior)	Residential
C[2]	67 (exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structure, radio stations, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structure, radio studios, recording studios, schools, television studios.
E[2]	72 (exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D, or F.
F	-----	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities, (water resources, water treatment, electrical), and warehousing.
G	-----	Undeveloped lands

[1]The Leq(h) Activity Criteria values are for impacted determination only, and are not design standards for noise abatement.

[2]Includes undeveloped lands permitted for this activity category.

The selection and analysis of all individual noise sensitive receptors are based on the data included in **Table 2**. Most areas come under Activity Category "B", "C" and "E". Activity "E" typically consists of commercial land use or business offices. Category "F" and Category "G" sites are not considered noise sensitive areas. Primary consideration is to be given to exterior areas; therefore, all noise levels referred to in this study are exterior noise levels unless otherwise stated. Activity Category "D" is not normally used since interior noise depends on the type of windows, doors or wall structures of each building; however, sometimes a specific receptor might warrant its use. Category "A" sites are extremely rare as only a few exist in the entire nation. No category "A" land use exists within the limits of the proposed project.

NOISE PREDICTION METHOD

Traffic noise levels associated with existing conditions, no-build scenario and build scenario were predicted for this noise study:

> ***The Existing Conditions Scenario*** assumed current (2018) traffic volumes, vehicle mix (broken down by autos, medium trucks and heavy trucks) and roadway characteristics.
>
> ***The 2044 No-Build Scenario*** assumed that future (2044) forecasted traffic would be traveling on the existing alignment without a physical change to the road.
>
> ***The 2044 Build Scenario*** analyzed traffic noise levels on the improved US-275 (4-lane expressway) including 2044 traffic volumes.

Traffic noise levels shown in this study resemble "peak hour" noise levels and are predicted in hourly L_{eq} dB(A). The L_{eq} descriptor is reliable for low volume as well as high volume roadways, is simpler in most instances for highway designers to work with, and is more flexible in terms of permitting noise levels from different sources to be included in the analysis of the total ambient noise.

The "FHWA Highway Traffic Noise Prediction Model" is the method used in this report to predict L_{eq} dB(A) noise levels. This method was developed and approved for use by the U.S. Department of Transportation Federal Highway Administration. The procedures included in the FHWA Model permit an analysis of variations in traffic noise in terms of traffic parameters, roadway and observer characteristics. These parameters are then identified for a particular traffic situation and transformed into noise level estimates through the use of this prediction method, which has been set up on a computer, using the FHWA Traffic Noise Model (TNM) Version 2.5.

NOISE MODEL PARAMETERS

The following parameters were considered when applying the traffic noise prediction methodology in TNM 2.5:

- Traffic levels, vehicle composition (whether auto, medium truck or heavy truck)
- Current posted speed limits on US-275: 60 mph
- 2044 Design Speed on US-275: 70 mph
- Plan and profile information for roadways
- Location and elevation of sensitive noise receivers by activity category
- Location of terrain and man-made features that act to shield traffic noise
- Ground cover type

Although the speed limit within Wisner is 40 mph, the traffic was observed to be traveling faster on the northeast edge of town (project limits) where traffic is transitioning to and from the rural speed. It was decided that 45 mph would be used in the traffic model to more accurately reflect the traffic speeds in this area.

TRAFFIC PARAMETERS

The traffic noise levels were predicted using the Design Hourly Volume (DHV) traffic as the worst hourly volume. The percent of heavy commercial vehicles is broken down within TNM 2.5 into heavy trucks and mediums trucks. Heavy trucks include vehicles having three or more axles, generally having a gross vehicle weight greater than 26,000 lbs. Medium trucks include all vehicles having two axles and six wheels, generally having a gross vehicle weight greater than 10,000 lbs but less than 26,000 lbs. **Table 3** and **Table 4** show traffic volumes used for noise modeling.

TABLE 3. US-275 Traffic Volumes

US-275 Segment	Existing Traffic Volumes (2018)				Future Traffic Volumes (2044)			
	ADT[1]	% HCV[2]	EB[3] DHV	WB[4] DHV	ADT	% HCV	EB DHV	WB DHV
US -275 & N-57	5570	23%	226	178	7017	20%	422	352
US-275/N-15 West to & N-15 East	5525	20%	206	219	7311	20%	388	381
US-275 & N-15	5650	18%	206	219	7313	20%	349	329
US-275 & N-51	4975	17%	200	182	6786	20%	315	294
US-275 & 18th St	6280	13%	214	202	6971	20%	360	337

[1]ADT = Average Daily Traffic [2]HCV = Heavy Commercial Vehicles
[3]EB = Eastbound, [4]WB = Westbound

Table 4. Traffic Volumes on N-15, and N-57 and N-51

Highway	Existing Traffic Volumes (2018)		Future Traffic Volumes (2044)	
	DHV	%HCV	DHV	%HCV
N-57	41	13	47	13
N-15 (west)	148	15	272	15
N-51	70	11	139	11

Field Noise Measurements

Table 5 documents the field measurements used to verify the TNM 2.5. Two 15-minute readings were taken at each location. Although the methodology presented in FHWA's *Measurement of Highway Related Noise* recommends three noise field measurements per location, due to the relatively flat terrain and simple dimensions of the highway, NDOT determinate that two noise meter readings would be acceptable. Traffic volumes were counted for 15 minutes and multiplied by 4 to obtain the hourly volumes. The model reasonably reflected the measured noise levels deviating by less than 3 dB(A). Locations of field noise measurements are illustrated on the attached **Noise Receiver Location Map**.

Table 5. Monitored Noise Levels

		field reading	modeled	difference	N-275 Traffic			N-15 Traffic		
Location 1	Reading 1	71.9	69.8	2.1	276	32	76	124	16	40
	Reading 2	69.7	68.9	0.8	220	24	60	96	12	60
Location 2	Reading 1	61.8	62.5	0.7	256	12	64	NA	NA	NA
	Reading 2	60.8	61.9	1.1	296	24	44	NA	NA	NA
Location 3	Reading 2	65.8	64.1	1.7	328	24	76	NA	NA	NA
	Reading 3	66.5	64.5	2.0	362	36	68	NA	NA	NA

TRAFFIC NOISE ANALYSIS

In analyzing the preceding traffic noise table, emphasis will be given to the two main noise criteria of a traffic noise impact as set forth in 23 CFR 772. A comparison will be made between the predicted traffic noise levels and the noise abatement criteria (NAC) to determine if a traffic noise impact exists due to the noise levels approaching or exceeding the criteria. In addition, a comparison will be made between existing noise levels and future predicted traffic noise levels to determine if a noise impact occurs due to a substantial increase in noise. Nebraska Department of Transportation considers that an impact occurs and abatement measures will be considered for receptors if:

1. The predicted design year noise levels approach or exceed the NAC. NDOT has established that a noise level of one decibel less than the NAC in the FHWA Noise Standards constitutes "approaching" the NAC. For residential receptors 66 dBA is considered "approaching" while 71 dBA is considered "approaching" for commercial receptors.

2. Predicted future noise levels are 15 dBA or more above existing levels. For purposes of interpreting the FHWA noise standards, this would be considered "substantially exceeding" existing levels.

Land use consisted primarily of Category B receivers (residential). Several Activity Category C receivers were located throughout the project corridor including a former rest area, medical facilities, and a school athletic facility. Category E land use includes a restaurant, motel and a veterinarian office. **Table 6 - Noise Levels Table** lists the receptor IDs and associated noise levels while the **Noise Receiver Location Map** (attached) shows the receptor location.

PREDICTED NOISE LEVELS

The noise analysis identified receivers that would approach or exceed the NAC and determined the relative change in traffic noise levels anticipated due to the changed roadway and traffic volumes. Noise levels were predicted for existing conditions (2018), 2044 no-build condition, and 2044 build condition. TNM was applied using the appropriate roadway, traffic and sensitive receiver information to predict the noise levels for each of the scenarios. The predicted noise levels are summarized as follows:

- There are four instances of build-condition traffic noise impacts. Only Category B (residences) were impacted.
- There are no instances of build-condition traffic noise levels substantially exceeding existing noise levels in the study area (increase of 15 dB(A) over the existing levels).

In general, noise levels within the project corridor were predicted to increase from the existing scenario to the build-scenario by 2 dB(A) to 4 dB(A) due to future traffic growth and an increase in the speed limit by 10 mph. However, as US-275 approached Wisner, the speed limits are not proposed to change as the result of the project. Therefore, there is less increase in noise (1-2 dB(A) increase. In addition, half of the traffic projected to be traveling on US-275 will be shifted further away from most receivers in the build scenario, diminishing the overall increase in noise levels.

Table 6 lists all the noise sensitive receptors within the limits of this project. The table details the following: computed noise levels in hourly L_{eq} dBA for the existing system (2018 traffic volumes), computed noise levels in hourly L_{eq} dBA for future design year 2044 (no-build and build scenario) and the hourly L_{eq} dBA noise abatement criteria (NAC) that are part of the 23 CFR Part 772 guidelines used in determining a noise impact.

Table 6. Noise Levels Table

Receptor ID	Activity Category	Existing	No-build	Build	NAC	Impact
R1	B	50	52	54	66	no
R2	B	60	62	62	66	no
R3	B	47	49	51	66	no
R4	B	57	59	63	66	no
R5	B	64	66	66	66	yes
R6	B	60	62	63	66	no
R7	B	67	69	70	66	yes
R8	B	63	66	66	66	yes
R9	B	47	50	52	66	no
R10	B	63	65	65	66	no
R11	B	53	56	57	66	no
R12	B	53	55	56	66	no
R13	B	55	57	58	66	no
R14	B	47	50	50	66	no
R15	B	48	51	52	66	no
R16	B	58	61	61	66	no

R17	B	55	58	58	66	no
R18	B	58	61	61	66	no
R19	B	64	67	67	66	yes
R20	B	60	63	63	66	no
R21	B	60	63	63	66	no
R22	B	62	65	65	66	no
C1	C - rest area	56	57	58	66	no
C2	C - rest area	56	58	58	66	no
C3	C - medical facility	52	55	55	66	no
C4	C - medical facility	50	53	54	66	no
C5	C - school sports area	65	67	65	66	no
C6	C - school sports area	62	64	63	66	no
C7	C - school sports area	62	65	64	66	no
E1	E- restaurant	61	64	63	71	no
E2	E - Motel	64	67	66	71	no
E3	E - Vet Health	65	68	68	71	no

Noise Abatement Feasibility and Reasonableness Criteria

Because noise impacts were identified, noise abatement measures were considered for this project and discussed in the **Barrier Analysis** section of this report.

In order for noise abatement to be constructed, the abatement measures must meet NDOT's feasibility and reasonableness criteria. The feasibility and reasonableness criteria are summarized as follows:

Acoustic Feasibility

A noise abatement device is considered acoustically feasible when 60 percent of the front-row impacted receptors located directly behind the noise wall achieves a 5 dB(A) noise reduction.

Engineering Feasibility

The following items will be considered in determining engineering feasibility:

(1) Can the barrier be designed to fit the topography and existing/designed highway barriers and still be maintained?

(2) Can the exposed height of a noise barrier be built at 25 feet high or less?

(3) Does the barrier meet safety requirements?

Reasonableness

(1) **Noise reduction design goal of 7 dB(A).** A minimum of 50 percent of benefited front-row receptors directly behind the noise wall must achieve a 7 dB(A) noise reduction for noise abatement to be reasonable.

(2) **Cost Effectiveness.** Noise abatement must be cost effective. NDOT defines cost effectiveness as dollars per benefited receptor. Based on construction price estimates for 2016, NDOT will use a unit cost of $\$47/ft^2$.

While the base value of allowable abatement cost is $37,000 per benefited receptor, NDOT allows for adjustments based on the design year noise level as shown in **Table 7**. In addition, receptors experiencing a substantial increase in build noise levels also receive an additional $3,000 in allowable cost, resulting in a potential maximum allowable cost of $52,000 per benefited receptor in extreme instances.

If the cost per benefited receptor is greater than the adjusted allowable cost shown in **Table 7**, the abatement is considered not reasonable.

TABLE 7. Allowed Cost per Benefitted Receptor

Design Year Noise Level*	Allowed Cost per Benefited Receptor	Allowed Cost per Benefited Receptor with Substantial Increase**
66-67 dB(A)	$37,000	$40,000
68-69 dB(A)	$40,000	$43,000
70-71 dB(A)	$43,000	$46,000
72-73 dB(A)	$46,000	$49,000
74+ dB(A)	$49,000	$52,000

*Average noise level for all impacted receptors.

**Receptors experiencing a substantial increase receive an additional $3,000 in allowable cost.

(3) **Viewpoints of the property owners and tenants of the benefited receptors**

If the above reasonableness factors are met, noise abatement will only be provided if at least 75 percent of benefited receptors vote in favor of abatement. NDOT defines a benefited receptor as achieving at least a 5 dB(A) reduction.

For a complete discussion of the NDOT feasibility and reasonableness criteria, see the NDOT Noise Analysis and Abatement Policy.

Barrier Analysis

Noise impacts were identified at four receptors throughout the project. All of the impacted receptors are individual residences (Activity Category B). Because impacts were identified, noise abatement was analyzed at these locations. The analysis was completed using TNM 2.5, which models the noise abatement in the future build scenario with the proposed project improvements and projected traffic volumes included. **Table 8** summarized the results of the noise barrier analysis.

Barrier 1 was analyzed for one individual residence approximately ½ mile west of the US-275/N-15 (574th Ave) Junction. Barrier 2 was analyzed for two residences located at the US-275/N-15 (574th Ave) Junction. Lastly, Barrier 3 was analyzed for one individual residence at the northwest corner of 16th St and US-275 within Wisner. **Figures 1-3** depict the approximate noise wall and receptor locations, the average height and the length of each noise wall and summarizes the feasibility and reasonableness results.

Figure 1. Barrier 1 Analysis Results



Figure 2. Barrier 2 Analysis Results

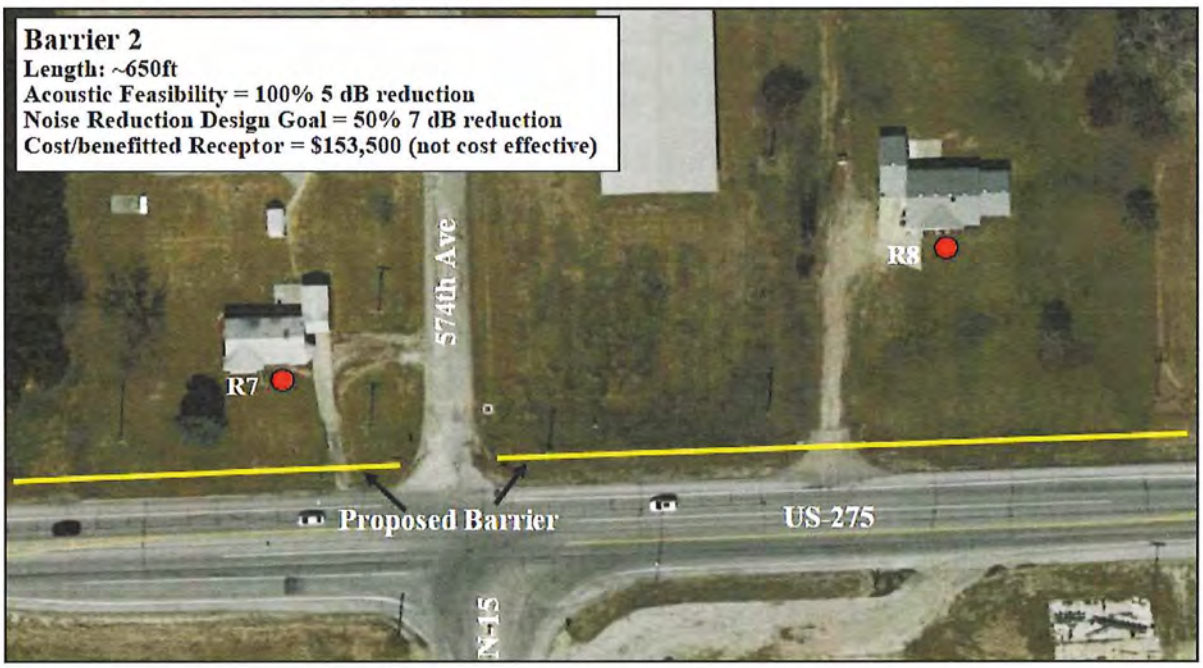

Figure 3. Barrier 3 Analysis Results



Table 8. Summary of Barrier Analysis

Barrier ID	Receptors Analyzed	Acoustic Feasibility	Noise Reduction Goal	Barrier Cost	Cost per Receptor	Cost Effective
Barrier 1	R5	Yes- 100%	No - 0%	NA	NA	NA
Barrier 2	R7, R8	Yes- 100%	Yes- 50%	$307,000	$153,500	No
Barrier 3	R19	Yes- 100%	Yes - no%	NA	NA	NA

As illustrated in **Figures 1-3** and **Table 8,** all of the proposed barriers met the acoustic feasibility requirement. However, Barriers 1 and 3 could not achieve a 7 dB(A) reduction in noise; therefore, no cost effectives analysis was required. These receivers could not achieve the required reduction due to access limitation. For Barrier 2, the noise reduction design goal was met as Receiver R8 was able to achieve a 7 dB(A) reduction in noise. The average noise level for Receivers R7 and R8 is 68 dBA(). This corresponds to a maximum cost/benefited receptor of $40,000 (see **Table 7. Allowed Cost per Benefitted Receptor**). The cost\benefitted receptor at this location greatly exceeds the allowable cost primarily due to the few number of receptors that noise walls could protect and the noise wall break for access to 574th Ave. The noise barriers do not meet the reasonableness criteria at any of the three analysis locations; therefore, noise barriers will not be construction as part of the project.

Noise abatement berms were considered for this project. In order to achieve the noise necessary noise reduction, the berm height would be significant at a minimum of 14 feet and up to 24 feet high. Based on these heights, the width of the berm is too great to reasonably construct within the ROW or construct with minimal property impacts. Noise berms are not considered feasible for this project.

Information for Local Officials: Recommended Setbacks

For informational purposes and planning by local governments, the future (2044) recommended setback of residential properties (Activity Category B) and Activity Category C properties from edge of the pavement of US-275 is estimated to be approximately 115 feet in rural areas and 55 feet between 21st St and 18th St in Wisner. The recommended setbacks for noise sensitive commercial properties (Category E) is 70 feet from US-275 in the rural areas. There are no recommended setbacks for Category E properties between 18th St and 21st St as the 71 dB(A) contour is within NDOT ROW.

CONSTRUCTION NOISE

The evaluation and control of construction noise must be considered as well as the traffic noise. The noise sensitive receptors that are located directly adjacent to this project are those that are of major concern in this study of construction noise. These same receptors were also of concern in the traffic noise study.

The following are some basic categories of mitigation measures for construction noise.

Community Awareness: It is important for people to be made aware of the possible inconvenience and to know its approximate duration so they can plan their activities accordingly. It is the policy of the Nebraska Department of Transportation that information concerning the upcoming project construction be submitted to all local news media.

Source Control: This involves reducing noise impacts from construction by controlling the noise emissions at their source. This can be accomplished by specifying proper muffler systems, either as a requirement in the plans and specifications on this project or through an established local noise ordinance requiring mufflers. Contractors generally maintain proper muffler systems on their equipment to ensure efficient operation and to minimize noise for the benefit of their own personnel as well as the adjacent receptors.

Site Control: Site control involves the specification of certain areas where extra precautions should be taken to minimize construction noise. One way to reduce construction noise impact at sensitive receptors is to operate stationary equipment, such as air compressors or generators, as far away from the sensitive receptors as possible. Another method might be placing a temporary noise barrier in front of the equipment. As a general rule, good coordination between the project engineer, the contractor, and the affected receptors is less confusing, less likely to increase the cost of the project, and is a more personal approach to work out ways to minimize construction noise impacts in the more noise-sensitive areas. No specific construction-noise, site-control specifications will be included in the plans.

Time and Activity Constraints: Limiting work hours on a construction site can be very beneficial during the hours of sleep or on Sundays and holidays. However, most construction activities do not occur at night and usually not on Sundays. Exceptions due to weather, schedule, and a time-related phase of construction work could occur. No specific constraints will be incorporated in the plans of this improvement. Enforcement of these constraints could be handled through a general city or county ordinance, either listing the exceptions or granting them on a case-by-case basis.

SUMMARY

The noise analysis completed for the NDOT Norfolk to Wisner project identified four residential receivers that are impacted by traffic noise in the future build-scenario (2044). Noise walls were analyzed at these locations. The acoustic feasibility criteria was met for all receivers (5 dBA reduction in noise levels). However, noise barrier locations 1 and 3 did not meet the noise reduction design goal of 7 dBA at 50% of benefited receptors; therefore, noise abatement was not considered reasonable at these locations. Noise barrier 2 met the noise reduction design goal but was not considered cost effective because the cost per benefited receiver was greater than $40,000. Noise barriers will not be construction as part of the project.

In the event that any changes in the nature, design, or location of the project are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

Mitigation

Construction Noise

Exhaust and mufflers systems on equipment will be in good working order. Equipment will be maintained on a regular basis, and equipment may be subject to inspection by the construction project manager to ensure maintenance. (Contractor, NDOT PM)

The contractor will locate noise-emitting stationary equipment (e.g., compressors, generators) to avoid unnecessary impacts to residents and businesses. (Contractor, NDOT PM)

REFERENCES

23 Code of Federal Regulations (CFR) Part 772 was used throughout the study.

Predicted noise levels were based upon the method presented in FHWA-RD-77-108 "FHWA HIGHWAY TRAFFIC NOISE PREDICTION MODEL."

Nebraska Department of Transportation "Noise Analysis and Abatement Policy," October 2018.

The introductory section of this study was taken in part from "Guide on Evaluation and Attenuation of Traffic Noise" prepared by American Association of State Highway and Transportation Officials. It is included to familiarize the reader with some of the basic technical terminology and to discuss the guidelines and standards used in the development of the report.

Methods for evaluation and control of construction noise were taken from the FHWA Special Report - 'Highway Construction Noise: Measurement, Prediction and Mitigation'.

Attachment – Noise Receiver Location Map

Noise Receiver Location Map





Receiver Location Map

Norfolk To Wisner
C.N. 32319
Stanton and Cumming Counties

- Receiver
- Impacted Receiver
- Field Noise Measurements
- US-275



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Noise Receiver Location Map





Receiver Location Map

Norfolk To Wisner
C.N. 32319
Stanton and Cumming Counties

- Receiver
- Impacted Receiver
- Field Noise Measurements
- US-275



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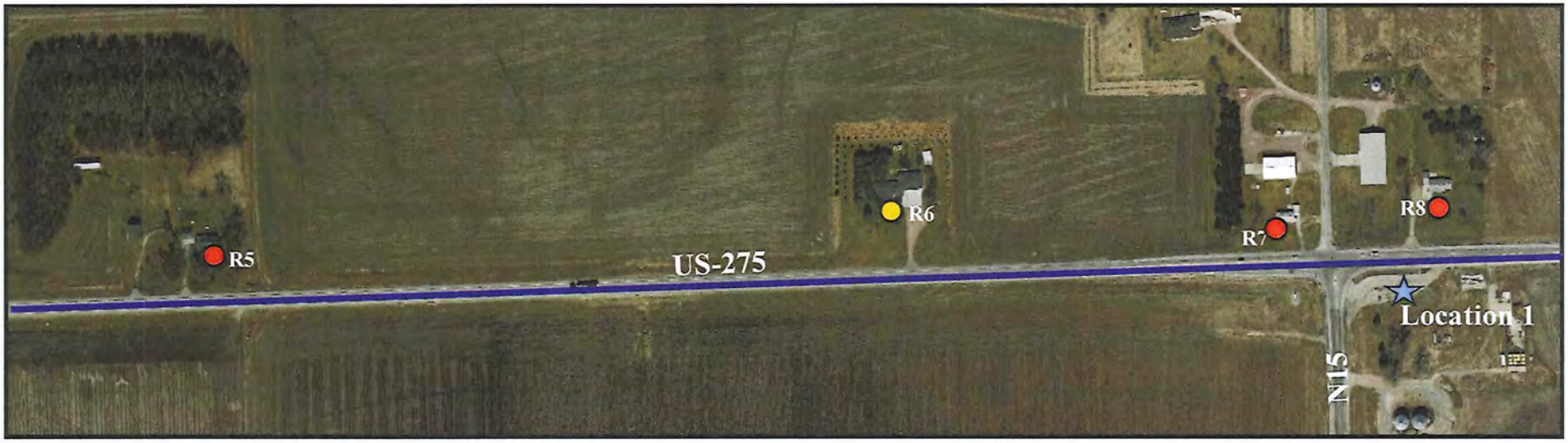
Noise Receiver Location Map





Receiver Location Map

Norfolk To Wisner
C.N. 32319
Stanton and Cumming Counties

Receiver
Impacted Receiver
Field Noise Measurements
US-275



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Noise Receiver Location Map



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- Receiver
- Impacted Receiver
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- US-275

Receiver Location Map

Norfolk To Wisner
C.N. 32319
Stanton and Cumming Counties



Noise Receiver Location Map



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Receiver Location Map

Norfolk To Wisner
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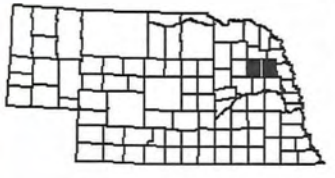
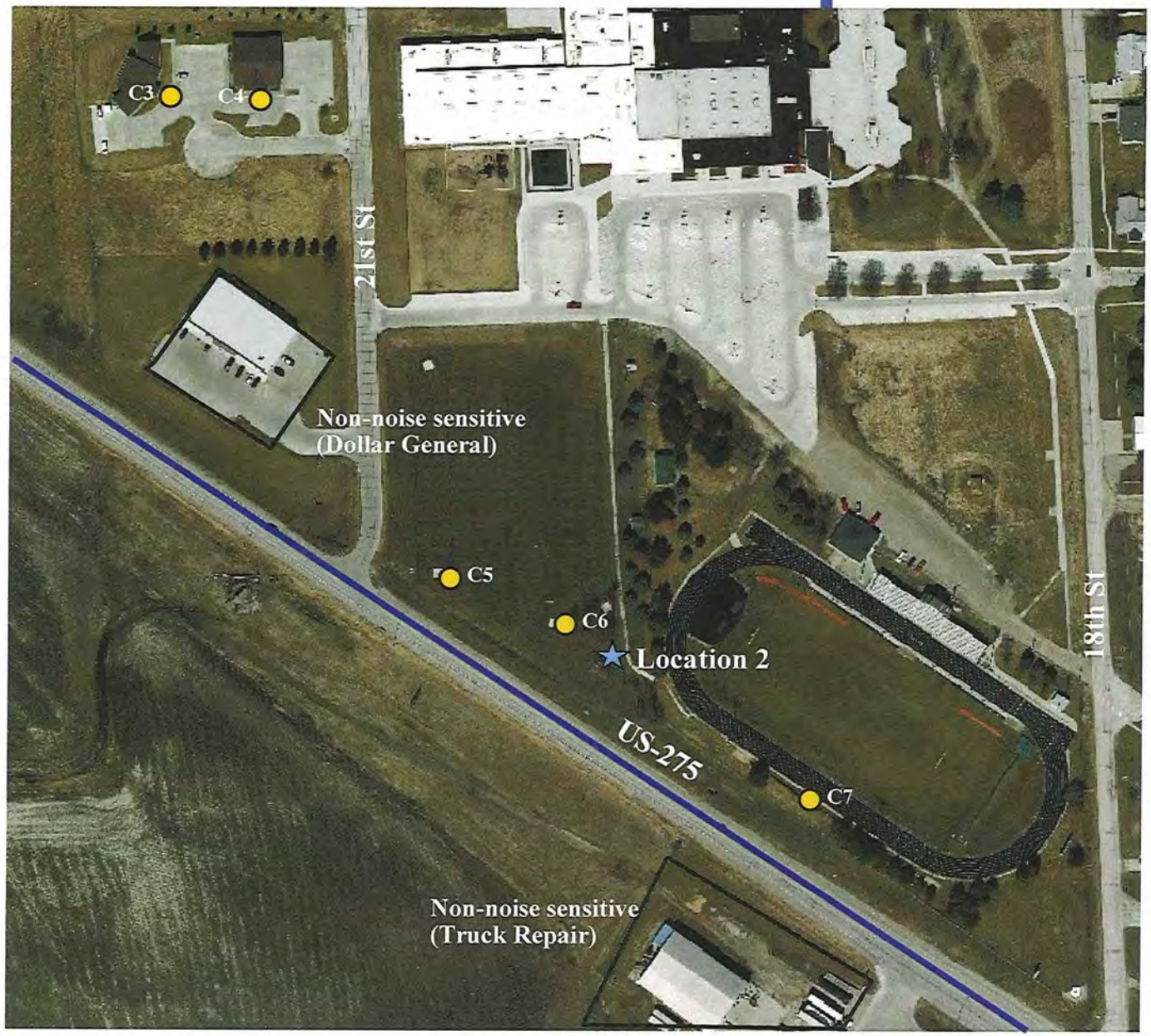


Noise Receiver Location Map



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- Receiver
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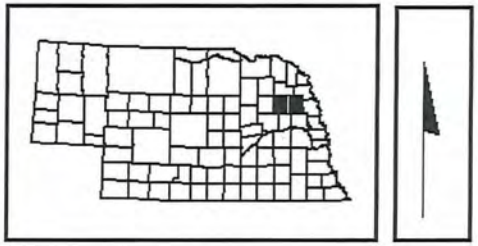

Noise Receiver Location Map



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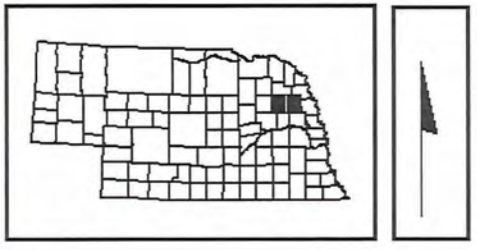

Appendix J

Hazardous Materials

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Hazardous Materials Memorandum

Date: February 6th, 2023

To: Courtney Ziska, Highway Environmental/NEPA Specialist, Project Development Division

From: Aaron Bedea, Environmental Specialist III, Project Development Division

Subject: Hazardous Materials Review (HMR) & Professionally Qualified Staff (PQS) Memo for the Nebraska Department of Transportation (NDOT) Project Norfolk-Wisner (CN 32319).

Overview

An HMR was completed by HDR for the Norfolk-Wisner project and approved by NDOT on February 6th, 2023. A HMR was required for this project because the scope of work exceeds the project exemptions. The purpose of the HMR is to identify environmental concerns associated with hazardous materials and petroleum products which could potentially be encountered during the construction project. This memo summarizes the conclusions and applicable mitigation measures found in the HMR and assists the Environmental Documents manager in completing the Hazardous Materials section of the Environmental Assessment. The HMR can be found in the NDOT project file.

Project Description

The project description dated/updated December 22nd, 2022 was utilized for this HMR.

The improvements on this project consist of expanding the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway on one side of the existing US-275 (called “2+2 Construction” by NDOT). In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 (N-15) at two locations and Nebraska Highway 51 (N-51) northwest of Wisner, along with various county roads. Additional work would consist of concrete repairs, culvert work, trench widening, removing and replacing pavement, bridge repairs, bridge replacement, lighting, and signing & striping. Grading would be required for the entire length of this project.

Visual Reconnaissance

Todd Wilson, HDR, conducted a visual reconnaissance on May 16, 2019. The purpose of the visual reconnaissance was to assess the project area for potential hazardous materials concerns associated with current land use and observable site activities. The visual reconnaissance assessed the project area for obvious evidence of potential contamination sources, such as current hazardous materials storage or use; unusually stained soils, concrete slabs, or pavements; sumps, dumps, drums, tanks, and electrical transformers; stressed

vegetation; and discarded containers. No additional sites were identified during the visual reconnaissance.

Hazardous Material Site Discussion

Any site not adjacent to, and upgradient from the project with a Leaking underground Storage Tank, a site with only a SARA Title 3 designation or Resource Conservation & Recovery Act (RCRA) without infraction, a site closed by the NDEE for further evaluation or remediation, or any sites whose appearance within the mapping system is not hazardous material in nature (i.e., On-site Water Treatment, Permit-for-Construction) will not be brought forward for discussion.

A review of the NDEE – Interactive Mapping System on December 12th, 2022 revealed five sites with contaminated soil/hazardous materials. The discussion of these sites follows:

Cattleman's Lodge & Suites: This facility is located 30ft SE of project limits and has an active Leaking Storage Tank (LST) designation. Petroleum contamination discovered during past fuel tank excavations is currently undergoing monitoring. Plans for additional gauging and monitoring wells are expected to be completed in Spring 2023. Currently, five monitoring wells are in use. All five indicated the presence of petroleum in groundwater; two found contamination in soil samples (Tier II Assessment). Depth to groundwater is between 10.6 and 12.3ft below ground surface (bgs); construction activities in this area are proposed to be limited to subgrade preparation (<2ft bgs). Based on the proposed construction activities and the presence of known soil and groundwater contamination, the site is considered to have a medium potential to impact human health or the environment. A figure of this site will be included in appendix A. Medium impact and monitoring well commitments will be added to mitigation.

Wisner-Pilger High School: This facility is located over 500ft NE from project limits and has an inactive LST designation. One of two fuel tanks removed from site in July 1990 showed signs of contamination. Over-excavation occurred to a depth of 17ft bgs that removed contaminant levels below detection limits. Due to scope of work and remediation activities, this facility has a low potential to impact human health or the environment.

Beverly McKinney Farm: This facility is located over 180ft NE from project limits and has an inactive Integrated Waste Management (IWM) designation. The site was listed because of improper disposal of solid waste into two lagoons adjacent to truck washes on the property. The lagoons were cleaned up and the materials disposed of properly. NDEE provided a No Further Action letter, and the case was closed. Due to scope of work and regulatory status, this facility has a low potential to impact human health or the environment.

Pilger Milling Company: This facility is located adjacent to the S of project limits and has an inactive LST designation. The site contained two 6,000-gallon gasoline tanks, one 4,000-gallon diesel tank, dispensers, and piping, all of which were removed from the site in November 1989. Soil vapor screening indicated that contamination was present beneath dispensers, piping, and each of the three tanks. The tank pit was over-excavated, and discolored soils were removed until there was no petroleum odor in the remaining soils. A No Further Action letter was provided by NDEE, and site was closed with minor contamination. It is stated in the Closure Assessment that belief is all contamination was removed and that any readings are possibly due to the location's history as a cattle feed lot. Due to scope of work, remediation

efforts, and regulatory status, this facility has a low potential to impact human health or the environment.

US Department of Agriculture (USDA) Grain Bin: This bin is located over 4000ft S of project limits and has an active Superfund (SF) designation. The EPA samples these locations for evidence of contaminants related to historic grain fumigation practices. Groundwater results did not indicate the presence of chloroform or carbon tetrachloride, which are common grain fumigants. Due to sampling results and distance from project work, there will be a low potential for impacts to human health or the environment.

Asbestos Hazards

An asbestos survey found asbestos containing material on structure S275 08742; asbestos mitigation is required.

Lead Hazards

The scope of work described by the bridge determination and project description has potential to encounter lead paint or shims; lead mitigation is required.

Findings

Based upon the information discussed above, hazardous material has a medium potential to impact the project.

Mitigation

Unexpected Waste:
If contaminated soils/groundwater or unexpected wastes are discovered, The Contractor shall stop all work within the immediate area. The Contractor shall secure the area of the discovery and notify the NDOT Highway Project Manager (HPM). The Contractor shall not re-enter the discovery area until notified by the HPM. At the time of discovery, the HPM and Contractor shall utilize the NDOT Unexpected Waste Action Plan (UWAP) to coordinate appropriate actions. The actions to be carried out by the HPM are (but not limited to): verification that the Contractor has suspended construction activities in the area of the discovery, contact the Environmental Section Manager and make an entry into Site Manager that an unexpected waste discovery was made. The HPM shall then utilize the UWAP Notification Form (NDOT Form 691) to properly document the extent and type of waste. The HPM will ensure that proper disposal of the waste and any required health and safety mitigation is implemented by the Contractor. The Contractor is required by NDOT's Standard Specification section 107.11 (Hazardous Material Discoveries) to handle and dispose of regulated material in accordance with applicable laws.

Contractor Commitment: If contaminated soils/groundwater or unexpected wastes are discovered, The Contractor shall stop all work within the immediate area. The Contractor shall limit access to authorized personnel within the area of the discovery and notify the NDOT Highway Project Manager (HPM). The Contractor shall not re-enter the discovery area until notified by the HPM. At the time of discovery, the HPM and Contractor shall utilize the NDOT Unexpected Waste Action Plan (UWAP) to coordinate appropriate actions. The Contractor is required by NDOT's Standard Specification section 107.11 (Hazardous Material Discoveries) to handle and dispose of regulated material in accordance with applicable laws.

Medium Potential Commitment:
There is a medium potential for petroleum contamination to be present in the soils/groundwater at project Norfolk to Wisner (CN 32319) in Wisner, NE, southwest of the intersection of 17th Street and US-275; northwest of station 876 + 34.5. The Contractor shall be aware of the possibility of encountering contamination in this area during construction activities and look for signs such as odor and/or discolored soil. The NDOT Highway Project Manager shall be notified when construction occurs in the suspect area. If contamination is discovered, all work in the immediate area shall be stopped until NDEE and NDOT are notified, and a materials and management plan has been developed and approved. The Contractor shall manage the waste in accordance with Title 132, Nebraska Hazardous Waste Regulations. The Contractor is required by NDOT's Standard Specification section 107 (legal relations and responsibilities to the public) to handle and dispose of contaminated material in accordance with applicable laws.

Monitoring/Remediation wells:
There are one or more monitoring wells and/or soil vapor extraction (SVE) wells located near the Cattleman's Lodge and Suites in Wisner, NE around RP 121+80. The monitoring/SVE wells will be located and marked by the Highway Project Manager (HPM)/State Representative in the field. Construction activities near the wells will be performed as to avoid damage to the wells. In the event that a monitoring/SVE well is damaged, the Contractor shall notify the HPM/State Representative immediately. The NDOT HPM/State Representative will coordinate with the NDOT Environmental Section for guidance regarding remediation of the damage. The Contractor shall remediate any damaged monitoring/SVE wells as directed by the Engineer. The HPM will upload documentation of the Contractor's remediation to OnBase (NDOT Dist. Environmental, description: monitoring well remediation).

Contractor Commitment: The Contractor shall avoid damaging any monitoring or SVE well as marked in plans or in the field. In the event that a monitoring well/SVE well is damaged, the Contractor shall stop work at that location and notify the Highway Project Manager immediately. The Contractor shall comply with the Engineer's direction concerning remediation of damaged monitoring/SVE wells and shall not continue construction activities in the vicinity of the damaged well until notified by the Engineer.

Structure/s Tested Positive for ACM:
The following bridge structure(s) tested positive for asbestos containing material (ACM).
- S275 08742 Black expansion joint at the center of concrete deck (45sq.ft.).

Contactor Commitment: Removal and disposal of the ACM shall be in accordance with Nebraska Department of Health and Human Services (DHHS) Nebraska Asbestos Control Program Regulations, Title 178. The Contractor shall develop a removal and disposal plan in coordination with a licensed asbestos removal contractor and NDOT. The Contractor shall contact DHHS no later than 10 business days prior to removal of the ACM for guidelines on disposal. If the asbestos cannot be kept in a non-friable condition upon removal, the Contractor shall use a licensed asbestos removal contractor. A list of licensed asbestos removal contractors can be found at: http://dhhs.ne.gov/Pages/Asbestos.aspx. ACM shall be disposed of at a landfill approved for handling asbestos. The Contractor shall provide landfill receipts to the NDOT Highway Project Manager within 10 working days of disposal.

The Highway Project Manager will upload disposal documentation (i.e., landfill receipts or other documentation provided by the Contactor) to OnBase.

NESHAP submittal
Contractor Commitment:
The Contractor shall submit a written National Emissions Standards for Hazardous Air Pollutants (NESHAP) notification to the Nebraska Department of Environment and Energy (NDEE) and a Department of Health and Human Services (DHHS) Form 5 at least 10 business days prior to demolition/renovation. The 10-day clock starts when the NESHAP and Form 5 notifications are post marked, hand delivered, or picked up by a commercial delivery service. Faxing documents is prohibited. The Contractor shall provide the NDOT Highway Project Manager copies of the notifications and their submittal date prior to demolition/renovation activities.

The Highway Project Manager will upload NDEE NESHAP and DHHS Form 5 documentation to OnBase

Commitment for depainting/painted component removal involving Toxic Metal-Based Paint on bridge/building structure.

There is potential for lead or toxic metal-based paint to be found on the structures to be demolished or repaired. Extreme caution shall be taken to minimize the amount of painted material or debris from causing or threatening to cause pollution of the air, land, and waters of the State. The Contractor shall create an implementation plan to dispose of paint waste in accordance with NDOT's Standard Specification for Highway Construction Section 732 (Lead-based Paint Removal) and Title 128 Nebraska Hazardous Waste Regulations. The Contractors implementation plan shall be provided to the HPM and documented in OnBase.

Commitment for handling lead plates during bridge demos and rail updates where lead shims (lead plates under the bridge rail posts) are present

The bridge structures S275 08742, S275 09309, S275 09423, and S275 09644 will be replaced or repaired. The Contractor shall create an implementation plan to recycle any lead-bearing plates and/or lead shims at a legitimate recycling facility as found in paragraph 3 (lead plate recycling) in Section 203.01 of the Standard Specification for Highway Construction and in accordance with Title 128, Nebraska Hazardous Waste Regulations. The Contractors implementation plan shall be provided to the HPM and documented in OnBase.

NEPA Determination:

The State has determined that this project has no significant impact(s) on the environment and that there are no unusual circumstances as described in 23 CFR 771.117(b). As such, the project is categorically excluded from the requirements to prepare an environmental assessment or environmental impact statement under the NEPA. The State has been assigned, and hereby certifies that it has carried out, the responsibility to make this determination pursuant to 23 U.S.C. §326 and a Memorandum of Understanding dated September 17, 2021, executed between FHWA and the NDOT.

Bedea, Aaron
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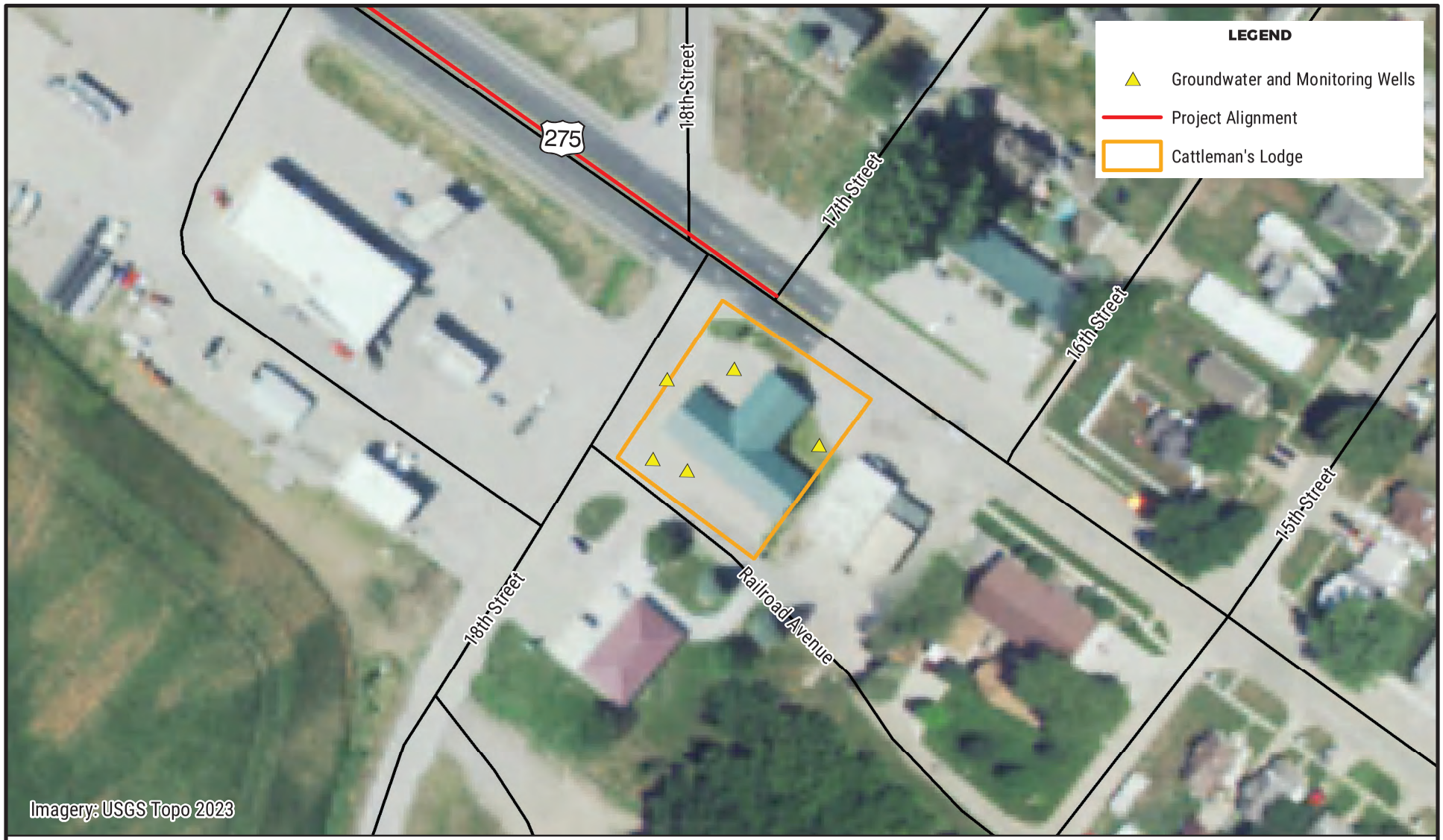
Date: 2023.02.06 11:56:16 -06'00'

Name
Aaron Bedea, Highway Environmental Specialist
Project Development Division
NDOT

Appendix A:



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0 50 100
FEET

N

CATTLEMAN'S LODGE
NORFOLK - WISNER
PROJ. NO. S-275-6 (1052)
CN 32319

DATE: 1/13/2023

FIGURE 3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_16_HAZMAT\MAP_8X11_FIG_3_CATTLEMANSLODGE.MXD - USER: CMODRCIN - DATE: 1/13/2023

US-275 Norfolk – Wisner Hazardous Materials Review

Project Number: S-275-6(1052)
Control Number: 32319

June 2019/Revised January 2023

Author: Todd Wilson/QC: Jim Pavlik

Bedea, Aaron

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B Project Description

1.0 Introduction

Todd Wilson of HDR, acting on behalf of the Nebraska Department of Transportation (NDOT), conducted a hazardous materials review (HMR) for the US Highway 275 (US-275) Norfolk – Wisner Project (Project Number S-275-6(1052), Control Number [C.N.] 32319). The US-275 Norfolk – Wisner Project (Project) is located in Stanton and Cuming Counties, Nebraska, along US-275 starting at mile marker (MM) 86.33 and extending east to MM 101.79 (see Appendix A, Figure 1).

This HMR was performed as part of the National Environmental Policy Act of 1969 (NEPA) documentation for the Project. The information provided in this HMR report is intended to assist NDOT in identifying potential hazardous materials concerns and in considering the possible need to address hazardous materials concerns in project decisions regarding materials management and worker health and safety. A project description is included in Section 1.1, and the complete project description is provided in Appendix B. The methodology used to evaluate sites is provided in Section 1.2. The Hazardous Materials Study Area (HMSA) encompasses a 0.1-mile radius surrounding the construction centerline (see Appendix A, Figure 2). However, sites outside of the HMSA were evaluated to determine if a release could affect the Project due to groundwater migration or other criteria discussed in Section 1.3 and Section 3.1.

1.1 Project Description

The improvements would expand the existing two-lane highway to a four-lane expressway by constructing a new, parallel two-lane roadway (called 2+2 Construction by NDOT) on one side of the existing US-275. In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 (N-15) at two locations and Nebraska Highway 51 (N-51) northwest of Wisner, along with various county roads. Structures including bridges, box culverts, and culverts will be extended or replaced, or both. The Project would include grading beyond the hinge point for curb inlets and storm sewer pipe, guardrail replacement, utility reconstruction, drives and intersections, lighting and traffic signals, and sidewalks and curb ramps with cuts up to 25-30 feet in depth in some locations. Additional property rights would be required to build this Project. Table 1 summarizes the project features.

Table 1. Project Features

Project Feature	Present (yes/no)	Discussion
Structure Acquisition	☒ Yes ☐ No	
Structure Modification	☒ Yes ☐ No	Bridge structures, box culverts, and culverts will be extended or replaced, or both. Guardrail will be replaced with surfacing underneath.
Structure Demolition	☒ Yes ☐ No	
Full Property Acquisition for Right-of-Way	☒ Yes ☐ No	Full or partial property acquisition will be required to construct this Project.
Permanent or Temporary Easements	☒ Yes ☐ No	
Utility Relocation	☒ Yes ☐ No	
Excavation or Drilling	☒ Yes ☐ No	Grading beyond the hinge point would be required. Shallow excavations may be necessary for storm sewer reconstruction and culvert extension. Deeper excavations will be required for profile corrections.
Disturbance Depth (feet)	Anticipated up to 25 to 30 feet below ground surface (bgs) depending on construction activity.	
Encountering Groundwater Anticipated	☒ Yes ☐ No	
Dewatering	☒ Yes ☐ No	Dewatering may be required along portions of the Project.
Depth to Groundwater (feet) (Section 2)	Depth to groundwater ranges from approximately 4 to 166 feet bgs in the project area.	
Groundwater Flow Direction (Section 2)	Anticipated in an east/southeasterly direction based on topography over much of the alignment but will vary based on distance from the Elkhorn River or Sand, Humbug, and Payne Creeks in the project area.	

1.2 Methodology

The methodology used to identify the presence of sites within the project footprint that have the potential to affect the Project included the following steps:

- Review state and federal environmental agency databases to identify and assess sites with potential to affect the Project. Review databases up to 1 mile from the project footprint, as described in Section 3.1, including:
  - Nebraska Department of Environment and Energy (NDEE) Interactive Mapping System (NDEE 2022a)
  - US Environmental Protection Agency (EPA) Facility Registry System (EPA 2022)
  - NDEE Leaking Underground Storage Tank (LUST) and Surface Spill Site Information database (NDEE 2022b)
  - Nebraska State Fire Marshal (SFM) Registered Underground Storage Tank (UST) database (SFM 2022)
- Review historical aerial photographs of the HMSA using Google Earth™ mapping service.
- Review United States Geological Survey (USGS) topographic maps (USGS 2022).
- Perform a visual reconnaissance of the HMSA from public right-of-way to identify potential contamination sources, and review sites identified during the reconnaissance within and adjoining the HMSA.
- Review Nebraska Department of Natural Resources (NeDNR) records for well completion and static water level information (NeDNR 2022).
- Review electronic or hard copy files, or both, from NDEE to aid in evaluation of sites within the HMSA.

1.3 Impact Criteria

The magnitude of the project impact from an identified site depends on several factors, including the following:

- The distance between a potential source of a hazardous material, as defined in the *NDOT Hazardous Material Review Guidance Manual* (NDOT 2018), and the Project
- Regulatory status of the identified sites (for example, active or inactive)
- Whether known or suspected releases into soil, surface water, or groundwater have occurred
- The hydrogeologic relationship of the source of contamination to the Project
- The depth of construction

This HMR considers these factors as part of the evaluation of whether an identified site has the potential to affect the Project. Identified sites were categorized as having low, medium, or a high potential to affect the project area. The following describes the categories:

- Low Potential Site: Through investigation, it is determined that it is unlikely that contamination would be encountered during construction.
- Medium Potential Site: During an investigation, it is determined that it is unclear whether contamination is located within the project footprint. A subsurface investigation or further coordination with regulatory agencies determines it is unlikely that contamination would be

located within the project footprint. On a case-by-case basis, a commitment to the contractor and NDOT Project Manager to look for signs of contamination in specific areas can be included in the HMR rather than proceeding with a subsurface investigation.

- High Potential Site: Through file review or subsurface investigation, it is determined that it is likely that contamination would be encountered during construction.

These criteria are used throughout this report to evaluate the impact potential of hazardous materials on the Project.

2.0 Environmental Setting

The environmental setting consists of commercial properties on the western end of Wisner and rural properties to the west along US-275 to Nebraska Highway 57 (N-57). The United States Geological Survey (USGS) topographic maps indicate that the project area generally slopes to the east/southeast toward the Elkhorn River (USGS 2019). The USGS topographic maps shows the elevation of Norfolk is 100 feet higher than Wisner (USGS 2019). Based on a review of the NeDNR well registration database and NDEE records, depth to groundwater ranges from 4 to 166 feet below ground surface (bgs) (NeDNR 2019). The elevation of the Sand, Humbug, and Payne Creeks was estimated to range from 6 to 20 feet below the bridge/road surface during the visual reconnaissance. The assumption is made that groundwater flows east/southeast in the direction of the Elkhorn River. Groundwater flow direction and depth would likely vary depending on seasonal variations of rainfall and water levels of the Elkhorn River and Sand, Humbug, and Payne Creeks.

3.0 Results

The following sections summarize the regulatory database search, visual reconnaissance, historical aerial photograph review, and regulatory file review at NDEE. As discussed in Section 1.3, the evaluation of magnitude of the project effects from a hazardous material is based on several factors. The HMR resource reviews were used to identify and evaluate sites with potential concerns related to hazardous materials that are located adjoining, or in the vicinity of, the proposed project improvements.

3.1 Regulatory Database Search

Types of sites evaluated during the database search include, but are not limited to: USTs; Leaking Underground and Aboveground Storage Tanks (LST); Aboveground Storage Tanks (AST); Petroleum Release Remediation (PRR); Release Assessment (RA); Resource Conservation and Recovery Act (RCRA) sites with reported violations; Tier 2 Chemical Reporting/Superfund Amendments and Reauthorization Act Title III (TL3); Integrated Waste Management (IWM); Temporary Storage and Disposal (TSD); and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Sites were evaluated for the potential to affect the Project. Table 2 summarizes the minimum search distances, which guided the database review.

Table 2. Database and Search Radii

Database	Types of Sites Reviewed	Minimum Search Radius
EPA FRS, NDEE IMS and Spills, SFM UST and LST	UST, AST, LST, PRR, RCRA w/ violations, TL3, Brownfields	0.1 mile or adjacent
EPA FRS, NDEE IMS and Spills, SFM LST	LUST, PRR, IWM, RA, TSD sites upgradient of the HMSA	0.5 mile
EPA FRS, NDEE IMS	CERCLA	1.0 mile

EPA = US Environmental Protection Agency; FRS = Facility Registry System; NDEE = Nebraska Department of Environment and Energy; IMS = Interactive Mapping System; SFM = State Fire Marshal; UST = Underground Storage Tank; LST = Leaking Underground or Aboveground Storage Tank; AST = Aboveground Storage Tank; PRR = Petroleum Release Remediation; RCRA = Resource Conservation and Recovery Act; IWM = Integrated Waste Management; RA = Release Assessment; TSD = Temporary Storage and Disposal; HMSA = Hazardous Materials Study Area; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

Sites identified that had a potential to affect the Project are included in Table 3 and shown in Appendix A, Figure 2. Additional sites were identified and evaluated during the database search but were not carried forward for additional analysis due to their distance from the Project, topographic gradient relative to the Project, and/or regulatory status.

Table 3. Identified Sites within the HMR Search Radii

Facility	Address	Regulatory Database[1] and Facility Status[2]	Distance Relative to Project
Wisner-Pilger High School (NDEE ID – 6776)	801 18th Street Wisner, NE	LST(I), RCR(A)	500 feet northeast
Greta Roth Farm (NDEE ID –76305)	Highway 51 Wisner, NE	LST(I), OWT(A)	630 feet northeast
Beverly McKinney Farm (NDEE ID – 85470)	412 Road Wisner, NE	IWM(I)	180 feet northeast
Pilger Milling Company (NDEE ID – 45744)	84096 Highway 15 Pilger, NE	AIR(A), PCS(A), LST(I)	20 feet south
US Department of Agriculture (USDA) Grain Bin (NDEE ID – 86922)	Pilger, NE	SF(A)	4,000 feet south
Wisner West (NDEE ID – 60040)	1801 Avenue E Wisner, NE	TL3 (I), UST(A)	90 feet southwest
Cattleman's Lodge & Suites (NDEE ID – 65219)	1621 Avenue E Wisner, NE	TL3(I), LST(A), PRR(A)	30 feet southeast

1. AIR = Clean Air Act; LST = Leaking Storage Tanks; PCS = National Pollutant Discharge Elimination System Permits and Compliance; PRR = Petroleum Release Remediation; UST = Underground Storage Tank; IWM = Integrated Waste Management; RA = Release Assessment; RCR = Resource Conservation Recovery; TL3 = Superfund Amendments and Reauthorization Act Title III; OWT = On-site Wastewater Treatment; SF = Superfund; BF=Brownfield
2. Active = (A); Inactive = (I)

3.2 Visual Reconnaissance

Todd Wilson, HDR, conducted a visual reconnaissance on May 16, 2019. The purpose of the visual reconnaissance was to assess the project area for potential hazardous materials concerns associated with current land use and observable site activities. The visual reconnaissance assessed the project area for obvious evidence of potential contamination sources, such as current hazardous materials storage or use; unusually stained soils, concrete slabs, or pavements; sumps, dumps, drums, tanks, and electrical transformers; stressed vegetation; and discarded containers. No additional sites were identified during the visual reconnaissance.

3.3 Historical Use Information

The objective of the historical review is to "develop a history of the previous uses of the property and surrounding area, in order to help identify the likelihood of past uses having led to recognized environmental conditions" (ASTM 2021). To evaluate the past uses of the project corridor and to identify any sites with potential to affect the Project, historic aerial photographs were reviewed for direct observation of site conditions through a period of time. These observations may include the locations of tanks, drums, pits, ponds, lagoons, stained/stressed vegetation, or other site development features that can indicate potential contaminant sources.

Aerial photos of 1993, 1999, 2003, 2005, 2006, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, and 2017 were evaluated using Google Earth™ mapping service. The specific site changes are discussed below:

- 1993: Wisner West (Prime Stop Shell Station), Wisner-Pilger High School, Greta Roth Farm, Beverly McKinney Farm, the Pilger Milling Company, and the US Department of Agriculture (USDA) Grain Bins were present.
- 1999: A truck maintenance facility was constructed to the west of the Wisner West (Prime Stop Shell Station) facility.
- 2009: Two grain bins were constructed to the east of the bins on the USDA site.
- 2010: Two additional grain bins were constructed to the east of the bins on the USDA site, for a total of four.
- 2011: Three additional grain bins and silos were noted to the east of the bins on the USDA site. Two grain bins were under construction on the Greta Roth Farm property.
- 2014: The grain bins on the USDA site and surrounding area were destroyed by a tornado on June 16. Piles of grain are noted on the USDA site. Three of the grain bins have been replaced, and pads for four grain bins were noted in an October 2014 aerial photo. Five structures on the Pilger Milling Site were removed. This includes the old service station, a house, and several garages. The pads remain for the garages. Two grain bins were present on the Greta Roth Farm property.
- 2017: The four grain bins were placed on pads and two additional grain bins constructed to the west for a total of nine bins present on the USDA site. The Wisner-Pilger High School has been expanded to the west.

3.4 Regulatory File Review

A regulatory file review was conducted for the sites listed in Table 3. These sites are located adjoining, upgradient of, or near the project footprint. The potential for effects on the Project from these sites was identified during the database review. The review consisted of accessing online files available

from NDEE. The objective of the regulatory file review was to examine available information regarding the extent of the known effects on soil, groundwater, and surface water due to an existing or past release of a hazardous substance or petroleum product, and to evaluate the potential for residual soil and groundwater contamination to remain on the site. The findings of the regulatory file review are included in the following sections.

3.4.1 Wisner-Pilger High School – (NDEE ID – 6776)

Wisner-Pilger High School is located at 801 18th Street in Wisner and is listed in the LST and RCR databases. The site contained two 500-gallon tanks, one contained gasoline and one contained diesel fuel (SFM 1990a). The two tanks were removed from service on July 10, 1990 (SFM 1990a). The gasoline tank and fill lines showed no leakage, and the tank was in good condition (SFM 1990a). The diesel fill lines showed no leakage; however, a hole was found in the tank approximately 6 inches off the bottom of the tank, and contaminated soils were present (SFM 1990a). The soils were overexcavated to a depth of approximately 17 feet bgs (SFM 1990a). The contaminated soils were placed on a lot across the street to be tilled after discussion with NDEE (SFM 1990a). Confirmation sampling results from the bottom of the excavation were below detection limits (SFM 1990a). NDEE provided a No Further Action letter (NDEE 1990a). Groundwater flows from this site toward construction activities; however, the release was in excess of 500 feet from the Project and depth to contamination greater than 17 feet bgs. Through investigation, it is determined that there is a low potential that contamination would be encountered during construction.

3.4.2 Greta Roth Farm – (NDEE ID – 76305)

The Greta Roth Farm is located on N-51 west of Wisner and is listed in the LST and On-Site Water Treatment (OWT) databases. The site operated a 1,000-gallon gasoline tank and a 1,000-gallon diesel tank, which were removed on November 19, 1990 (SFM 1990b). No releases were detected during the tank removal, and NDEE provided a No Further Action letter (NDEE 1991). Because of the lack of contamination and an estimated distance of 630 feet northeast of the Project, the site is considered to have low potential to impact construction activities.

3.4.3 Beverly McKinney Farm – (NDEE ID – 85470)

The Beverly McKinney Farm is located at 412 Road west of Wisner and is listed in the IWM database. The site was listed because of improper disposal of solid waste into two lagoons adjacent to truck washes on the property (NDEE 2003). The complaint indicated that rotten corn, metal barrel, culvert, boards, and plaster were improperly disposed of within the two truck washout lagoons and that additional waste was being buried on site (NDEE 2003). The lagoons were cleaned up and the materials disposed of properly (NDEE 2004). NDEE provided a No Further Action letter, and the case was closed (NDEE 2004). Groundwater flows to the east toward US-275, and the improper disposal was approximately 180 feet northeast of proposed work activities. Based on review of the available information, there is a low potential for releases from this site to impact construction.

3.4.4 Pilger Milling Company – (NDEE ID – 45744)

The former Pilger Milling Company was located at 84096 Highway 15 north of Pilger. The site is listed in the AIR, PCS, and LST databases. The site contained two 6,000-gallon gasoline tanks, one 4,000-gallon diesel tank, dispensers, and piping, all of which were removed from the site on November 6 and 7, 1989 (SFM 1990c). The removal contractor indicated that contamination was present due to overfilling; however, soil vapor screening indicated that contamination was present beneath dispensers, piping, and each of the three tanks (SFM 1990b). The dispensers were located approximately 20 feet south of the current US-275, and the tanks were approximately 56 feet south

(SFM 1990c). The tank pit was overexcavated, and discolored soils were removed until there was no petroleum odor in the remaining soils (SFM 1990c). A No Further Action letter (with contamination present) was provided by NDEE (NDEE 1990b). Based on the proposed design for the Pilger Milling Company property, there will be up to five feet of fill and cuts of up to 4 feet near Station 471+00 near the location of the former dispensers (Kneivel (HDR) email 2023); however, it was believed the contaminated soils were removed based on visual observation to depths of greater than 6 feet, and that the photoionization detector readings were due to the adjacent feedlot, not contaminated soil (NDEE 1990c). Based on proposed construction activities (fill) at the N-15/US-275 intersection and the depth to potential remaining contamination at a level below the proposed fill depth, there is a low potential for activities to encounter contamination from this site. If the design for this corner is to change, the site may require reevaluation.

3.4.5 USDA Grain Bin – (NDEE ID – 86922)

The USDA grain bins are located between East 1st Street and Black Hills Road Trail in Pilger. The site is listed in the SF database. As part of the overall investigation of USDA grain bins across Nebraska, EPA and NDEE sampled groundwater from nearby drinking water wells in Pilger (EPA 1997). Groundwater results did not indicate the presence of chloroform or carbon tetrachloride, which are common grain fumigants (EPA 1997). Based on these findings and the distance of approximately 4,000 feet from the Project, the site is considered a low potential to encounter contamination during construction activities.

3.4.6 Wisner West – (NDEE ID – 60040)

Wisner West (Prime Stop Shell Station) is located at 1801 Avenue E in Wisner. The site is listed in the TL3 and UST databases. No petroleum releases have been documented at the gas station or the attached truck maintenance facility. The site contains one 10,000-gallon diesel tank, one 8,000-gallon diesel tank, two 8,000-gallon gasoline tanks, and one 4,000-gallon gasoline tank, which were installed in 1989. There is a low potential that contamination from this site would be encountered during construction.

3.4.7 Cattleman's Lodge & Suites – (NDEE ID – 65219)

Cattleman's Lodge and Suites (formerly 275 Gas Mart) is located at 1621 Avenue E in Wisner. The site is listed in the TL3, LST, and PRR databases. On June 4, 1998, the SFM evaluated the storage tanks at the request of the new owner (SFM 1998). The new owner indicated that there was a discrepancy in the fuel readings between the tanks, but the tanks were found to pass tight fitness testing (SFM 1998). On June 6, 1999, two 8,000-gallon unleaded gasoline tanks were removed from the site (SFM 1999). No holes or leaks were found in the two tanks or piping, but contamination was present in the tank pit (SFM 1999). Four additional abandoned tanks of unknown condition, size, and content were present on site (SFM 1999). The site was placed on backlog awaiting further investigation (NDEE 1999). A letter from the landowner in 2002 indicated that one of the additional tanks rolled into the excavation during the closure in 1999, and that the building had been torn down and the site graveled (Chadwick 2002). The site was placed on the Orphan Site/LUST Trust Fund Priority List (NDEE 2013). A Risk Based Corrective Action Tier 1 Site Investigation was completed (NDEE 2016). The Tier 1 investigation indicated that three additional tanks had been removed from the site prior to or after the 1999 SFM Closure Assessment, but the removal action was not documented (NDEE 2016). Five monitoring wells were installed, and soil and groundwater samples were collected (NDEE 2016). Soil samples indicated the presence of petroleum contamination at two monitoring wells, and groundwater samples contained petroleum at each of the five monitoring well locations (NDEE 2016). Groundwater was found to range from 10.6 to 12.3 feet bgs and migrating toward the northwest (NDEE 2016). A Tier II drilling program was initiated during the spring of 2022 (NDEE 2022c). RDG was

contacted, and the plan is to complete groundwater gauging, install an additional five (5) monitoring wells, conduct groundwater sampling, and complete a soil vapor survey at the site in the spring of 2023 (RDG personal call 2022). Due to the contamination present at the site, construction activities in the vicinity of this property are proposed to be limited to preparing the subgrade to a maximum depth of 2 feet below grade, with the lateral limits of construction remaining close to the current curb footprint (JEO communication 2023). The streetlight on the northwest corner of 18th and US 275 will need to be moved and conduit installed; however, conduit will be installed using a boring machine, not an open trench (JEO communication 2023). The Tier 1 and Tier 2 investigations determined that contamination is located within the project footprint. Based on the proposed construction activities and the presence of known soil and groundwater contamination, the site is considered to have a medium potential to encounter contamination based on proposed construction activities. Monitoring wells on the property should be avoided based on the below Mitigation Measures found in Section 4.2 (Monitoring Wells). If the design for this corner is to change, the site may require reevaluation.

4.0 Findings and Mitigation Measures

The findings and recommendations of this hazardous materials assessment must be viewed in recognition of certain limiting conditions. Results of this HMR are based on a visual site reconnaissance of current conditions within the project area, a review of readily available standard historical sources, an environmental agency database search, and a regulatory records review.

4.1 Findings

The following paragraph summarizes the findings from the HMR based on diligence activities performed for this Project.

Based on the database search, aerial photography review, site reconnaissance, and the proposed scope of work, there is one medium-potential site where contamination may be encountered during construction. The Cattleman's Lodge & Suites was identified as having a medium potential to affect construction of the Project or to cause a materials management or worker health and safety concern, or both, related to construction of the Project.

4.1.1 Asbestos and Lead Summary

An asbestos summary was completed for all bridge structures. All results were negative for asbestos, except on Structure S275 08742. This structure was positive within the black expansion joint material found at the center of the decking. Requirements for removal and disposal of asbestos are provided in the mitigation section of this report.

Lead is suspected within the paint and other bridge components. Requirements for lead-based paint are provided in the mitigation section of this report.

4.2 Mitigation Measures

The following mitigation measures shall be carried forward through the NEPA documentation and NDOT Green Sheets for this Project:

Commitment for Contaminated Soils

If contaminated soils/water or unexpected wastes are discovered, the contractor shall stop all work within the immediate area. The contractor shall secure the area of the discovery and notify the NDOT Highway Project Manager (HPM). The contractor shall not reenter the discovery area until allowed to do so by the HPM. At the time of discovery, the HPM and contractor shall use the NDOT Unexpected

Waste Action Plan to coordinate appropriate actions. The actions to be carried out by the HPM include, but are not limited to, verifying that the contractor has suspended construction activities in the area of the discovery, contacting the Environmental Section Manager and making an entry into Site Manager that an unexpected waste discovery was made, using the NDOT Unexpected Waste Action Plan Site Discovery Check List to properly document the extent and type of waste, and ensuring that proper disposal of the waste and any required health and safety mitigation is implemented by the contractor. The contractor is required by NDOT's Standard Specification section 107 (legal relations and responsibilities to the public) to handle and dispose of regulated materials in accordance with applicable laws.

Encountering Petroleum Contamination

There is a medium potential for (petroleum) contamination to be present in the (soils/groundwater) at project (Norfolk to Wisner (CN 32319) southwest of the intersection of 17th Street N and US-275; northwest of station 876 + 34.5). The Contractor shall be aware of the possibility of encountering contamination in this area during construction activities and look for signs such as odor and/or discolored soil. The NDOT HPM shall be notified when construction occurs in the suspect area. If contamination is discovered, all work in the immediate area shall be stopped until NDEE and NDOT are notified, and a materials management plan has been developed and approved. The Contractor shall manage the waste in accordance with Title 132, Nebraska Hazardous Waste Regulations. The Contractor is required by NDOT's Standard Specification section 107 (legal relations and responsibilities to the public) to handle and dispose of contaminated material in accordance with applicable laws.

Monitoring Wells

The Cattlemen's Lodge & Suites property currently has a number of active monitoring wells with an additional five (5) monitoring wells scheduled to be installed in spring 2023. Monitoring wells should be avoided and marked in the field as "Do Not Disturb". If a monitoring well is within the area to be excavated or damaged, the NDOT HPM and NDEE Project Manager should be consulted and the need for the well determined for either proper abandonment or replacement. The current monitoring well locations are provided on Figure 3 but the locations of the proposed five (5) new well locations are not currently available.

Asbestos

Bridge structure S275 08742 tested positive for asbestos containing material (ACM) in the black expansion joint at the center of the concrete deck. Because the material is non-friable, the removal will not qualify as an asbestos removal project according to the Department of Health and Human Services (DHHS) Asbestos Control Program Regulations, Title 178 as long as the ACM remains in a non-friable condition. Removal by a licensed asbestos removal contractor is NOT required. The ACM on bridge structure must be removed in a way that allows the ACM to remain in a non-friable condition. The contractor shall contact DHHS prior to removal of the ACM for guidelines on disposal. If the ACM cannot be kept in a non-friable condition upon removal, the Contractor shall use a licensed asbestos abatement firm. A list of Licensed Asbestos Removal Firms can be found at: http://dhhs.ne.gov/Pages/Asbestos.aspx. The ACM shall be disposed of at a landfill approved for handling asbestos. Landfill receipts shall be provided to the NDOT project manager and NDOT environmental section. The contractor's efforts shall be recorded in the Environmental Compliance Database (ECOD).

Demolition work on the bridge structure S275 08742 will require the contractor to submit a written NESHAP (National Emission Standards for Hazardous Air Pollutants) notification to the NDEE. In addition, the DHHS shall also be notified by the contractor, using DHHS Form 5, at least 10 working

days prior to commencement of bridge demolition or renovation activities where ACM was found. The 10-day clock starts with the day the Notification is postmarked, hand delivered, or picked up by a commercial delivery service, such as UPS, FedEx, etc. Faxing documents is prohibited. The NDOT HPM shall be provided copies of said notifications and their submittal date, which shall be recorded in ECOD.

Lead

There is potential for lead-based paint to be found on the bridges' painted components. If the method of removal of the components generates paint debris, the waste shall be handled in accordance with NDOT's Standard Specification for Highway Construction Section 732 (Lead-based Paint Removal) and Title 128, Nebraska Hazardous Waste Regulations. Extreme caution shall be taken to minimize the amount of potential lead-based painted material or debris from causing or threatening to cause pollution of the air, land and waters of the State. The Contractor's implementation plan efforts shall be documented in ECOD.

5.0 References

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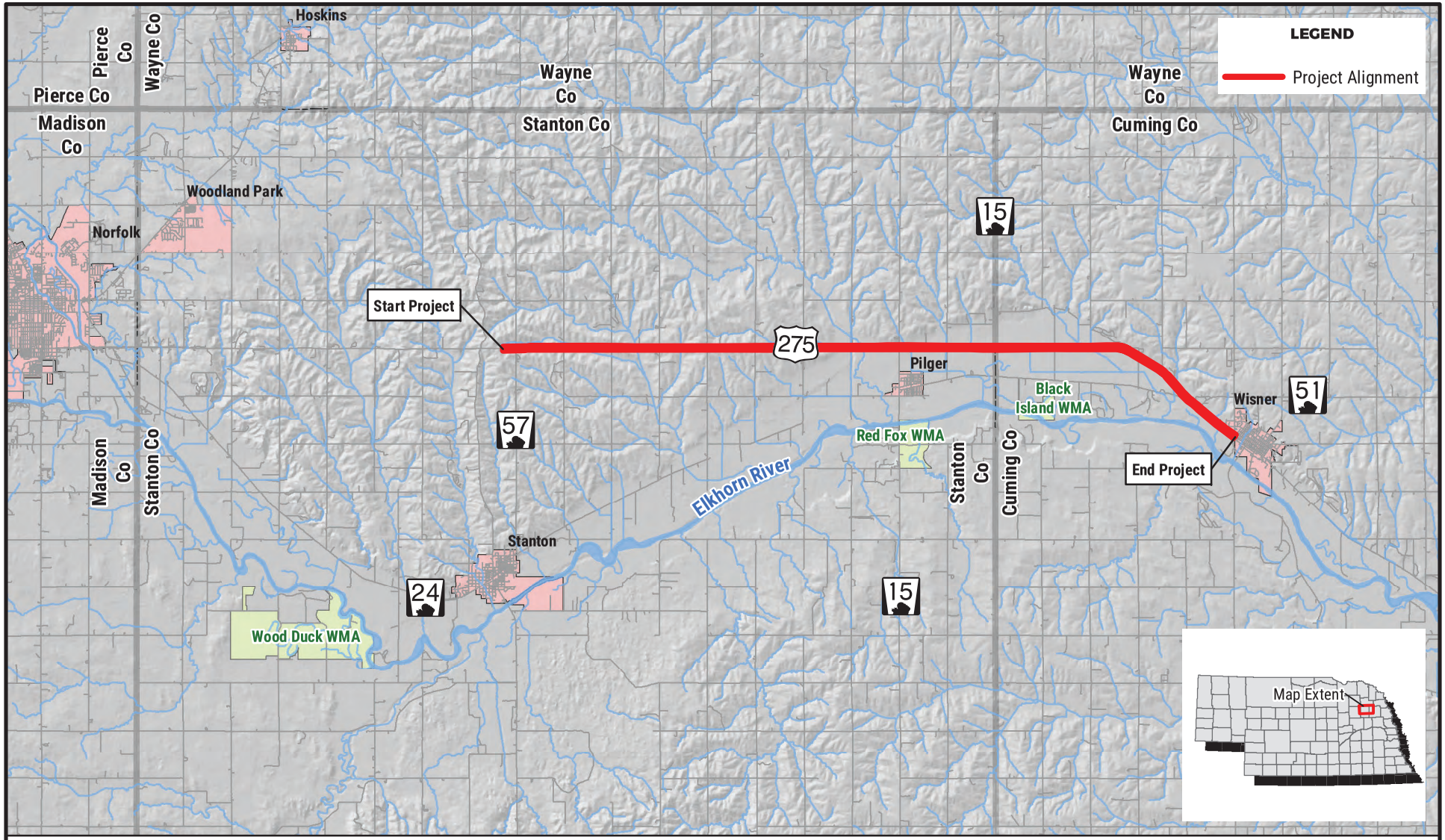
USGS 2022. USGS Historical Topographic Map Explorer. Accessed May 22, 2019. http://historicalmaps.arcgis.com/usgs/.

Appendix A – Project Figures



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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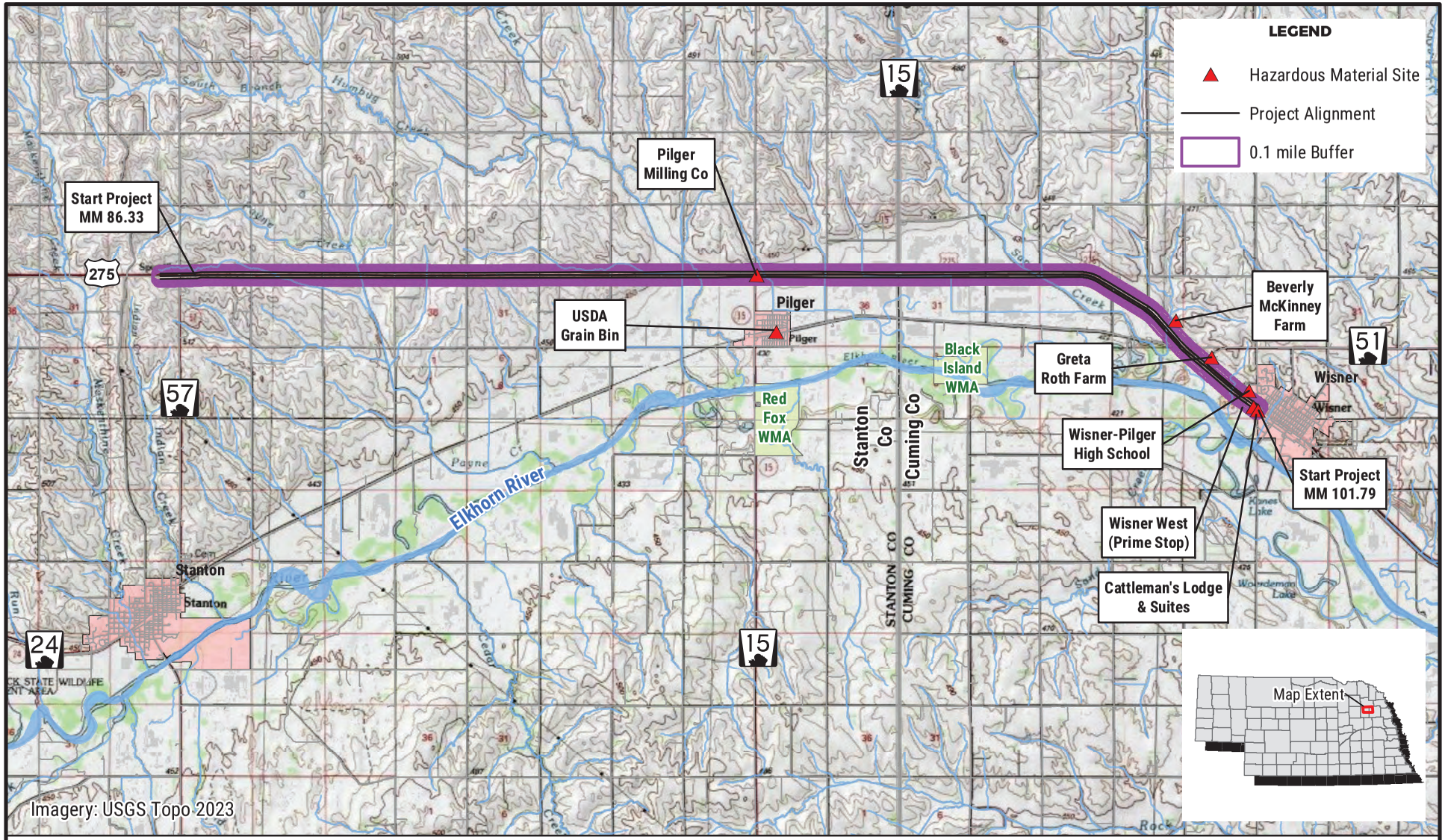
PROJECT LOCATION

NORFOLK - WISNER
PROJ. NO. S-275-6 (1052)
CN 32319

DATE: 1/13/2023

FIGURE 1

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_16_HAZMAT\MAP_8X11_FIG_1_PROJECT_LOCATION_HAZMAT.MXD - USER: CMODRCIN - DATE: 1/13/2023



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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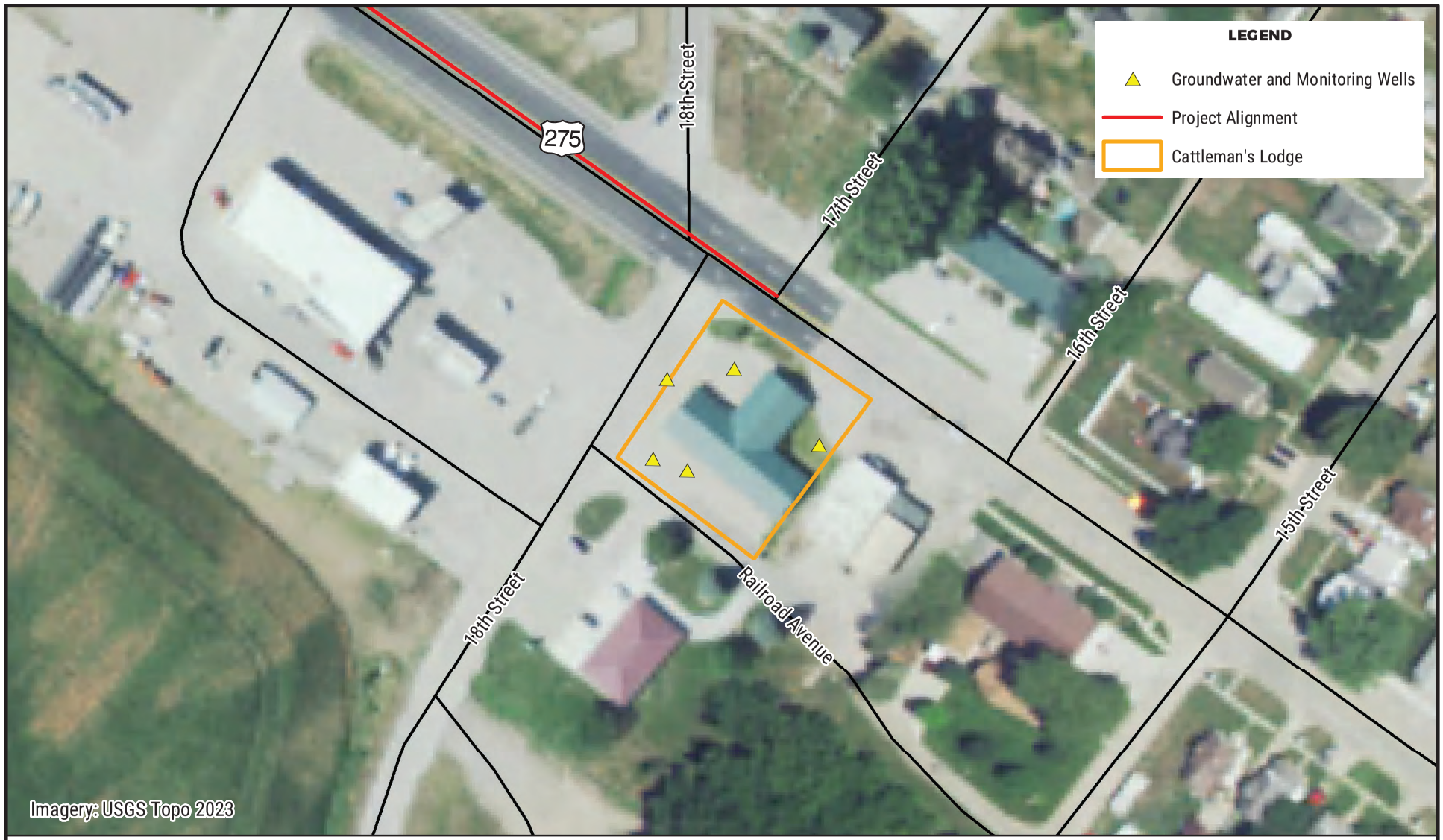
HAZARDOUS MATERIAL SITE

NORFOLK - WISNER
PROJ. NO. S-275-6 (1052)
CN 32319

DATE: 1/13/2023

FIGURE 2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_16_HAZMAT\MAP_8X11_FIG_2_HAZMAT.MXD - USER: CMODRCIN - DATE: 1/13/2023



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 50 100
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CATTLEMAN'S LODGE
NORFOLK - WISNER
PROJ. NO. S-275-6 (1052)
CN 32319

DATE: 1/13/2023

FIGURE 3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_16_HAZMAT\MAP_8X11_FIG_3_CATTLEMANSLODGE.MXD - USER: CMODRCIN - DATE: 1/13/2023

Appendix B – Project Description

Project Description (9/24/19)

This project is 16.0 miles in length and is located on U.S. Highway 275 in Stanton and Cuming Counties, starting 0.30 mile west of the junction of US-275 and Nebraska Highway 57 (N-57) and extending east to 0.25 mile southeast of the west corporate boundary of Wisner. Construction may begin and/or end approximately 500 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement.

The existing roadway on this segment of US-275 generally consists of two 12-foot-wide asphalt overlaid concrete lanes and 10-foot-wide shoulders, of which 8 feet are paved with asphalt.

The improvements on this project consist of expanding the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway on one side of the existing US-275 (called "2+2 Construction" by NDOT). In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 at two locations and Nebraska Highway 51 northwest of Wisner, along with various county roads. Additional work would consist of concrete repairs, culvert work, trench widening, removing and replacing pavement, bridge repairs, bridge replacement, lighting, and signing & striping. Grading will be required for the entire length of this project.

There are eight bridge sized structures located along the project. These include: a tributary of Payne Creek (Structure Number S275 08742), Payne Creek (Structure Number S275 08860), Humbug Creek (Structure Number S275 09309), three tributaries of the Elkhorn River (Structure Numbers S275 09504, S275 09508, S275 10009), a tributary of Sand Creek (Structure Number S275 09644), and Sand Creek (Structure Number S275 09803). The structures would be extended, replaced, or used in place as determined at the Plan-In-Hand. A grade raise of the entire structure is anticipated. Work will be required in the waterway. The limits of pavement replacement will be determined by Roadway Design. Guardrail will be replaced.

This project will be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Some county roads will not be constructed under traffic. Traffic will be detoured utilizing adjacent county roads. Work will not be required on those routes. Additional property rights will be required to build this project. Access to adjacent properties will be maintained during construction but may be limited at times due to phasing requirements. Details will be determined at the construction meeting.

Appendix K

Paleontology

Date: Friday, January 20, 2023

Project: Norfolk-Wisner; (S-275-6(1052)); C.N. 32319
To: Courtney Ziska, NDOT
From: Shane Tucker, Highway Archeology Program
Subject: Evaluation of Impact to Paleontological Resources

Evaluation of Impact to Paleontological Resources
Norfolk-Wisner (S-275-6(1052))
C.N. 32319

In the early 2000s, the Highway Paleontology Program recovered fossil snails and isolated vertebrate remains from freshly-made roadcuts on the Norfolk East (US-275) Project between Norfolk and the junction of US-275 and N-57. Construction exposed portions of the Peoria loess, Loveland loess, and sand and gravels associated with glacial outwash. These specimens included two ancient prairie dog lower jaws and isolated snake vertebrae.

N-57 to Wisner (US-275) Project
The University of Nebraska State Museum has five vertebrate paleontology localities within one-mile (either direction) of US-275. There are three additional sites within 2-miles (either direction) of US-275. The majority of these sites are from ancient sand and gravel layers exposed in the bluffs above the floodplain. Additional fossils were recovered from commercially-mined gravel operations on the floodplain of the Elkhorn River.

Wisner to West Point (US-275) Project
The University of Nebraska State Museum has eight vertebrate paleontology localities within one-mile (either direction) of US-275. There is one additional site within 2-miles (either direction) of US-275. All of these sites are associated with commercially-mined gravel operations on the floodplain of the Elkhorn River.

Potential Fossil Yield for Rock Layers
Fossil abundance in any given rock unit throughout this corridor is directly tied to the origin of the rock units. Wind-blown loess deposits (Peoria loess and Loveland loess) have moderate potential whereas fluvial sand and gravels (Pleistocene and Holocene in age) have a moderate to high potential yield for paleontological resources. Both of these lithologies are present within the limits of the project.

Significance of the Fossils
The fossils from this particular area are extremely important providing the best evidence for faunal and climate change for the last part of the Ice Age (10,000 years to 1.2 million) in Nebraska. The most significant specimens collected within this corridor are an upper and lower molar from an extremely large mammoth. This one million-year-old behemoth may have been the largest land mammal to walk in North America regardless of time interval.

It is nearly impossible to determine exactly where fossil resources will be encountered due to the vegetative cover and/or the nature of preservation. Preliminary pedestrian surveys planned for 2020 were cancelled due to Covid. The majority of our mitigation efforts occurring during construction. The Program has found it beneficial to leave open wind-blown loess exposures for additional weathering with appropriate erosion control measures in place (i.e. silt fence) to maximize collecting efforts. We discovered isolated elements and several dozen partial skeletons of ground squirrels, gophers, mice, and snakes using similar techniques on the Arnold East (N-92) and North Loup-Ord (N-11) Projects.

Preliminary faunal list from Elkhorn Valley (Pleistocene/Holocene) Deposits

Paramylodon harlani (Ground sloth)*

Megalonyx jeffersonii (Ground sloth)*

Mammuthus columbi (Columbian mammoth)*

Mammuthus meridionalis (Early mammoth)*

Mammut americanum (American mastodon)*

Equus sp. (Ice Age horse)*

Camelops sp. (Camel)*

Rangifer sp. (Caribou)*

Cervalces scotti (Stag-moose)*

Symbos cavifrons (Woodland musk-ox)*

Cervus elaphus (Elk)

Odocoileus sp. (Deer)

Platygonus sp. (Peccary)

Bison antiquus (Large bison)*

Bison bison (Bison)

Canis dirus (Dire wolf)*

Canis latrans (Coyote)

Lynx rufus (Bobcat)

Ursus americanus (Black bear)

Arctodus simus (Short-faced bear)*

Taxidea taxus (Badger)

Procyon lotor (Raccoon)

Erethizon dorsatum (Porcupine)

Ondatra zibethicus (Muskrat)

Castoroides ohioensis (Giant beaver)*

(* = extinct species)

Appendix L

Floodplains

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

Memorandum

DATE **August 28, 2023**

TO Ben Trenne; Courtney Ziska

FROM Patrick Hartman, P.E., JEO Consulting Group
Matt McConville, P.E., HDR

THRU Julie Ramirez, P.E. and Kirk Harvey, P.E.

SUBJECT PQS Floodplain Memorandum: Norfolk - Wisner, 275-6(1052), CN 32319

The Norfolk - Wisner project 275-6(1052), CN 32319, has been reviewed for its impact to floodplains within the State of Nebraska.

FLOODPLAIN ENCROACHMENT REVIEW

Project is located within:

County(ies):	Stanton, Cuming
Floodplain Community(ies):	Stanton County, Village of Pilger, Cuming County, City of Wisner

Community(ies) are:

Mapped?:	Yes
Participating?:	Yes
State Minimum Standards for Mapping?:	No

Project Overlaps:

Mapped Base Floodplain?:	Yes	Floodplain Designations(s): A, AE
Mapped Floodway?:	No	
State Minimum Standards Base Floodplain?	Not Applicable	

Floodplain Statement:
Review of floodplain mapping shows that the project overlaps upon one or more mapped Base Floodplains. Certification(s) will be required from the Roadway Design Hydraulics Section and/or the Bridge Hydraulics Section confirming that the project conforms to floodplain regulations. Certifications will be forwarded to the Technical Resources Unit for inclusion in a Permit Application.

Certification Requirements:

Floodplain Permit required from:	Stanton County, Village of Pilger, Cuming County, City of Wisner
State Minimum Standards Community(ies):	None

Floodplain Encroachments:

- Tributary to Payne Creek, Stanton County, RP 87.420
- Payne Creek, Stanton County, RP 88.600
- Humbug Creek, Stanton County, 93.090
- Tributary to Elkhorn River, Stanton County, RP 95.040
- Tributary to Elkhorn River, Stanton County, RP 95.080
- Tributary to Elkhorn River, Stanton County, RP 95.610
- Tributary to Sand Creek, Stanton County, RP 96.100
- Sand Creek, Cuming County, RP 97.78 to RP 98.47
- Elkhorn River, Stanton County, RP 95.610 to County Line
- Elkhorn River, Cuming County, RP 100.46 to RP 100.51

Will the Project cause a rise in the Base Flood Elevation (BFE):

More than one (1) foot in a Regulatory Base Floodplain?	No
Any rise in a Regulatory Floodway?	No
More than one (1) foot in a State Minimum Standards Floodplain?	Not Applicable

Floodplain Statement:
It is anticipated that this project will be certified to meet floodplain regulations. It is not anticipated to cause greater than one foot of rise in the Base Flood Elevation within a Base Floodplain, any rise in the Base Flood Elevation within a Regulatory Floodway, nor increase the potential for property loss and hazard to life.

Functionally Dependent Use in Base Floodplain:

Project overlaps a floodplain at a location without a functionally dependent use?	Yes

Floodplain Statement:
There are locations along the project that overlap a base floodplain and are not functionally dependent. The following floodplain NFIP/FHBM maps were reviewed:

Panel 31167C0050C, Dated 09/30/2004
Panel 31167C0065C, Dated 09/30/2004
Panel 31167C0068C, Dated 09/30/2004
Panel 31167C0070C, Dated 09/30/2004
Panel 3104270001B, Dated 04/01/1996

23 CFR SECTION 650.111 REVIEW

650.111(b)

Are there Base Floodplains located Longitudinal (parallel) to the project?	Yes
Is any of the project on Existing Alignment?	Yes
Does the Existing Alignment encroach upon a Longitudinal (parallel) Base Floodplain?	Yes
Is any of the project on New Alignment?	No
Does the New Alignment encroach upon a Longitudinal (parallel) Base Floodplain?	Not Applicable

Floodplain Statement:
There is a longitudinal (parallel) encroachment located along the project, which is described below.

Based on the scope of work being completed on alignment, there would be no reasonable and practicable alternative to this longitudinal encroachment.

- Elkhorn River, Stanton County, RP 95.610 to County Line
- Elkhorn River, Cuming County, RP 100.46 to RP 100.51

650.111 (c) (1)
Project increases the potential for loss of life or property? No

Floodplain Statement:
This action would not increase the potential for loss of life or property.

650.111 (c) (2)
Project impacts the natural and beneficial floodplain values? No

Floodplain Statement:
There are no significant encroachments associated with this Project and this Project will not have an impact on the natural and beneficial floodplain values.

650.111 (c) (3)
Project supports probable incompatible floodplain development? No

Floodplain Statement:
The proposed improvements on this Project will maintain local and regional access to existing municipal, rural, and agricultural areas and will not create new access to undeveloped lands. Therefore, this highway improvement Project will not support probable incompatible floodplain development.

650.111 (c) (4)
Project results in a significant risk of impact to the base floodplain or environment? No

Floodplain Statement:
Based on assessment of the significance of the risk or environmental impact, no additional measures are necessary to minimize floodplain impacts associated with the action.

650.111 (c) (5)
Floodplain Statement:
There will be limited impacts to the natural and beneficial floodplain values of the floodplains along this Project. Since there will be temporary soil disturbance during construction activities, sediment and erosion control best management practices will be utilized during construction and disturbed areas will be seeded following construction.

650.111 (d)

Does a significant encroachment occur as a result of the project?	No
Does the project support incompatible floodplain development?	No

Floodplain Statement:

There is no significant encroachment in to a base floodplain. This project does not result in a base flood causing significant potential interruption or termination of this transportation facility, which is needed for emergency vehicles or a community's only evacuation route. It also does not result in a significant risk or potential for loss of life or property due to the base flood. This project also does not result in a substantial adverse impact on natural and beneficial floodplain values. An alternatives analysis related to the significance of encroachment in to a base floodplain is not warranted.

This highway improvement project will maintain existing local and regional access to municial, rural, and agricultural areas, and does not support incompatible floodplain development. An alternatives analysis related to the incompatible floodplain development is not warranted.

Appendix M

Water Quality

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DEPARTMENT OF TRANSPORTATION

Water Quality PQS Memorandum

DATE April 25, 2023

TO Courtney Ziska, NDOT EDU

FROM Blayne Renner, NDOT RDCU

SUBJECT Water Quality PQS Memo
Project No: S-275-6(1052)
Control No: 32319
Project Name: Norfolk - Wisner

A desktop review was completed on 4/25/2023

Are there any 303(d) listed impaired waters within or adjacent to (0.5 mile) the project study area? (2020 Integrated Report)

☐ Yes ☒ No

Does the project occur within an MS4 community?

☐ Yes ☒ No

Community: N/A

Does the project require a NPDES construction storm water permit (qualifying ground disturbance of 1 acre or more)?

☒ Yes ☐ No

Describe resources, and <u>potential</u> impacts. (Include the name of the listed impaired waterbody, segment number, impaired uses, and cause of the impairment. If 303(d) listed impaired waters are identified, include a map of the locations as Attachment 1):
Category 5, 303d listed, impaired waters are not located within or adjacent to the project study area. No impacts are anticipated.

Describe any coordination conducted to date with officials/agencies (Include: Any coordination with NDEE or USEPA): N/A

<u>Impaired Waters Commitments:</u>

☒ Project specific commitments are not required to address impacts to 303(d) listed Impaired Waters

☐ The following project specific impaired waters commitments are required to address impacts to 303(d) listed Impaired Waters:
N/A

CWA Section 402 Commitments

☐ This project does not require a Construction Stormwater Permit or a Storm Water Pollution Prevention Plan (SWPPP). Temporary water pollution prevention practices (including sediment and erosion control measures) are still required by Nebraska State Title 119. The Contractor shall exercise every reasonable precaution throughout the life of the contract to prevent sedimentation within rivers, streams, impoundments (lakes, reservoirs, etc.), the project site, and adjacent property. (Contractor)

☒ This project requires a Construction Stormwater Permit and that a Storm Water Pollution Prevention Plan (SWPPP) be maintained for the project. The Contractor shall understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with activity from the construction site. For reference, the general permit is posted on the Department's website. (Contractor)

☐ This project occurs within an MS4 community. The project will be evaluated for the potential need to incorporate Storm Water Treatment Facilities in compliance with NDOTs MS4 permit.

Project Description Revision Date:

12/22/2022

Appendix N

Wetlands and Water Resources

Norfolk - Wisner
Wetland Delineation Report

Project Number: S-275-6(1052)
Control Number: 32319

November 2020

NEBRASKA

Good Life. Great Journey.

DEPARTMENT OF TRANSPORTATION

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B Wetland Determination Data Forms
C Wetlands in Agricultural Settings Desktop Data
D Site Photographs

1.0 Introduction

The Nebraska Department of Transportation (NDOT) is proposing to expand U.S. Highway 275 (US-275) from a two-lane highway to a four-lane expressway[1] along a 15.5-mile segment from just east of Nebraska Highway 57 to just northwest of Wisner, Nebraska (the Project). All Project activities would occur in Stanton and Cuming Counties, as shown in Appendix A, Figure 1 – Project Location. This Wetland Delineation Report documents the occurrence of wetlands and water resources within the project boundary and presents considerations of Clean Water Act Section 404 jurisdiction.

2.0 Methodology

2.1 Standard (Non-Agricultural) Wetlands

On behalf of NDOT, HDR conducted wetland and water resource delineations on May 6 – 10, 2019 and August 15, 2019, in accordance with the *1987 Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Environmental Laboratory, August 2010), and the *NDOT Wetland and Water Resource Procedure Document* (NDOT, December 2017). The Study Area (Appendix A, Figure 2 – Key Map) generally extends 275 feet on either side of US-275. It includes 400-foot wide corridors extending approximately 700 feet along Nebraska Highways 15 and 51, as well as 300-foot wide corridors which extend approximately 700 feet along intersecting county roads.

Prior to field delineations, a desktop survey was conducted using National Wetlands Inventory (NWI) maps, the National Hydrography Dataset (NHD), and U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) color aerial photographs to identify possible wetlands and water resources.

Sample points and wetland boundaries were mapped in the field using global positioning system (GPS) technology and were classified according to *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., December 1979) and associated Nebraska Wetland Subclasses. Vegetation was classified according to *North American Digital Flora: National Wetland Plant List* (Lichvar et al., 2016). Non-wetland water resources (waterways/ponds) were also identified. A "Wetland Determination Data Form – Midwest Region" was completed for each sample point, including uplands. These forms are presented in Appendix B. Lastly, photographic documentation of observed wetlands and water resources was collected and is included in Appendix D.

2.2 Wetlands in Agricultural Settings

In association with the desktop survey and specific to the agricultural areas within the Study Area, wetland determinations were completed in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Environmental Laboratory, August 2010) *and Hydrology Tools for Wetland Identification and Analysis* (NRCS, 2015). Prior to field determinations, a desktop survey was conducted using eleven years of National Agriculture Imagery Program (NAIP) color imagery (USDA, 2014) to identify farmland that displayed wetland signatures (see Appendix C). The eleven years of imagery analyzed for Stanton County were 2003, 2004, 2005, 2006, 2007, 2009, 2010, 2012, 2014, 2016, and 2018. For Cuming County, the 2012 imagery displays dryer than average conditions, with the remaining years of aerial imagery displaying normal precipitation. For Stanton County, the 2006, 2007, and 2016 aerial imagery display dryer than average conditions, with 2014

[1] An expressway is a divided highway for through traffic with full or partial control of access with interchanges at major intersections and at-grade intersections at designated minor public road intersections (NDOR 2006).

aerial imagery displaying wetter than average conditions. Hydrology conditions for 2003 aerial imagery could not be determined due to insufficient rainfall data. The remaining years of aerial imagery for Stanton County display normal precipitation.

Areas that displayed wetland signatures in six or more of the eleven selected years of NAIP imagery were identified as potential wetlands and geospatially referenced using Geographic Information Systems (GIS).

Following the desktop survey, HDR conducted ground-truthing in May 2019 to determine the presence or absence of hydric soil for each of the potential wetlands in agricultural settings (WIAS). Hydric soil determinations were made and a Wetland Determination Data Form was completed for each sample point. These forms are presented in Appendix B. Sample points were mapped in the field using global positioning system (GPS) technology. Photographic documentation of the sampled areas is included in Appendix D.

2.3 Jurisdictional Determination

Based on interpretation of the Rule, wetlands were analyzed and classified as jurisdictional or non-jurisdictional based on the rationale detailed in the 2020 USACE Interim Approved Jurisdictional Determination Form User Manual (the AJD User Manual; USACE, 2020). Under the AJD User Manual, jurisdictional wetlands and Waters of the U.S. are classified under the (a) designation. Non-jurisdictional wetlands and aquatic resources are classified under the (b) designation. The following classifications from the AJD User Manual are applicable to the analysis:

- (a)(4) Wetland abuts an (a)(1)-(a)(3) water "on at least one point or side."
- (b)(1) Lake/pond or impoundment
    - "does not contribute surface water flow directly or indirectly to an (a)(1) water and is not inundated by flooding from an (a)(1)-(a)(3) water in a typical year: Natural lakes and ponds, and impoundments of jurisdictional waters that lack a direct or indirect surface water connection to downstream (a)(1) waters in a typical year and are not inundated by flooding by an (a)(1), (2) or (3) water in a typical year are not jurisdictional according to this specific type of (b)(1) exclusion for documentation purposes."
- (b)(1) Non-adjacent wetland
    - "Wetlands that meet the definition of paragraph (c)(16) and are not (a)(4) waters are not jurisdictional according to this specific type of (b)(1) exclusion for documentation purposes."
- (b)(3) Ephemeral feature
    - "Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool"
- (b)(5) Ditch
    - "A ditch that is not an (a)(1) or (a)(2) water, and those portions of a ditch constructed in an (a)(4) water that do not satisfy the conditions of (c)(1): A water that meets the definition of "ditch" and is not an (a)(1) or (a)(2) water, or is not constructed in an (a)(4) water is excluded according to the (b)(5) exclusion. A ditch that is constructed in an (a)(4) water is excluded according to the (b)(5) exclusion where the ditch itself does not meet the conditions of (c)(1) and has no more than ephemeral flow conditions."

- (b)(8) Artificial lake/pond
    - "Artificial lake/pond constructed or excavated in upland or a non-jurisdictional water, so long as the artificial lake or pond is not an impoundment of a jurisdictional water that meets (c)(6): The exclusion includes a diverse range of artificial lakes, ponds, and certain impoundments constructed or excavated in upland or in non-jurisdictional waters, and the examples in the regulatory text of water storage reservoirs, stock watering ponds and the like are not an exclusive list of excluded (b)(8) waters. An artificial lake or pond is excluded according to the (b)(8) exclusion if it was constructed or excavated wholly in upland or in non-jurisdictional waters and it is not an impoundment that meets the conditions of (c)(6)."

3.0 Results

Standard Wetlands

Results of the May 2019 wetland delineation and August 2019 site visit are detailed in Table 1 and Appendix A, Figure 3 – Wetlands and Water Resources. Results are further detailed in Appendix B, Wetland Determination Data Forms and Appendix D, Site Photographs.

Wetlands In Agricultural Settings

The 2019 desktop survey identified one-hundred thirty (130) potential WIAS. During the May 2019 site visit, additional ground-truthing points were taken to aid in establishing WIAS boundaries. As a result, the boundaries of the previously identified potential WIAS were expanded, and often combined. These WIAS are included in Table 2 and Appendix A – Figure 3. Appendix C (Figures 4-2 through 4-12) displays the observed wet signatures in each of the eleven years of aerial imagery analyzed. Appendix C, Figure 4-13 shows areas that displayed wet signatures in a majority of the years of aerial imagery analyzed, as well as wet signatures that were observed in the most recently available Google Earth imagery for the Study Area.

Water Resources

Water resources are listed in Table 3 and are further depicted in Appendix A, Figure 3 – Wetland and Water Resources and Appendix D, Site Photographs. They include Payne Creek, Humbug Creek, and Sand Creek.

Table 1. Wetlands

Sample ID[1]	Figure 3 Sheet No.	Wetland Classification		Area (acres)	Considered Jurisdictional	Jurisdictional Category[3]
		Cowardin[2]	Nebraska Subclass			
S-001	1	PEMA/C	Floodplain Depression	0.80	No	(b)(1) Non-Adjacent Wetland
S-002	1	PSSA	Floodplain Depression	0.37	No	(b)(1) Non-Adjacent Wetland
S-004	1	PFOA	Floodplain Depression	0.15	No	(b)(1) Non-Adjacent Wetland
S-009	2	PEMA/C	Riverine Channel	0.03	Yes	(a)(4) Abutting Wetland
S-010	2	PSSA	Floodplain Depression	0.06	No	(b)(1) Non-Adjacent Wetland
S-012	2	PEMA/C	Floodplain Depression	0.18	No	(b)(1) Non-Adjacent Wetland
S-016	2	PEMF	Riverine Channel	0.01	Yes	(a)(4) Abutting Wetland
S-018	3	PEMA/C	Floodplain Depression	0.02	No	(b)(1) Non-Adjacent Wetland
S-025	4	PEMA/C	Riverine Channel	0.01	Yes	(a)(4) Abutting Wetland
S-029	4	PEMA/C	Floodplain Depression	0.06	No	(b)(5) Ditch
S-030	4	PEMA/C	Floodplain Depression	0.05	No	(b)(5) Ditch
S-039, S-045	4	PEMA/C	Floodplain Depression	0.22	Yes	(a)(4) Abutting Wetland
S-043	4	PEMA/C	Riverine Channel	0.09	Yes	(a)(4) Abutting Wetland
S-048, S-051, S-054	4	PEMA/C	Floodplain Depression	4.04	Yes	(a)(4) Abutting Wetland
S-049	4	PEMA/C	Floodplain Depression	0.02	Yes	(a)(4) Abutting Wetland
S-053	4	PEMA/C	Floodplain Depression	1.14	Yes	(a)(4) Abutting Wetland
S-056	4	PEMA/C	Floodplain Depression	0.001	No	(b)(1) Non-Adjacent Wetland
S-061, S-062	4	PEMA/C	Floodplain Depression	0.48	Yes	(a)(4) Abutting Wetland
S-065	4	PEMA/C	Riverine Channel	0.02	Yes	(a)(4) Abutting Wetland
S-073	5	PEMA/C	Floodplain Depression	0.04	Yes	(a)(4) Abutting Wetland
S-076	5	PEMA/C	Floodplain Depression	0.01	Yes	(a)(4) Abutting Wetland
S-087	6	PEMA/C	Riverine Channel	0.05	Yes	(a)(4) Abutting Wetland
S-096	7	PEMA/C	Floodplain Depression	0.12	No	(b)(1) Non-Adjacent Wetland
S-102	8	PEMA/C	Riverine Channel	0.03	Yes	(a)(4) Abutting Wetland
S-140	12	PEMA/C	Riverine Channel	0.21	Yes	(a)(4) Abutting Wetland
S-149	13	PEMA/C	Riverine Channel	0.02	Yes	(a)(4) Abutting Wetland

Sample ID[1]	Figure 3 Sheet No.	Wetland Classification		Area (acres)	Considered Jurisdictional	Jurisdictional Category[3]
		Cowardin[2]	Nebraska Subclass			
S-151	13	PSSA	Riverine Channel	0.004	Yes	(a)(4) Abutting Wetland
S-153	13	PEMA/C	Riverine Channel	0.06	Yes	(a)(4) Abutting Wetland
S-157	14	PEMA/C	Riverine Channel	0.06	Yes	(a)(4) Abutting Wetland
S-178	16	PEMA/C	Floodplain Depression	0.15	No	(b)(5) Ditch
S-180, S-182	16	PEMF	Floodplain Depression	0.42	No	(b)(5) Ditch
S-187, S-191	17	PEMA/C	Floodplain Depression	0.11	No	(b)(5) Ditch
S-192	17	PEMA/C	Riverine Channel	0.15	No	(b)(1) Non-Adjacent Wetland
S-204	17, 18	PEMA/C	Riverine Channel	0.51	Yes	(a)(4) Abutting Wetland
S-206	17, 18	PEMA/C	Riverine Channel	0.14	Yes	(a)(4) Abutting Wetland
S-208	18	PEMA/C	Floodplain Depression	0.86	No	(b)(5) Ditch
S-222	18	PEMA/C	Riverine Channel	0.01	No	(b)(1) Non-Adjacent Wetland
S-225	18	PEMA/C	Riverine Channel	0.03	No	(b)(1) Non-Adjacent Wetland
S-228	18, 19, 20, 21	PEMA/C	Riverine Channel	1.57	No	(b)(5) Ditch
S-233, S-240	19	PEMA/C	Floodplain Depression	0.83	No	(b)(5) Ditch
S-234	19	PEMA/C	Floodplain Depression	0.09	No	(b)(1) Non-Adjacent Wetland
S-242	19, 20	PEMA/C	Floodplain Depression	1.14	No	(b)(5) Ditch
S-245	19	PSSA	Riverine Channel	0.01	No	(b)(1) Non-Adjacent Wetland
S-248	19, 20, 21	PEMA/C	Riverine Channel	1.45	No	(b)(1) Non-Adjacent Wetland
S-253	20	PEMA/C	Floodplain Depression	0.08	No	(b)(1) Non-Adjacent Wetland
S-255, S-264	20, 21	PEMA/C	Floodplain Depression	1.09	No	(b)(5) Ditch
S-285	22	PEMA/C	Floodplain Depression	0.48	No	(b)(5) Ditch
S-308	23	PEMA/C	Riverine Channel	0.02	No	(b)(1) Non-Adjacent Wetland
S-309	23	PEMA/C	Riverine Channel	0.01	No	(b)(1) Non-Adjacent Wetland
S-312	23	PEMA/C	Floodplain Depression	0.55	No	(b)(5) Ditch
S-317	23	PEMA/C	Floodplain Depression	0.06	No	(b)(1) Non-Adjacent Wetland
S-347	28	PFOA	Riverine Channel	0.83	Yes	(a)(4) Abutting Wetland
S-348, S-349	28	PEMA/C	Riverine Channel	0.35	Yes	(a)(4) Abutting Wetland

Sample ID[1]	Figure 3 Sheet No.	Wetland Classification		Area (acres)	Considered Jurisdictional	Jurisdictional Category[3]
		Cowardin[2]	Nebraska Subclass			
S-351	28	PEMA/C	Floodplain Depression	0.16	No	(b)(5) Ditch
S-357	28	PEMA/C	Floodplain Depression	0.04	No	(b)(1) Non-Adjacent Wetland
S-362	28	PEMA/C	Floodplain Depression	0.13	No	(b)(5) Ditch
S-379	30, 31	PEMA/C	Floodplain Depression	0.09	No	(b)(5) Ditch
			Total PEMA/C	17.87	7.53	-
			Total PEMF	0.43	0.01	-
			Total PSSA	0.44	0.004	-
			Total PFOA	0.98	0.83	-
			TOTAL	19.72	8.37	-

Notes:

1 Sample Points not listed did not meet wetland criteria.

2 PEMA/PEMC = Palustrine Emergent Temporarily/Seasonally Flooded; PEMF = Palustrine Emergent Semi-Permanently Flooded; PSSA = Palustrine Scrub-Shrub Temporarily Flooded; PFOA = Palustrine Forested Temporarily Flooded.

3 Jurisdictional category is based on numbering in the *Interim Approved Jurisdictional Determination Form User Manual* (USACE, 2020)

Table 2. Wetlands In Agricultural Settings

Sample ID	Figure 3 Sheet No.	Years Signatures Present[1]	Wetland (Y/N)[2]	Area (acres)	Considered Jurisdictional	Jurisdictional Category[3]
S-014	2	2005, 2006, 2009, 2010, 2014, 2016, 2018	Y	0.03	No	(b)(1) Non-Adjacent Wetland
S-017	2	2003	N	--	N/A	N/A
S-020	3	2003, 2012	N	--	N/A	N/A
S-021	4	--	N	--	N/A	N/A
S-022, S-023, S-024, S-027	4	2003, 2009, 2010, 2012, 2014, 2016, 2018	N	--	N/A	N/A
S-028	4	2003, 2005, 2010	N	--	N/A	N/A
S-034 – S-037, S-040 – S-042, S-046	4	2003, 2005, 2007, 2009, 2010, 2014, 2018	Y	6.89	Yes	(a)(4) Abutting Wetland
S-063, S-069	4, 5	2003, 2005, 2007, 2012, 2014, 2018	Y	0.29	Yes[4]	(a)(4) Abutting Wetland
S-064	4	2009, 2018	N	--	N/A	N/A
S-068	5	2010	N	--	N/A	N/A
S-070	5	2007, 2009, 2010, 2014, 2016, 2018	Y	0.07	Yes	(a)(4) Abutting Wetland
S-071	5	2003, 2004, 2005, 2006, 2009, 2012	N	--	N/A	N/A
S-072	5	2003, 2004, 2005, 2006, 2009, 2012	N	--	N/A	N/A
S-075	5	2003, 2004, 2005, 2006, 2010, 2014, 2016, 2018	Y	0.05	No	(b)(1) Non-Adjacent Wetland
S-078	5	2003, 2004, 2005, 2006, 2010, 2014, 2018	Y	0.02	No	(b)(1) Non-Adjacent Wetland
S-080	5	2014	N	--	N/A	N/A
S-081	6	--	N	--	N/A	N/A
S-082	6	2012, 2018	N	--	N/A	N/A
S-083	6	2003, 2004	N	--	N/A	N/A
S-084	6	2003, 2004	N	--	N/A	N/A
S-090	6	2003, 2004, 2005, 2006, 2007, 2010, 2012, 2014, 2016, 2018	N	--	N/A	N/A
S-091	6	2003, 2004, 2005, 2006, 2007, 2009, 2012, 2014, 2016, 2018	N	--	N/A	N/A
S-092, S-094	6, 7	2009, 2010, 2012, 2014, 2016	Y	0.59	No	(b)(1) Non-Adjacent Wetland

Sample ID	Figure 3 Sheet No.	Years Signatures Present[1]	Wetland (Y/N)[2]	Area (acres)	Considered Jurisdictional	Jurisdictional Category[3]
S-093	7	--	N	--	N/A	N/A
S-095	7	2009, 2014	N	--	N/A	N/A
S-098	7	2003, 2004, 2005, 2006, 2007, 2009, 2010, 2014	N	--	N/A	N/A
S-099	8	--	N	--	N/A	N/A
S-100	8	2003, 2005, 2006, 2007, 2009, 2010	Y	0.02	No	(b)(1) Non-Adjacent Wetland
S-101	8	2003, 2014	N	--	N/A	N/A
S-104, S-106, S-108, S-109	8	2003, 2004, 2005, 2006, 2007, 2009, 2010, 2012, 2014	Y	0.88	Yes	(a)(4) Abutting Wetland
S-107	8	2003, 2005, 2009, 2014	N	--	N/A	N/A
S-110	8	2010, 2018	N	--	N/A	N/A
S-111	8	2007, 2009, 2014	N	--	N/A	N/A
S-112	8, 9	2007, 2009, 2010, 2014	Y	0.22	No	(b)(1) Non-Adjacent Wetland
S-113	9	2007	N	--	N/A	N/A
S-114	9	2006, 2007	N	--	N/A	N/A
S-115	9	2010	N	--	N/A	N/A
S-116	9	2003, 2004, 2006, 2007, 2009, 2018	N	--	N/A	N/A
S-117	9	2007, 2009	N	--	N/A	N/A
S-118	9	2007	N	--	N/A	N/A
S-119	9	2007, 2012, 2014, 2016, 2018	N	--	N/A	N/A
S-120	9	2018	N	--	N/A	N/A
S-121	9	2004, 2010	N	--	N/A	N/A
S-122	10	2010	N	--	N/A	N/A
S-123	10	2010, 2014	N	--	N/A	N/A
S-124	10	2012	N	--	N/A	N/A
S-125	10	2010, 2012, 2018	N	--	N/A	N/A
S-126	10	2012, 2014, 2018	N	--	N/A	N/A
S-127	10	2009	N	--	N/A	N/A

Sample ID	Figure 3 Sheet No.	Years Signatures Present[1]	Wetland (Y/N)[2]	Area (acres)	Considered Jurisdictional	Jurisdictional Category[3]
S-128	10	2003, 2004, 2005, 2009, 2010, 2012, 2014, 2016	N	--	N/A	N/A
S-129	11	2003, 2018	N	--	N/A	N/A
S-130	11	2010	N	--	N/A	N/A
S-131	11	2003, 2004, 2005, 2009, 2010, 2012, 2014, 2016	N	--	N/A	N/A
S-132	11	2010, 2012, 2016	Y	0.26	No	(b)(1) Non-Adjacent Wetland
S-133	11	2009, 2010	N	--	N/A	N/A
S-134	11	2019	N	--	N/A	N/A
S-135	11	2004, 2010, 2018	N	--	N/A	N/A
S-136	11	2003	N	--	N/A	N/A
S-137	11	2004, 2005, 2010	N	--	N/A	N/A
S-138	11	2004, 2005, 2010	N	--	N/A	N/A
S-143	12	2004, 2007, 2012	N	--	N/A	N/A
S-144	12	2004, 2005, 2006, 2009, 2010, 2012, 2014, 2016, 2018	N	--	N/A	N/A
S-145	13	2003, 2004, 2007, 2010, 2014	N	--	N/A	N/A
S-146	13	--	N	--	N/A	N/A
S-155	14	2005, 2006, 2018	N	--	N/A	N/A
S-163	14	2004, 2009, 2018	Y	0.07	No	(b)(1) Non-Adjacent Wetland
S-164	14	2003, 2004, 2005, 2009, 2010, 2016	Y	0.06	No	(b)(1) Non-Adjacent Wetland
S-165	14	2003, 2005, 2009, 2010	N	--	N/A	N/A
S-166	15	2003, 2004, 2006, 2007, 2009, 2010, 2012, 2018	N	--	N/A	N/A
S-167	15	2005, 2009, 2014, 2016	N	--	N/A	N/A
S-168	15	2006, 2010, 2012	N	--	N/A	N/A
S-169	16	2003, 2004, 2009, 2010, 2012, 2014	N	--	N/A	N/A
S-170	16	2003, 2005, 2006, 2009, 2010, 2012, 2016, 2018	Y	0.10	No	(b)(1) Non-Adjacent Wetland

Sample ID	Figure 3 Sheet No.	Years Signatures Present[1]	Wetland (Y/N)[2]	Area (acres)	Considered Jurisdictional	Jurisdictional Category[3]
S-171	16	2003, 2014	N	--	N/A	N/A
S-173	16	2010, 2012, 2018	N	--	N/A	N/A
S-174	16	2005, 2009, 2010, 2012, 2016, 2018	N	--	N/A	N/A
S-176	16	--	N	--	N/A	N/A
S-179	16	2005, 2009, 2010, 2016, 2018	N	--	N/A	N/A
S-183, S-184, S-185	16, 17	2007, 2010, 2012, 2016, 2018	Y	3.01	No	(b)(1) Non-Adjacent Wetland
S-188, S-189	17	2004, 2007, 2009, 2010, 2012, 2018	Y	0.06	No	(b)(1) Non-Adjacent Wetland
S-190	17	2007, 2009, 2010, 2012, 2014, 2016, 2018	N	--	N/A	N/A
S-194	17	2006, 2010, 2012, 2018	N	--	N/A	N/A
S-195	17	2006, 2009, 2010, 2012, 2016, 2018	N	--	N/A	N/A
S-196	17	2003, 2004, 2005, 2006, 2009, 2010, 2012, 2014	N	--	N/A	N/A
S-197	17	--	N	--	N/A	N/A
S-198	17	2018	N	--	N/A	N/A
S-199	17	--	N	--	N/A	N/A
S-200	17	2006	N	--	N/A	N/A
S-202	17, 18	2003, 2009, 2010, 2012, 2014, 2016, 2018	Y	0.24	No	(b)(1) Non-Adjacent Wetland
S-209	18	2009, 2010, 2012, 2014, 2016, 2018	N	--	N/A	N/A
S-210	18	2004, 2006, 2010, 2012, 2014, 2016	Y	0.07	No	(b)(1) Non-Adjacent Wetland
S-211	18	2006, 2010, 2012	N	--	N/A	N/A
S-212	18	2004, 2006, 2009, 2010, 2012, 2016, 2018	Y	0.12	No	(b)(1) Non-Adjacent Wetland
S-213	18	2006, 2010, 2012, 2016	N	--	N/A	N/A
S-214	18	2004, 2006, 2010, 2012, 2016, 2018	Y	0.17	No	(b)(1) Non-Adjacent Wetland
S-215	18	2004, 2006, 2010, 2012, 2016, 2018	Y	0.24	No	(b)(1) Non-Adjacent Wetland
S-216	18	2005, 2014	N	--	N/A	N/A
S-217	18	2014	N	--	N/A	N/A
S-218, S-219	18	2004, 2006, 2010, 2012, 2014, 2016, 2018	Y	0.87	No	(b)(1) Non-Adjacent Wetland

Sample ID	Figure 3 Sheet No.	Years Signatures Present[1]	Wetland (Y/N)[2]	Area (acres)	Considered Jurisdictional	Jurisdictional Category[3]
S-220	18	2007, 2012, 2014	N	--	N/A	N/A
S-221	18	2003, 2004, 2005, 2009, 2010, 2014, 2016, 2018	N	--	N/A	N/A
S-226	18	2005, 2009	N	--	N/A	N/A
S-229	18	2009	N	--	N/A	N/A
S-230	19	2009	N	--	N/A	N/A
S-236	19	2003, 2005, 2006, 2009, 2010, 2014, 2016, 2018	N	--	N/A	N/A
S-237	19	2004, 2007, 2009, 2010, 2014, 2016	N	--	N/A	N/A
S-239	19	2003, 2004, 2005, 2006, 2007, 2010, 2014, 2016	N	--	N/A	N/A
S-239	19	2004, 2006, 2007, 2009, 2014, 2016	N	--	N/A	N/A
S-244, S-246	19	2003, 2005, 2006, 2007, 2009, 2010, 2012, 2014, 2016, 2018	Y	0.75	No	(b)(1) Non-Adjacent Wetland
S-247	19	2006, 2016	N	--	N/A	N/A
S-249	20	2003, 2004, 2005, 2010, 2016,	N	--	N/A	N/A
S-250	20	2003, 2010, 2016, 2018	N	--	N/A	N/A
S-251	20	2004, 2016, 2018	N	--	N/A	N/A
S-254	20	2009, 2010	N	--	N/A	N/A
S-257	20	2003, 2004, 2005, 2006, 2009, 2014, 2016	N	--	N/A	N/A
S-258	20	2003, 2007, 2009, 2010, 2012, 2016, 2018	N	--	N/A	N/A
S-259	20	2004, 2005, 2009, 2010, 2016, 2018	Y	0.04	No	(b)(1) Non-Adjacent Wetland
S-260	20	2003, 2004, 2006, 2009, 2010, 2014, 2016	N	--	N/A	N/A
S-261	21	2003, 2004, 2006, 2009, 2010, 2014, 2016	N	--	N/A	N/A
S-265	21	2007, 2010, 2014, 2016	Y	0.35	No	(b)(1) Non-Adjacent Wetland
S-266	21	2010	N	--	N/A	N/A
S-267	21	2003, 2006, 2009, 2010, 2014, 2016, 2018	Y	1.67	No	(b)(1) Non-Adjacent Wetland
S-268	21	2007, 2010, 2016	N	--	N/A	N/A

Sample ID	Figure 3 Sheet No.	Years Signatures Present[1]	Wetland (Y/N)[2]	Area (acres)	Considered Jurisdictional	Jurisdictional Category[3]
S-271	21	2004, 2006, 2009, 2010, 2012, 2014	Y	0.23	No	(b)(1) Non-Adjacent Wetland
S-273	21	2016	N	--	N/A	N/A
S-274	21	2010, 2016	N	--	N/A	N/A
S-275	21	2006, 2009, 2012, 2014	N	--	N/A	N/A
S-277	21	2003, 2006, 2010, 2016	N	--	N/A	N/A
S-278	21	2006, 2009, 2016	N	--	N/A	N/A
S-279	21	2003, 2006, 2009, 2010, 2014, 2016	N	--	N/A	N/A
S-280	21	--	N	--	N/A	N/A
S-281	22	2009, 2010, 2012, 2014, 2016, 2018	Y	0.33	No	(b)(1) Non-Adjacent Wetland
S-289	22	2010, 2016	N	--	N/A	N/A
S-292	22	2010, 2016	N	--	N/A	N/A
S-293	22	--	N	--	N/A	N/A
S-294, S-298	22, 23	2003, 2004, 2009, 2010, 2014, 2016, 2018	Y	2.40	No	(b)(1) Non-Adjacent Wetland
S-296	23	2004	N	--	N/A	N/A
S-302	23	--	N	--	N/A	N/A
S-305	23	--	N	--	N/A	N/A
S-306	23	2010, 2012, 2018	N	--	N/A	N/A
S-313	23	2004, 2010, 2016	N	--	N/A	N/A
S-316	23	2003, 2004, 2007, 2009, 2010, 2012, 2014, 2016, 2018	Y	0.28	No	(b)(1) Non-Adjacent Wetland
S-319	23	2003, 2004, 2006, 2007, 2010, 2012, 2014, 2018	Y	1.95	No	(b)(1) Non-Adjacent Wetland
S-321	23	2010, 2014, 2018	N	--	N/A	N/A
S-322	23	2018	N	--	N/A	N/A
S-323	24	--	N	--	N/A	N/A
S-324	24	2007	N	--	N/A	N/A
S-325	24	--	N	--	N/A	N/A
S-328	25	2006, 2018	N	--	N/A	N/A

Sample ID	Figure 3 Sheet No.	Years Signatures Present[1]	Wetland (Y/N)[2]	Area (acres)	Considered Jurisdictional	Jurisdictional Category[3]
S-329	25	2010	N	--	N/A	N/A
S-330	26	2018	N	--	N/A	N/A
S-332	27	2018	N	--	N/A	N/A
S-342	28	2006, 2009, 2010, 2012, 2014, 2016, 2018	Y	0.07	No	(b)(1) Non-Adjacent Wetland
S-343	28	--	N	--	N/A	N/A
S-352	28	2003, 2006, 2007, 2009, 2010, 2012, 2016, 2018	N	--	N/A	N/A
S-353	28	2003, 2004, 2006, 2007, 2009, 2010, 2012, 2014, 2016, 2018	N	--	N/A	N/A
S-354	28	2003, 2004, 2006, 2007, 2009, 2010, 2012, 2014, 2016	N	--	N/A	N/A
S-356	28	2003, 2006, 2007, 2010, 2012, 2016, 2018	Y	0.18	No	(b)(1) Non-Adjacent Wetland
S-359	28	2003, 2004, 2005, 2006, 2007, 2010, 2012, 2016, 2018	Y	0.68	No	(b)(1) Non-Adjacent Wetland
S-360	28	2003, 2004, 2005, 2006, 2007, 2009, 2010, 2012, 2016, 2018	N	--	N/A	N/A
S-361	28	2004, 2006, 2010, 2012, 2018	N	--	N/A	N/A
S-364	28	2004, 2009, 2010, 2012, 2014, 2018	N	--	N/A	N/A
S-365	28	2003, 2006, 2009, 2010, 2012, 2014	N	--	N/A	N/A
S-368	29	2004, 2010, 2012, 2014	Y	0.89	No	(b)(1) Non-Adjacent Wetland
S-369	29	2003, 2005, 2006, 2007, 2009, 2010, 2012, 2014, 2016, 2018	N	--	N/A	N/A
S-372	29	2003, 2004, 2005, 2006, 2007, 2010, 2014, 2018	N	--	N/A	N/A
S-373	29	2010, 2012, 2014, 2016	Y	0.10	No	(b)(1) Non-Adjacent Wetland
S-375	30	2012	N	--	N/A	N/A
S-376	30	--	N	--	N/A	N/A
S-377	30	--	N	--	N/A	N/A
S-378	30	2006	Y	0.43	Yes	(a)(4) Abutting Wetland

Sample ID	Figure 3 Sheet No.	Years Signatures Present[1]	Wetland (Y/N)[2]	Area (acres)	Considered Jurisdictional	Jurisdictional Category[3]
S-379	30	2010, 2012	N	--	N/A	N/A
S-382	31	2016	N	--	N/A	N/A
			TOTAL	24.68	8.56	-

Notes:

[1] Listed years represent the years of aerial imagery in which wetland hydrology signatures were observed. Additionally, wetland hydrology signatures were also identified via recent aerial imagery that is readily retrievable via Google Earth® and are included in Figure 4-13.

[2] A sample ID does not meet wetland criteria when hydric soils are absent, even when wetland signatures are present in a majority of analyzed aerial photos.

[3] Jurisdictional category is based on numbering in the *Interim Approved Jurisdictional Determination Form User Manual* (USACE, 2020)

[4] A prior converted cropland designation from the NRCS would negate jurisdiction.

Table 3. Water Resources

Sample ID	Fig. 3 Sheet No.	Name	Type	Channel Width (feet)	Considered Jurisdictional	Jurisdictional Rationale[1]
S-009	2	Unnamed	Ephemeral Waterway	1 - 3	No	(b)(3) Ephemeral feature
S-025, S-043, S-065	4, 5	Unnamed	Perennial/Intermittent Waterway	2 - 4.5	Yes	(a)(2) Tributary
S-087	6	Payne Creek	Perennial/Intermittent Waterway	3 - 6	Yes	(a)(2) Tributary
S-102	8	Unnamed	Intermittent Waterway	1 - 3	Yes	(a)(2) Tributary
S-141, S-147	12, 13	Unnamed	Intermittent Waterway	1 - 3	Yes	(a)(2) Tributary
S-159	14	Humbug Creek	Perennial/Intermittent Waterway	20	Yes	(a)(2) Tributary
S-192	17	Unnamed	Ditch	2 - 3	No	(b)(5) Ditch
S-206	17, 18	Unnamed	Intermittent Waterway	1 - 2	Yes	(a)(2) Tributary
S-225	18	Unnamed	Intermittent Waterway	2 - 6	No	(b)(5) Ditch
S-248	19, 20, 21	Unnamed	Ditch	3 - 8	No	(b)(5) Ditch
S-262	21	Unnamed	Ditch	5	No	(b)(5) Ditch
S-263	21	Unnamed - Ag Tile Outfalls	Ditch	3	No	(b)(5) Ditch
S-263	21	Unnamed - Ag Tile Outfalls	Intermittent Waterway	2 - 3	No	(b)(5) Ditch
S-300	22, 23	Sand Creek	Perennial/Intermittent Waterway	3 - 5	Yes	(a)(2) Tributary
S-308	23	Unnamed	Ephemeral Waterway	1 - 3	No	(b)(3) Ephemeral feature
S-327	24, 25	Unnamed	Open Water (Sewage Lagoon)	N/A	No	(b)(8) Artificial lake/pond
S-334, S-336, S-349	27, 28	Unnamed	Perennial/Intermittent Waterway	2 - 4	Yes	(a)(2) Tributary
S-366	28, 29	Unnamed	Open Water (Sewage Lagoon)	N/A	No	(b)(8) Artificial lake/pond
S-382	31	Unnamed	Ephemeral Waterway	3	No	(b)(3) Ephemeral feature

[1] Rationale is based on numbering in the *Interim Approved Jurisdictional Determination Form User Manual* (USACE, 2020)

4.0 Discussion

The Norfolk - Wisner Study Area consists of rolling hills on the west side of the Study Area and low-lying farmland on the east side of the Study Area. Payne Creek, Humbug Creek, Sand Creek, and several intermittent and perennial waterways weave throughout the Study Area.

According to NRCS AgACIS, the STANTON and STANTON 7NE, NE Wetland Climate Table (WETs) Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation May 7th through 9th.

In some locations, the final WIAS boundaries displayed in Figure 3 are larger than the desktop-determined WIAS polygons identified in Figure 4-13. In these locations, WIAS boundaries were extended when additional sample locations, located outside of desktop-determined WIAS polygons, showed continued hydric soil indicators and consistent topography. The most notable examples of this are as follows:

- WIAS located immediately northeast of the intersection of 567th Ave. and US-275. The area is characterized by S-034, S-035, S-036, S-037, S-040, S-041, S-042 and S-046.
- WIAS located east of the west junction of US-275 and N-15 and north of US-275. The area is characterized by S-183, S-184, and S-185.

5.0 References

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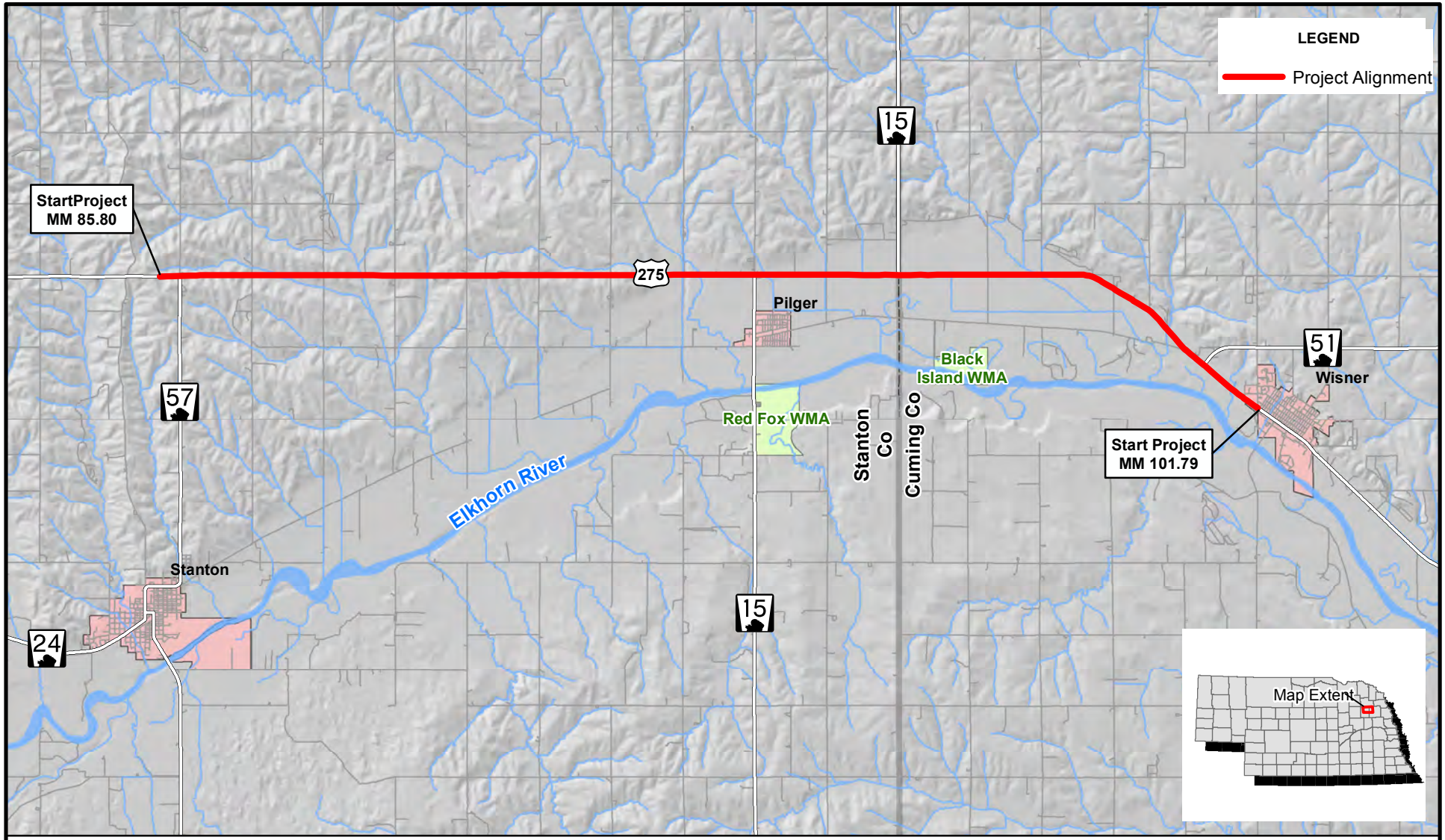
Appendix A

Figures



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 1 2
MILES

N

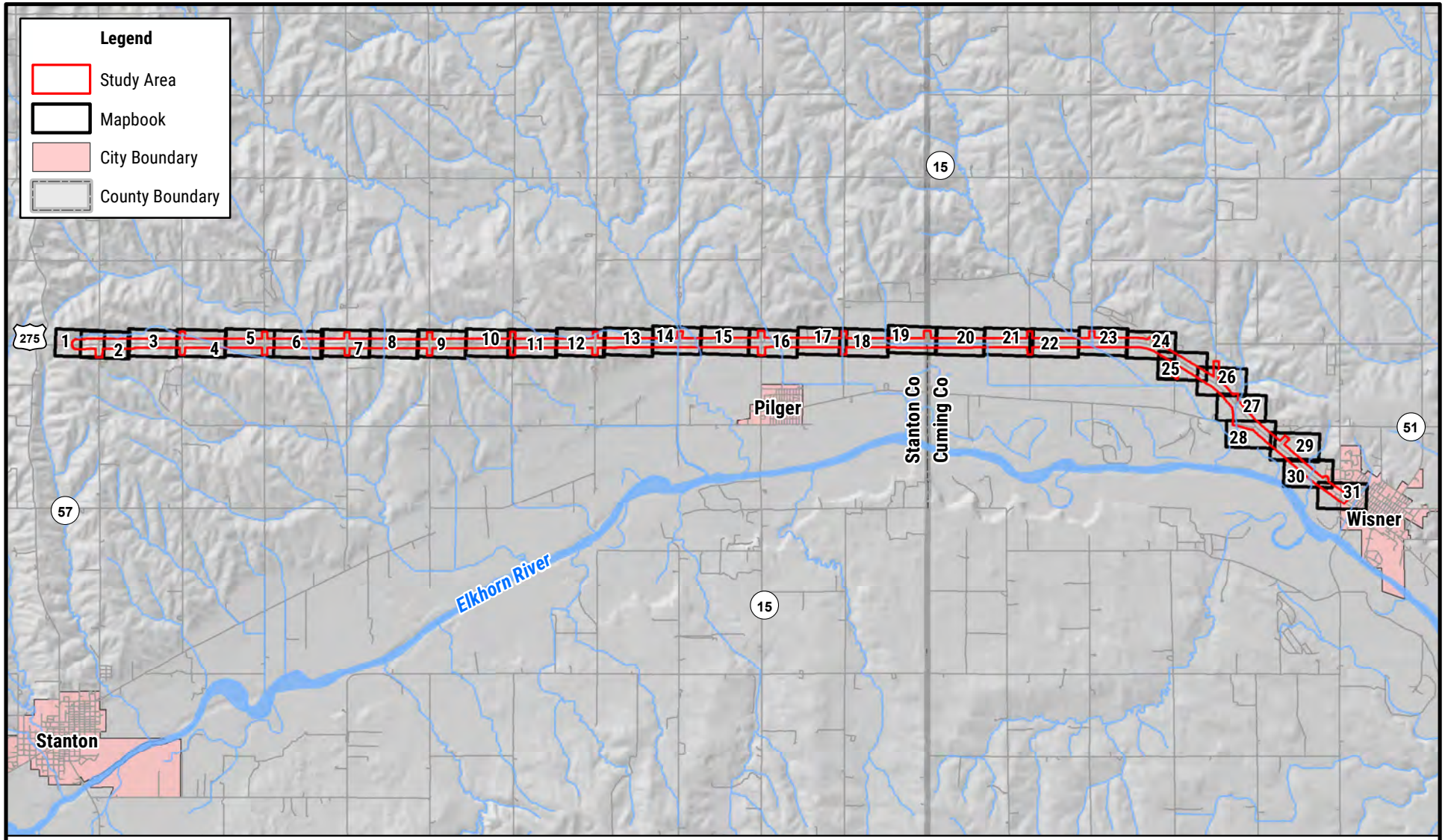
PROJECT LOCATION

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

DATE: 8/6/2019

FIGURE 1

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\MAP_8X11_FIG_1_PROJECT_LOCATION.MXD - USER: CMODRCIN - DATE: 8/6/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

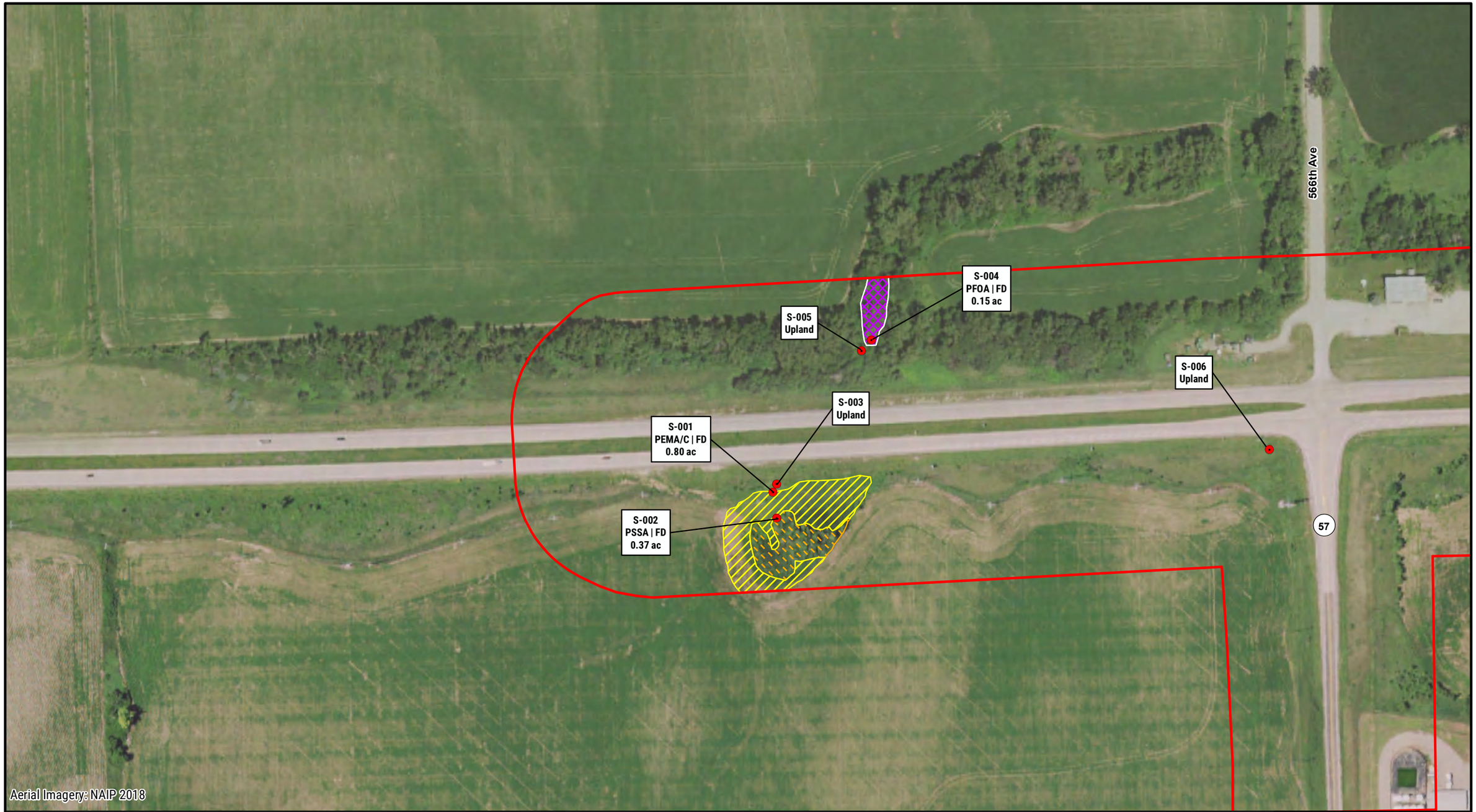
0 0.75 1.5
MILES

N

KEY MAP
NORFOLK - WISNER
PROJ. NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\FIG2_KEY_MAP.MXD - USER: EROLL - DATE: 8/30/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

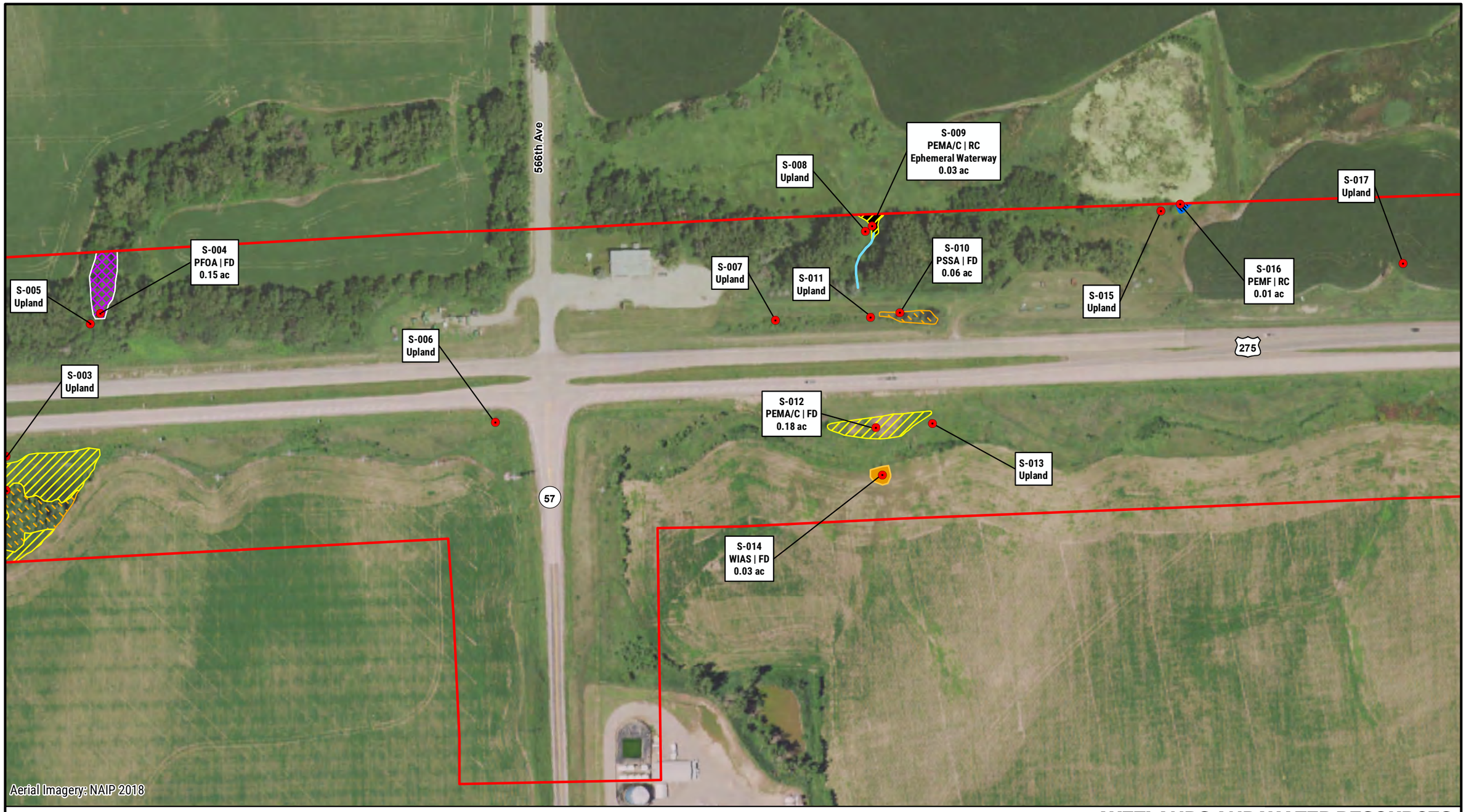
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 1 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 10/30/2020

FIGURE 3 SHEET 2 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 10/30/2020

FIGURE 3 SHEET 3 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020

S-025
PEMA/C | RC
Perennial Waterway
0.01 ac

S-026
Upland

S-030
PEMA/C | FD
0.05 ac

S-023
Upland

S-034
WIAS | FD
6.89

S-042
WIAS | FD
See S-034

S-043
PEMA/C | RC
Perennial Waterway
0.09 ac

S-049
PEMA/C | FD
0.02 ac

S-056
PEMA/C | FD
0.001 ac

S-040
WIAS | FD
See S-034

S-045
PEMA/C | FD
See S-034

S-047
Upland

S-052
Upland

S-057
Upland

S-022
Upland

S-041
WIAS | FD
See S-034

S-046
WIAS | FD
See S-034

S-055
Upland

S-064
Upland

S-033
Upland

S-035
WIAS | FD
See S-034

S-050
Upland

S-063
WIAS | FD
0.29 ac

S-053
PEMA/C | FD
1.14 ac

S-058
Upland

S-021
Upland

S-060
Upland

S-024
Upland

S-036
WIAS | FD
See S-034

275

S-029
PEMA/C | FD
0.06 ac

S-032
Upland

S-037
WIAS | FD
See S-034

S-027
Upland

S-039
PEMA/C | FD
0.22 ac

S-031
Upland

S-038
Upland

S-044
Upland

S-048
PEMA/C | FD
4.04 ac

S-028
Upland

S-043
Continued

S-051
PEMA | RC
See S-048

S-054
PEMA | FD
See S-048

S-061
PEMA/C | FD
0.48 ac

S-062
PEMA/C | FD
See S-061

S-059
Upland

S-066
Upland

S-065
PEMA/C | RC
Perennial Waterway
0.02 ac

567th Rd

Aerial Imagery: NAIP 2018

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- JD WIAS
- WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 4 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

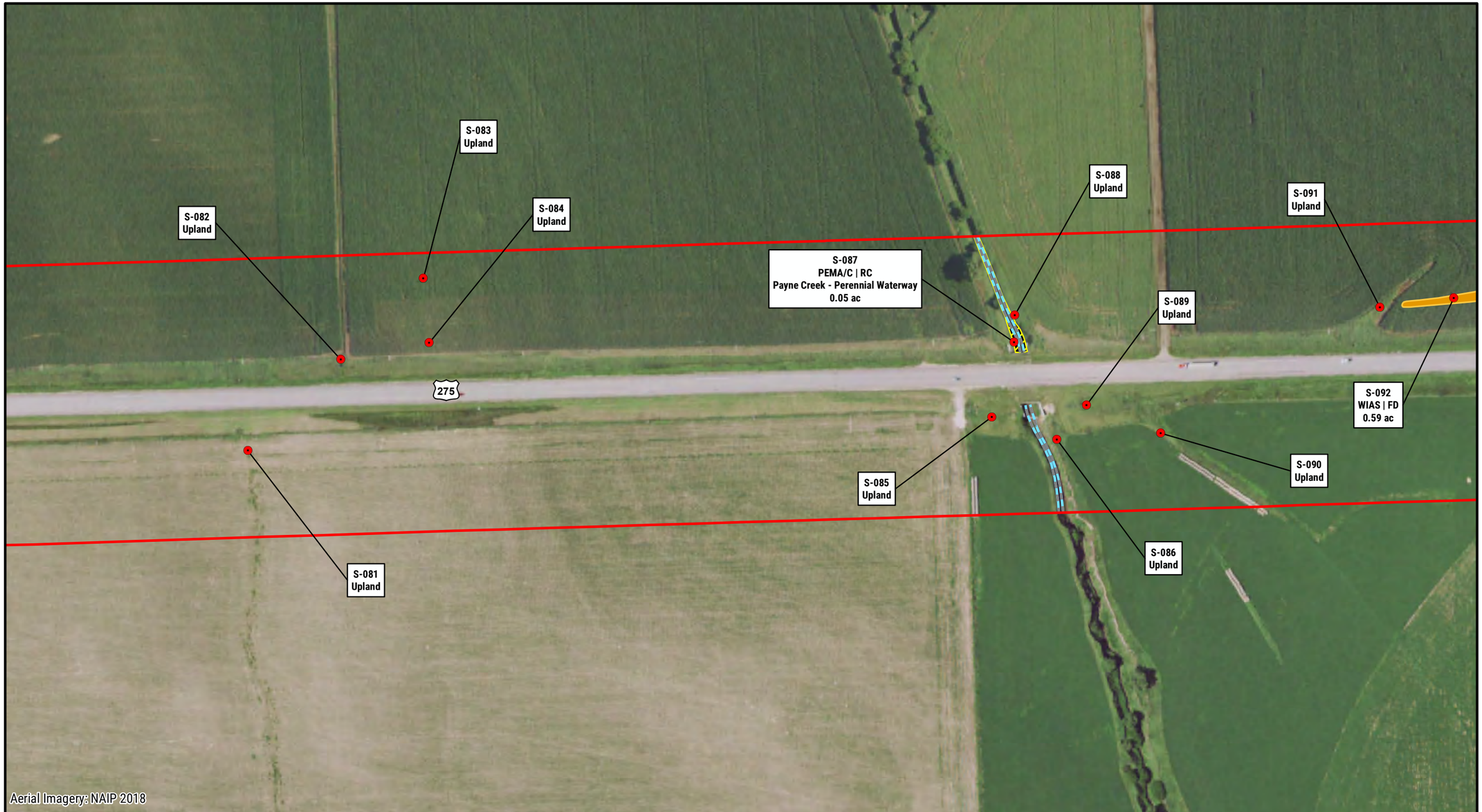
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 5 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- JD PFOA
- PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 6 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020

S-095
Upland

569th Ave

275

S-094
WIAS | FD
See S-092

S-093
Upland

S-098
Upland

S-097
Upland

S-096
PEMA/C | FD
0.12 ac

Aerial Imagery: NAIP 2018

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- JD WIAS
- WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

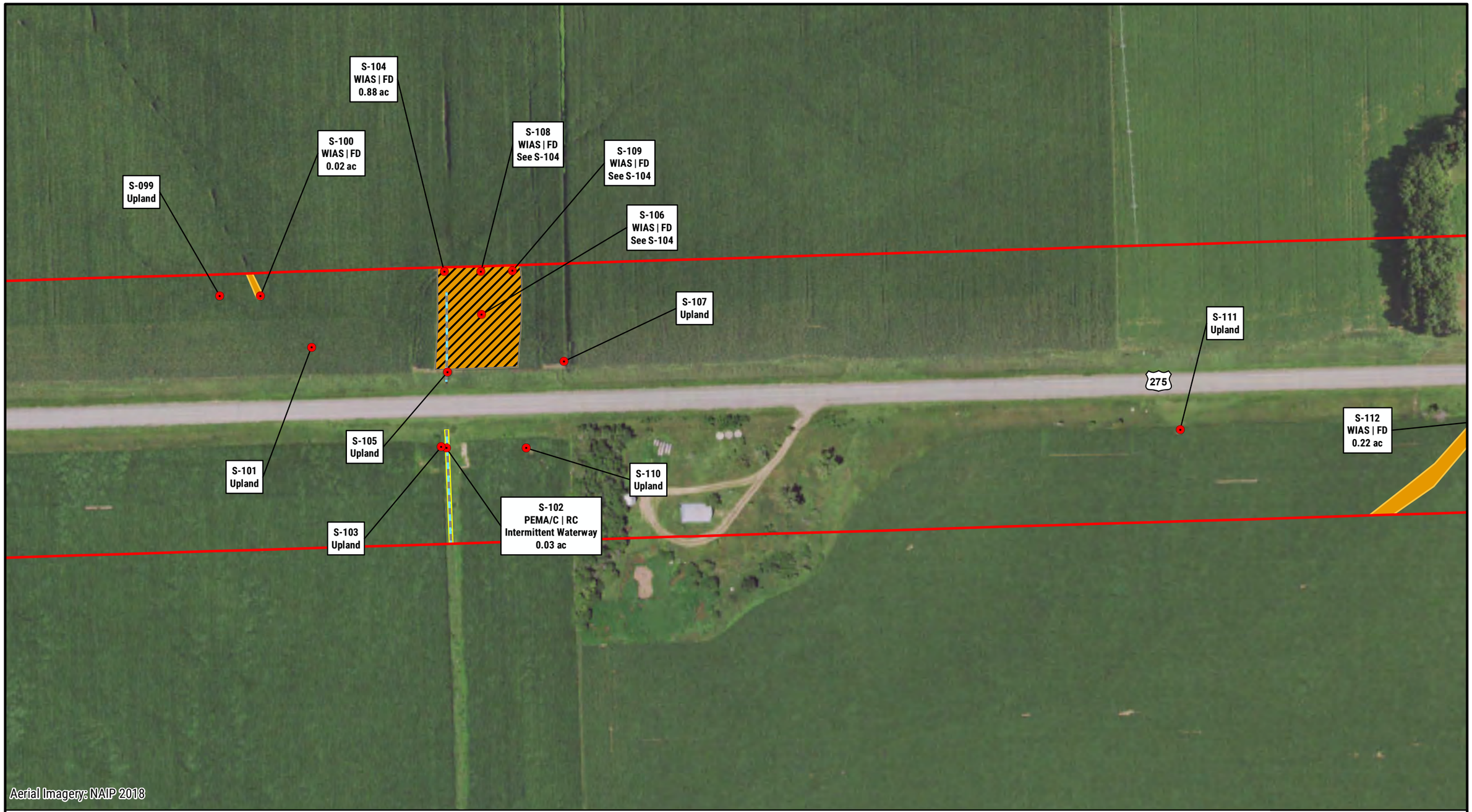
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 7 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

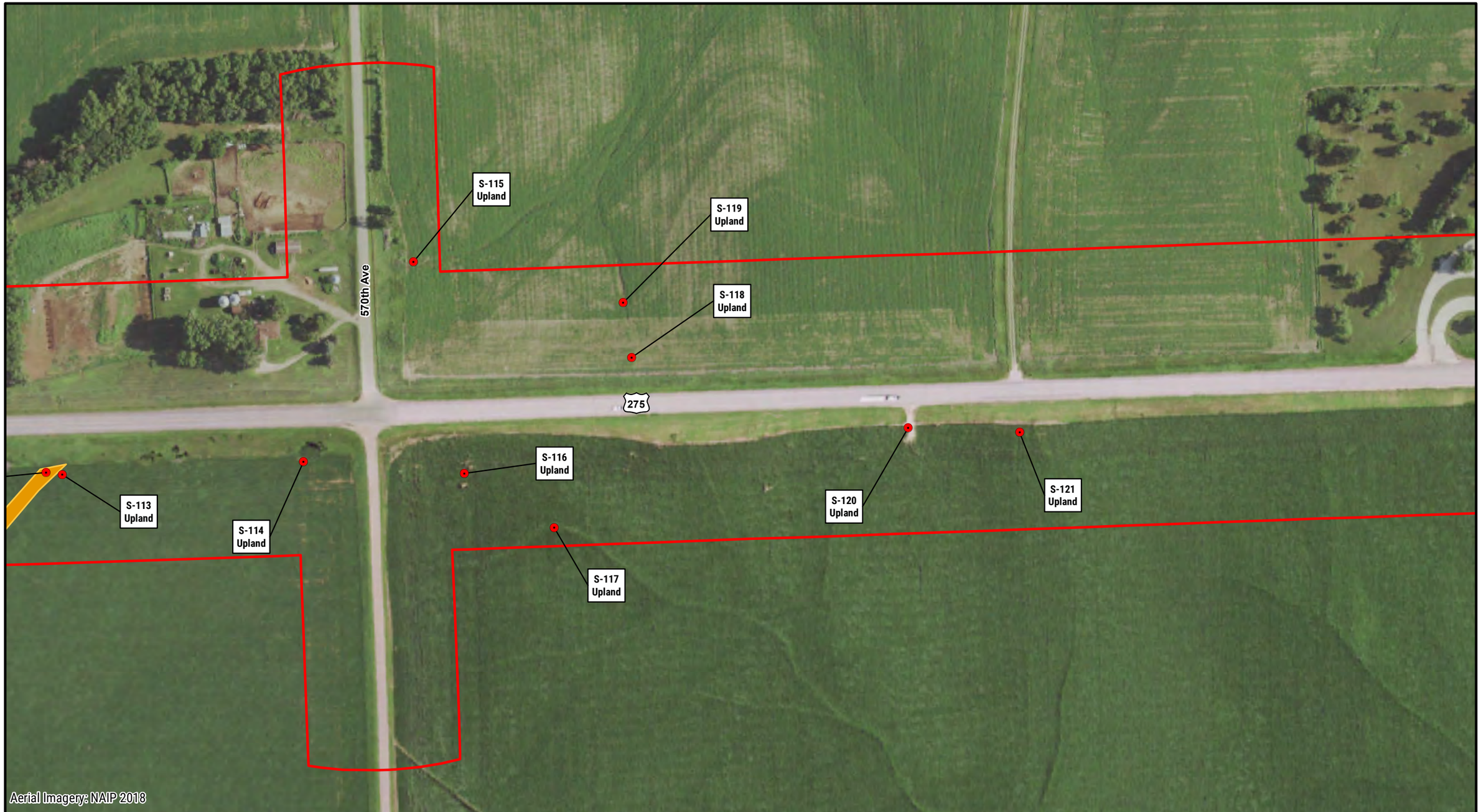
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 8 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 10/30/2020

FIGURE 3 SHEET 9 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

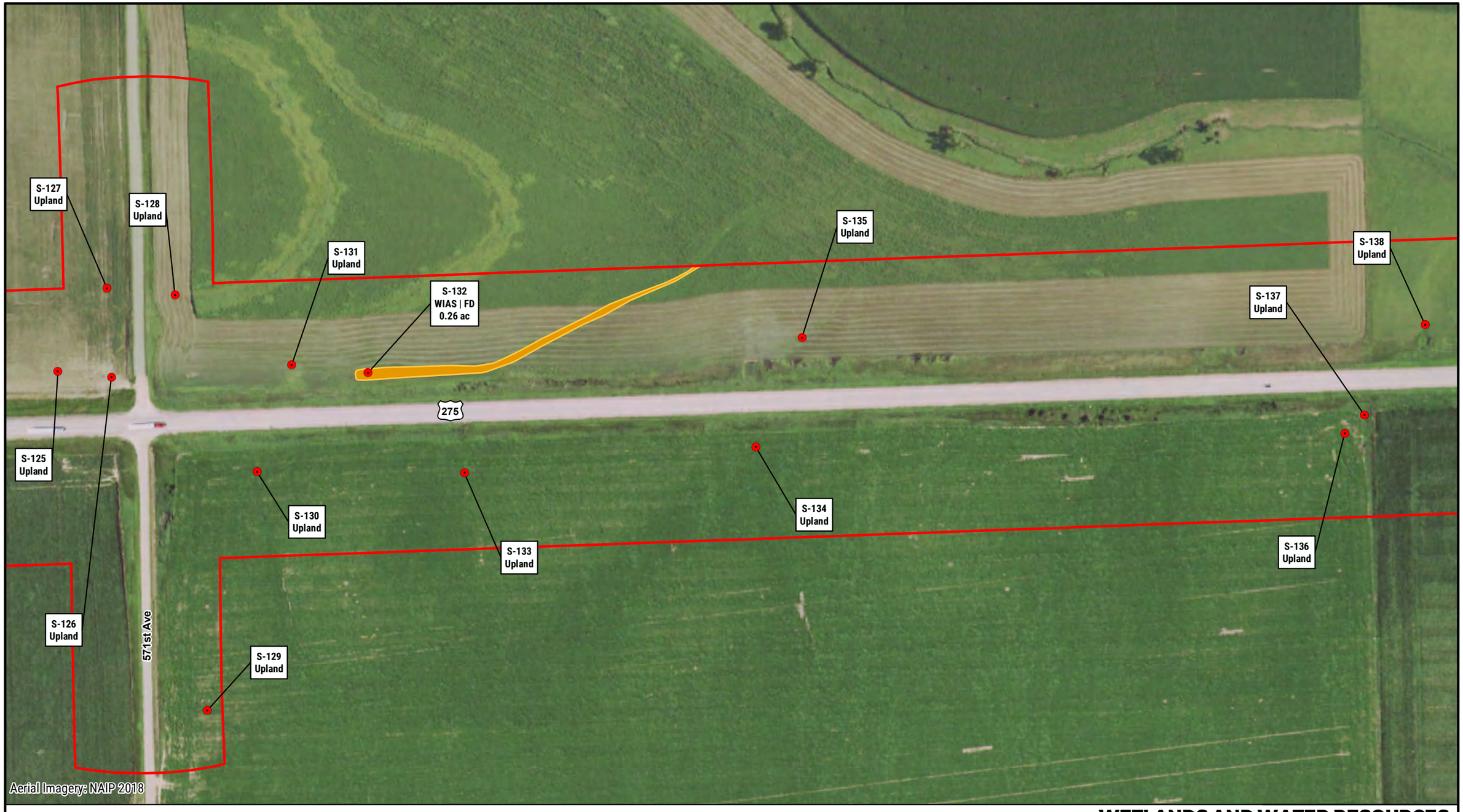
Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 10/30/2020

FIGURE 3 SHEET 10 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- JD WIAS
- WIAS

N

0 100 200
FEET

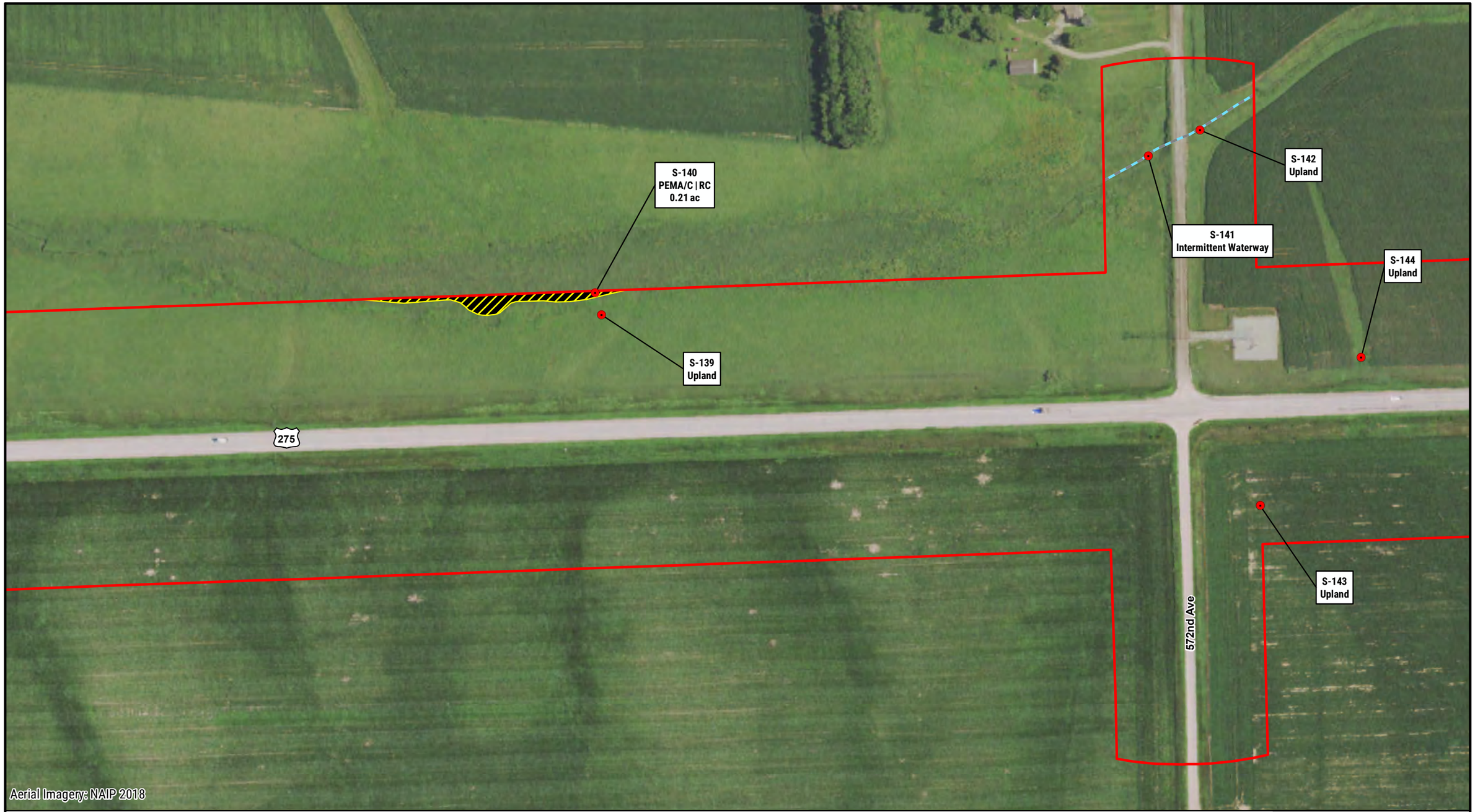
Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 10/30/2020

FIGURE 3 SHEET 11 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

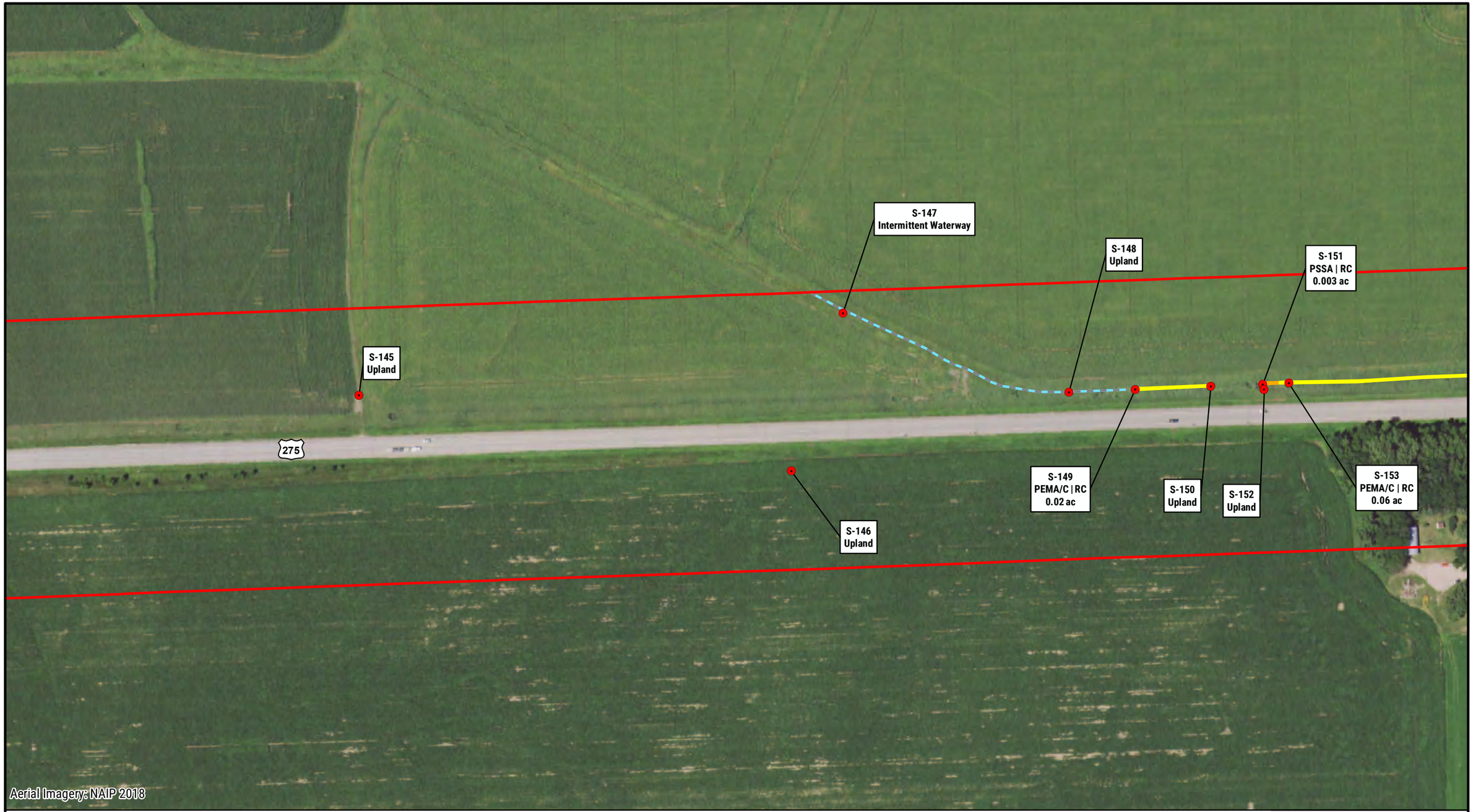
Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 10/30/2020

FIGURE 3 SHEET 12 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

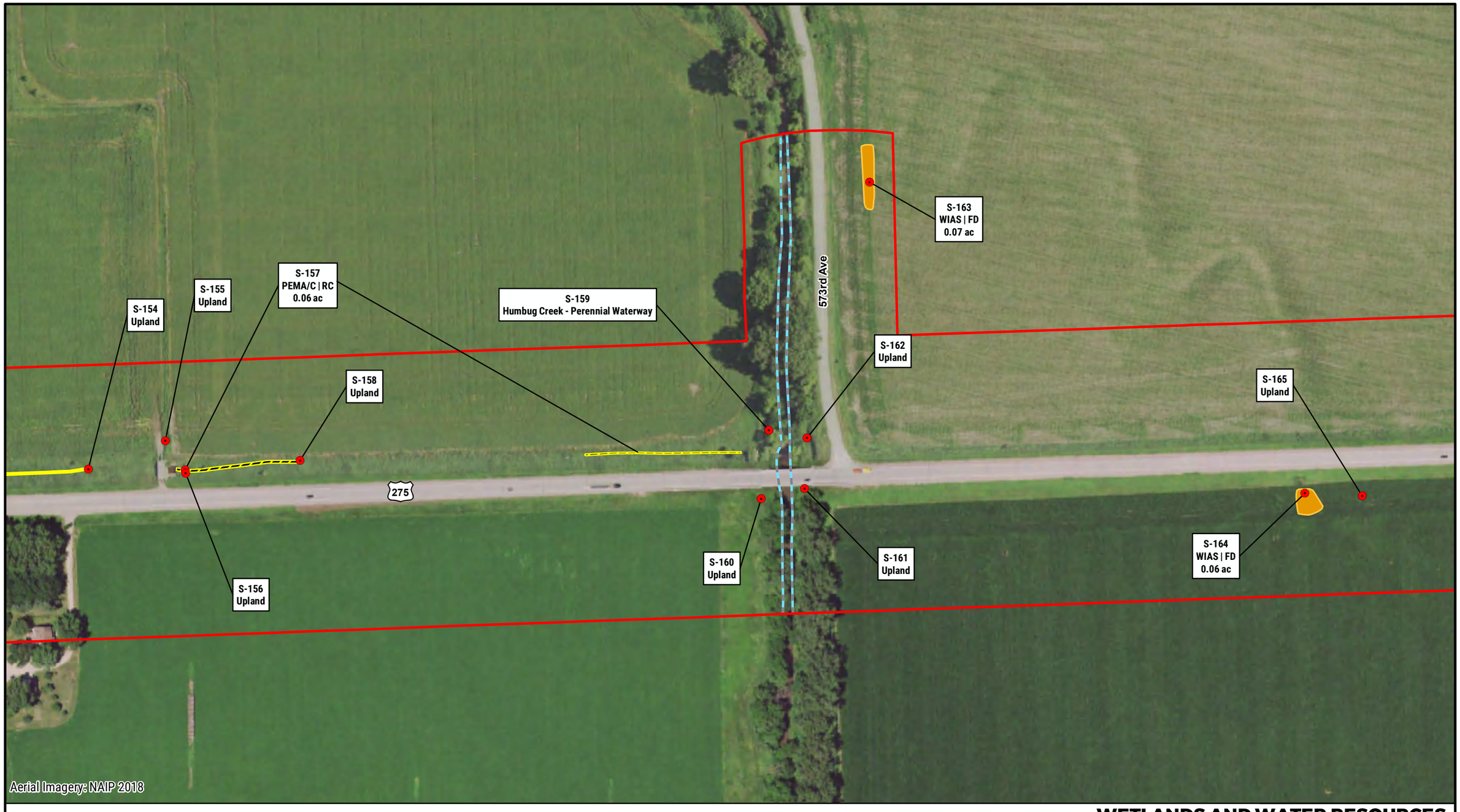
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 13 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- JD WIAS
- WIAS

N

0 100 200
FEET

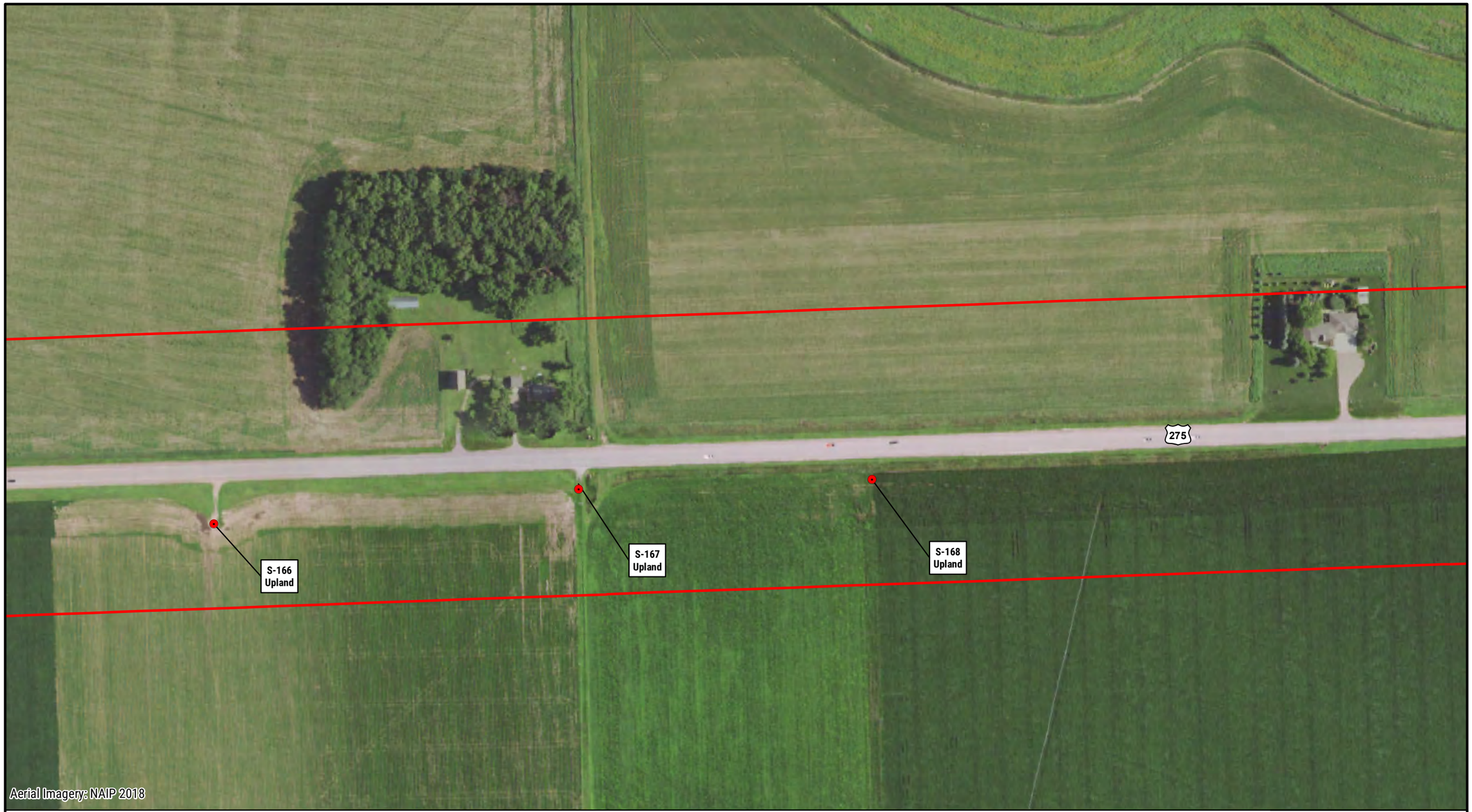
Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 10/30/2020

FIGURE 3 SHEET 14 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

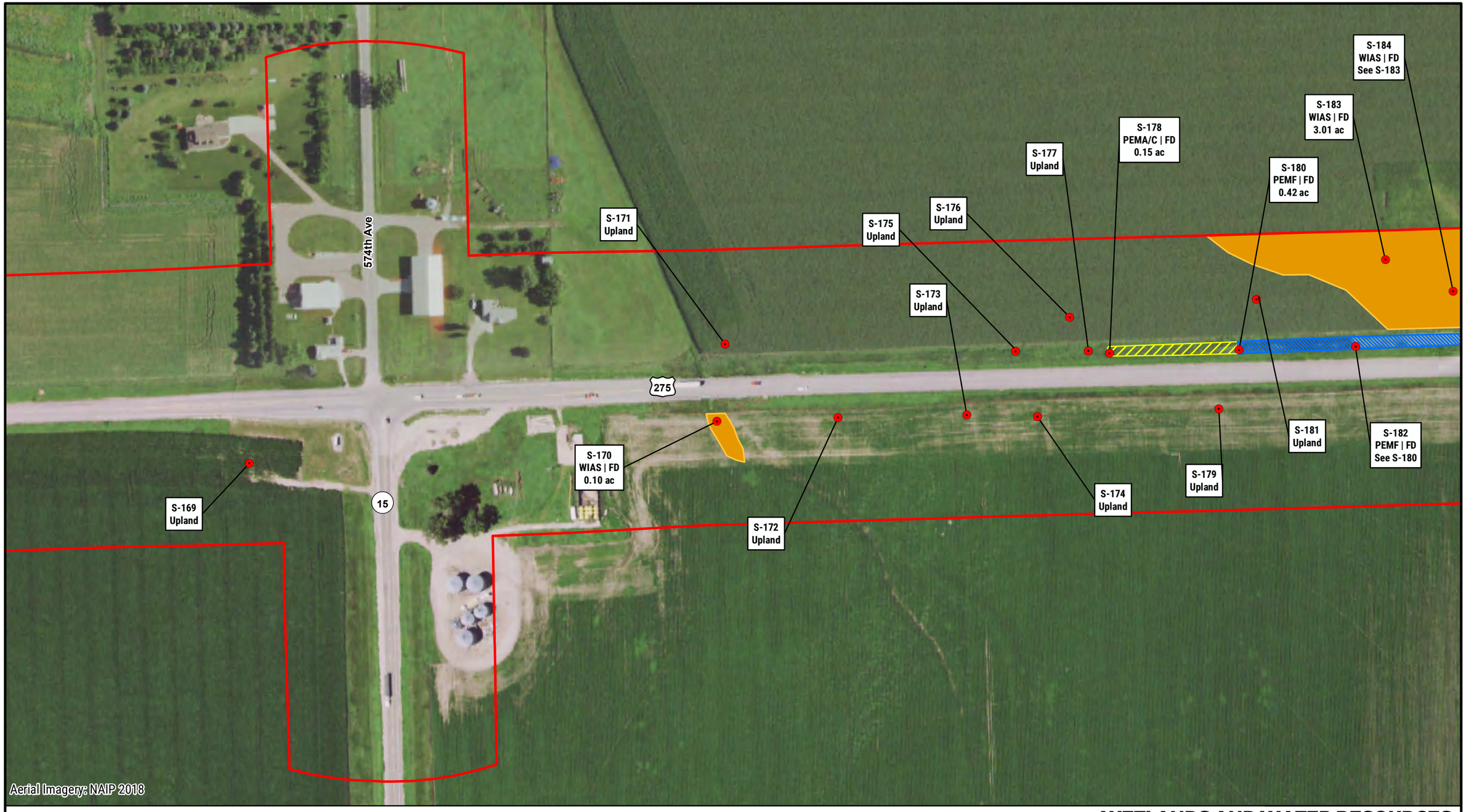
Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 10/30/2020

FIGURE 3 SHEET 15 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- JD WIAS
- WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 10/30/2020

FIGURE 3 SHEET 16 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020

S-200
Upland

S-206
PEMA/C | RC
Intermittent Waterway
0.14 ac

575th Ave

S-207
Upland

S-208
PEMA/C | FD
0.86 ac

S-210
WIAS | FD
0.07 ac

S-211
Upland

S-212
WIAS | FD
0.12 ac

S-214
WIAS | FD
0.17 ac

S-215
WIAS | FD
0.24 ac

S-218
WIAS | FD
0.87 ac

S-219
WIAS | FD
See S-218

S-220
Upland

S-222
PEMA/C | RC
0.01 ac

S-223
Upland

S-225
PEMA/C | RC
Intermittent Waterway
0.03 ac

S-229
Upland

S-224
Upland

S-197
Upland

S-198
Upland

S-201
Upland

275

S-205
Upland

S-204
PEMA/C | RC
0.51 ac

S-203
Upland

S-202
WIAS | FD
0.24 ac

S-209
Upland

S-213
Upland

S-217
Upland

S-216
Upland

S-221
Upland

S-227
Upland

S-226
Upland

S-228
PEMA/C | RC
1.57 ac

Aerial Imagery: NAIP 2018

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- JD WIAS
- WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

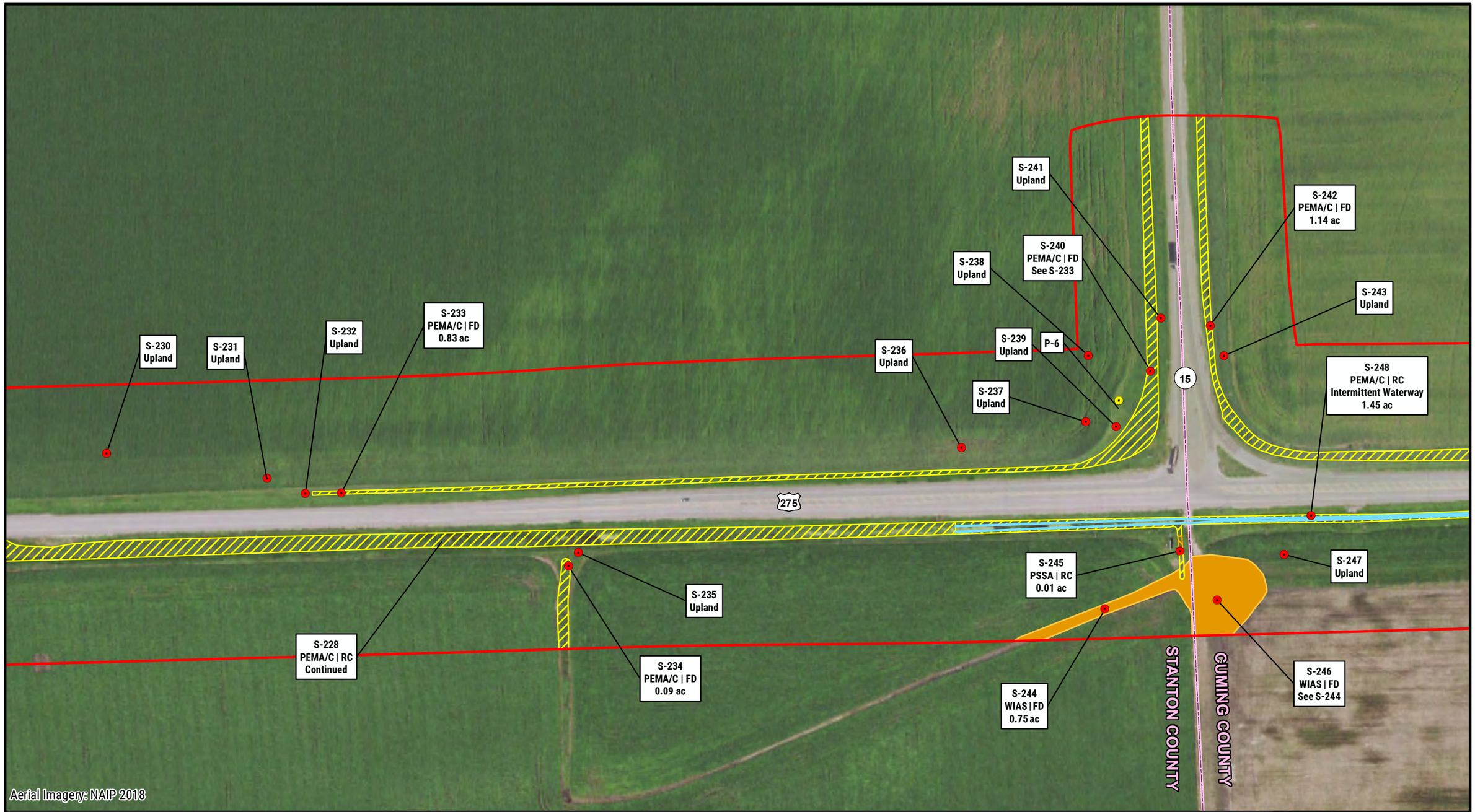
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 18 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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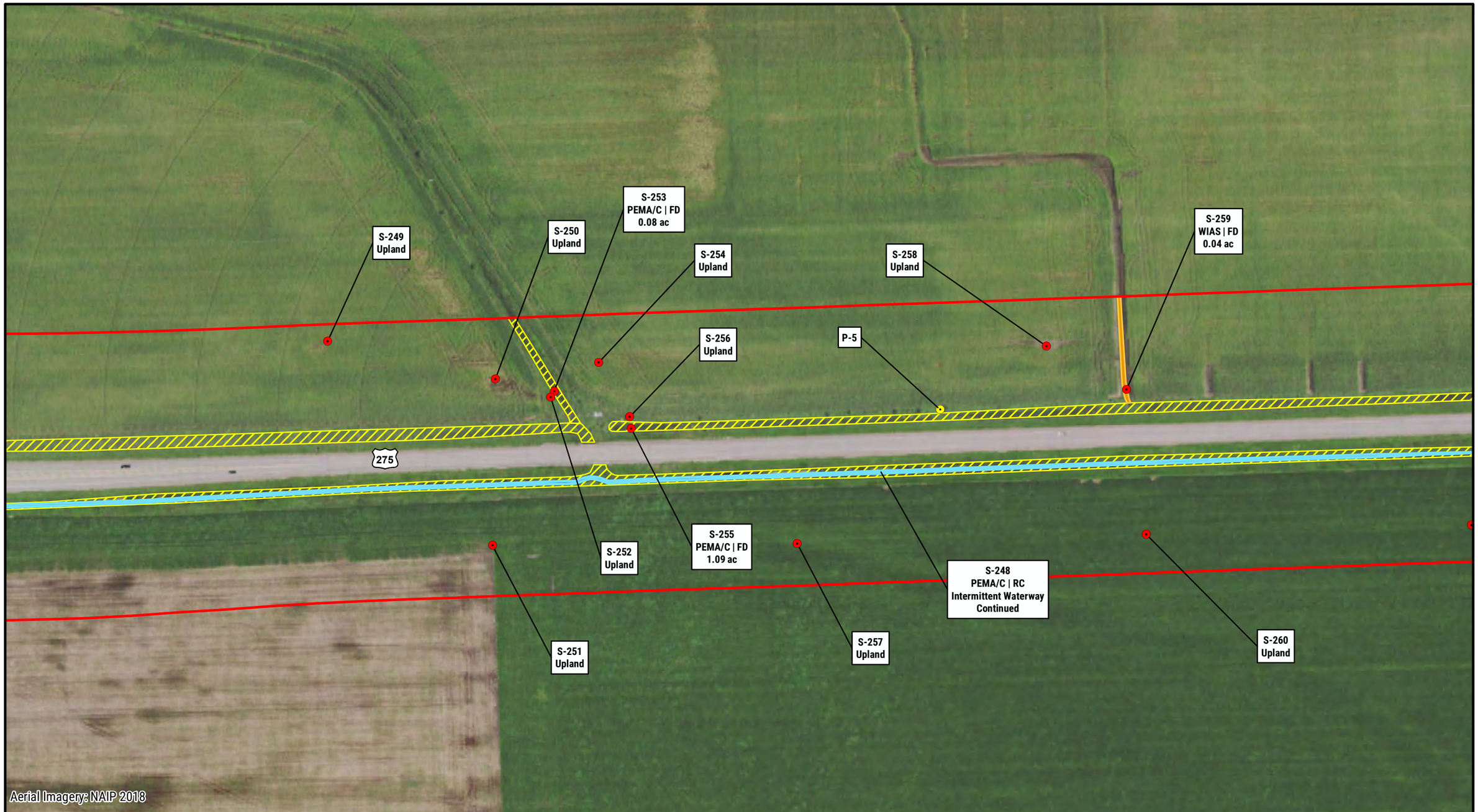
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 19 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- JD PFOA
- PSSA
- PFOA
- JD PSSA
- JD WIAS
- WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 10/30/2020

FIGURE 3 SHEET 20 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

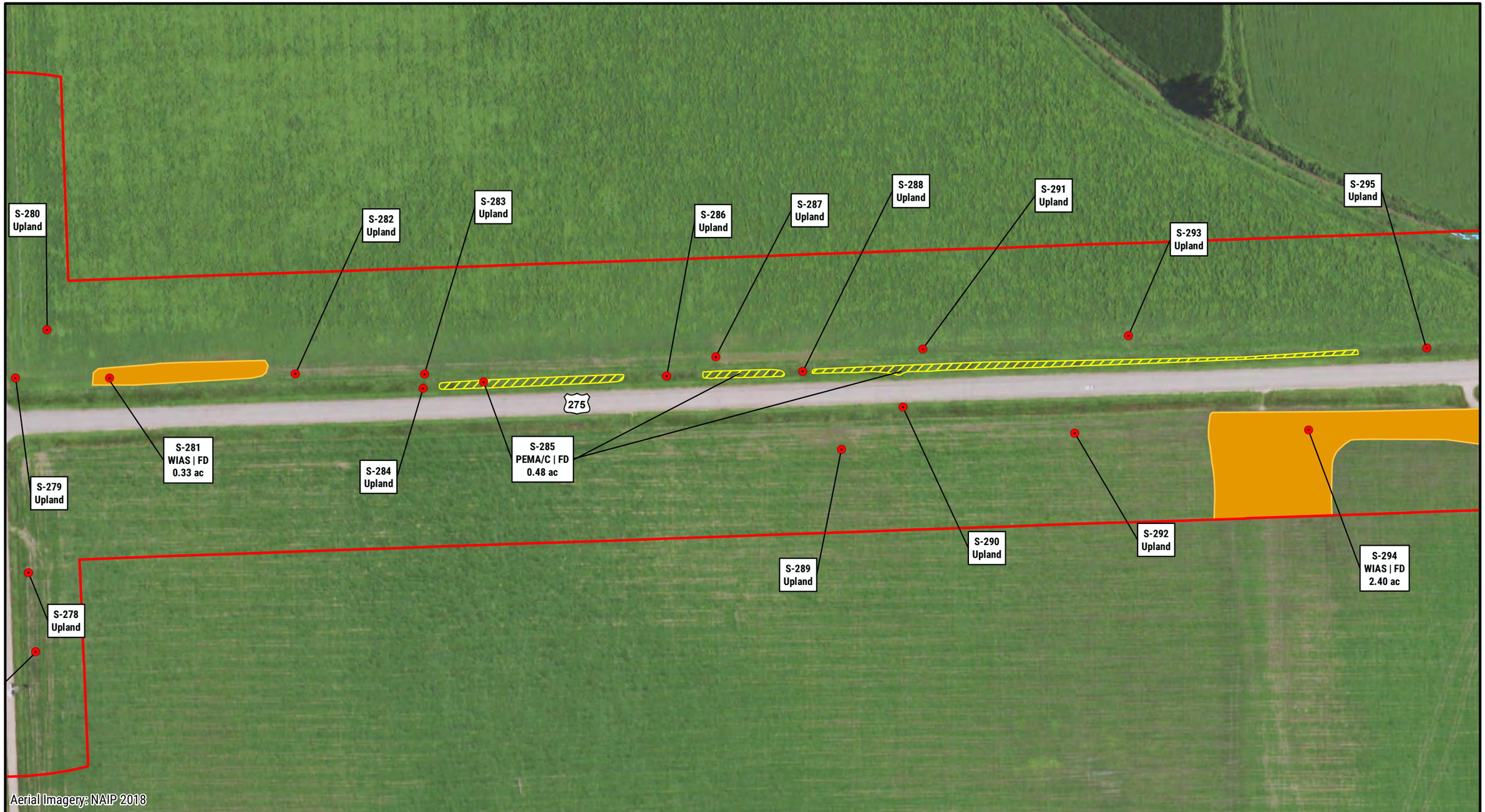
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 21 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- JD WIAS
- WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

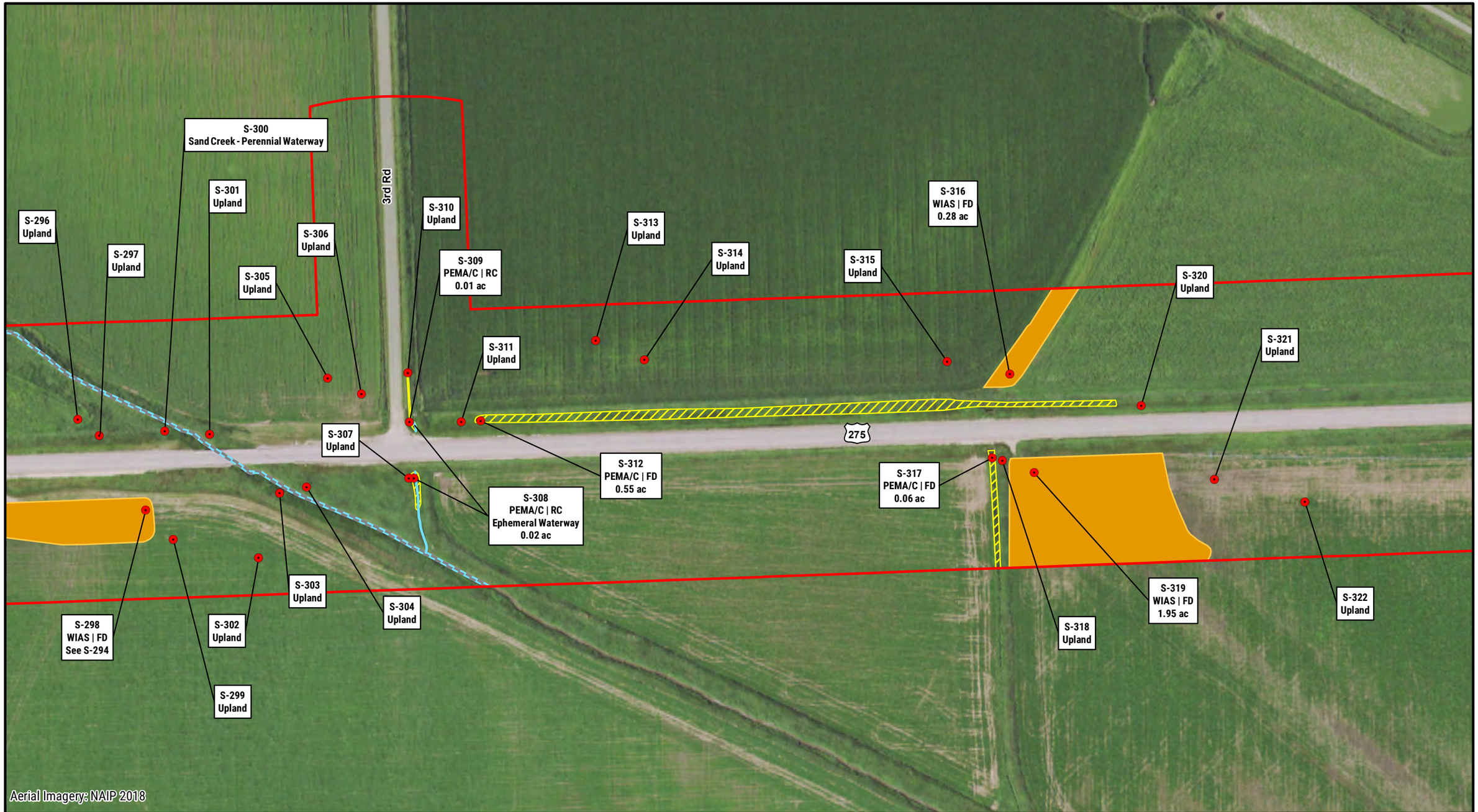
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 22 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- JD WIAS
- WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

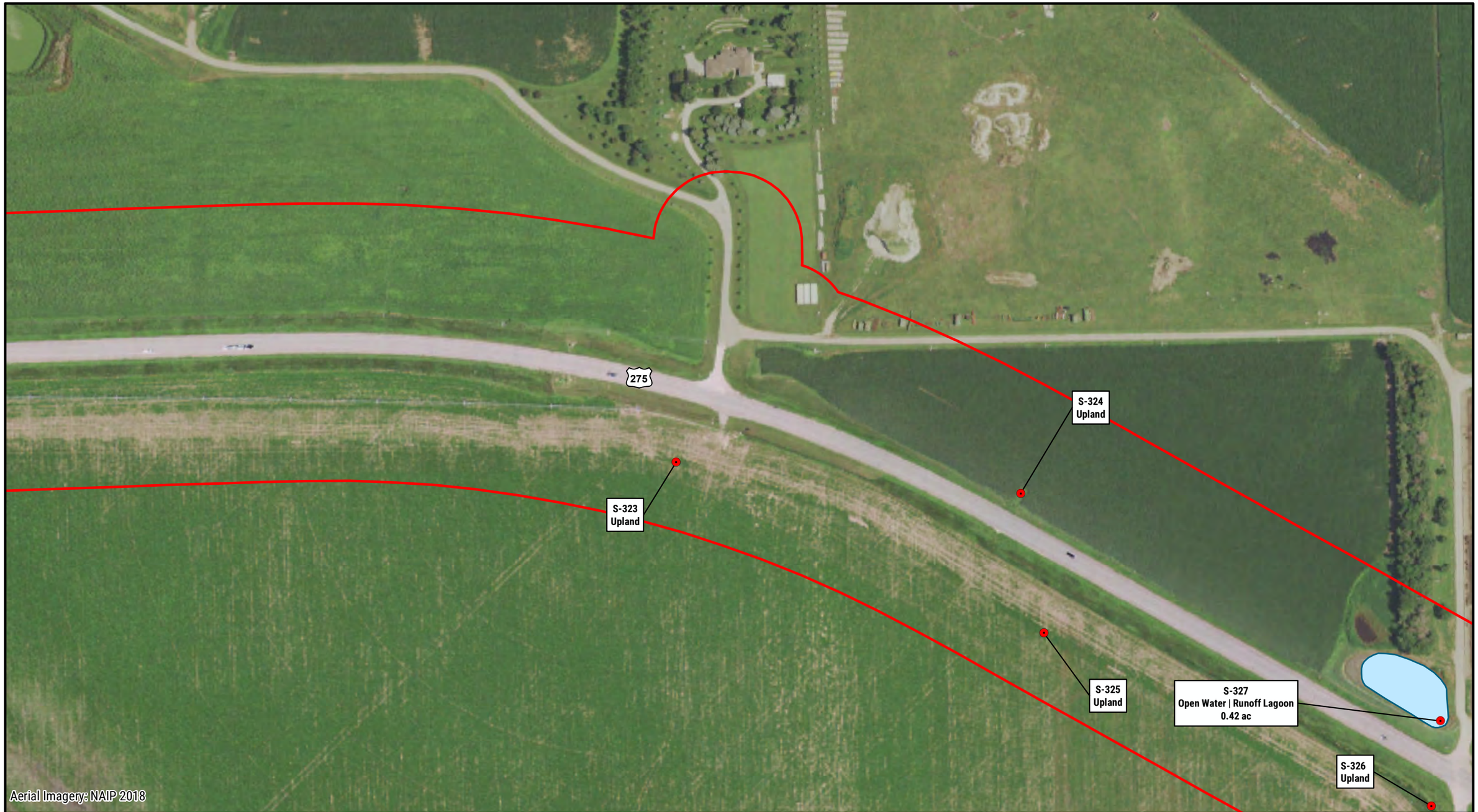
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 23 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 25 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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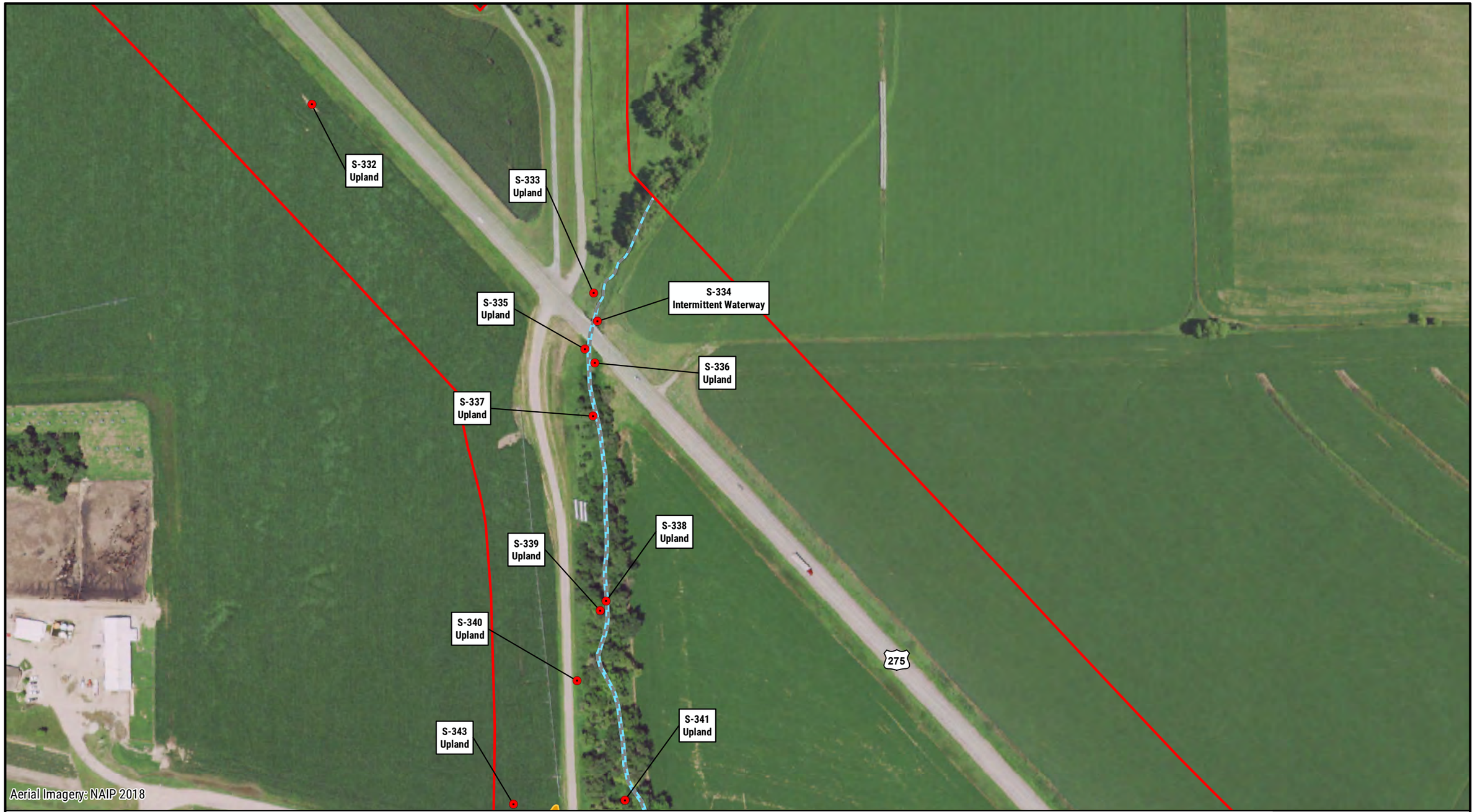
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 26 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 10/30/2020

FIGURE 3 SHEET 27 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020

S-342
WIAS | FD
0.07 ac

S-345
Upland

S-344
Upland

S-350
Upland

S-346
Upland

S-348
PEMA/C | RC
0.35 ac

S-347
PFOA | RC
0.83 ac

S-349
PEMA/C | RC
Intermittent Waterway
See S-348

S-351
PEMA/C | FD
0.16 ac

S Rd

S-352
Upland

S-353
Upland

S-354
Upland

275

S-355
Upland

S-357
PEMA/C | FD
0.04 ac

S-356
WIAS | FD
0.18 ac

S-358
Upland

S-359
WIAS | FD
0.68 ac

S-360
Upland

S-361
Upland

S-362
PEMA/C | FD
0.13 ac

S-363
Upland

S-364
Upland

S-365
Upland

S-366
Open Water | Runoff Lagoon
1.01 ac

Aerial Imagery: NAIP 2018

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- JD WIAS
- WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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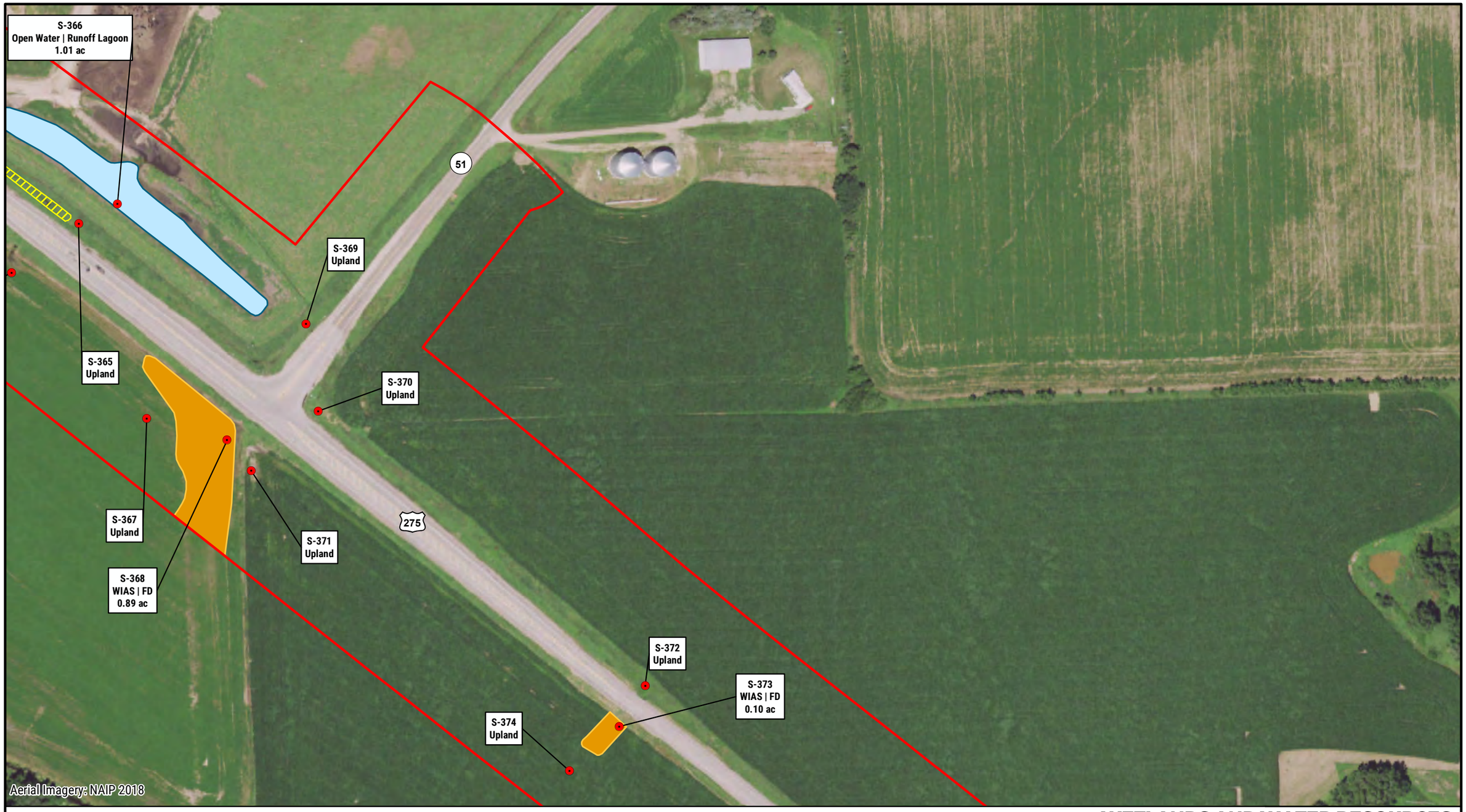
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- JD WIAS
- WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 29 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 30 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Outfall Photo Point
- Channel
- JD Channel
- Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 10/30/2020

FIGURE 3 SHEET 31 of 31

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\JD\20200715_JD_FIG3.MXD - USER: CMODRCIN - DATE: 10/30/2020

Appendix B

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-001

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 32 T 24N R 02E

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0181515313434 | Long: -97.2187289368157 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is an emergent wetland area located south of US-275 and west of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	40	Y	FACW
Phragmites australis	35	Y	FACW
Typha angustifolia	20	Y	OBL
Solidago canadensis	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	20	x 1 =	20
FACW species	75	x 2 =	150
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	100 (A)		190 (B)

Prevalence Index = B/A= 1.90

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-001

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 3	10YR 3 / 2	100					SILTY CLAY	
3 to 16	10YR 4 / 2	60					SILTY CLAY	
3 to 16	10YR 5 / 1	30	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-002

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 32 T 24N R 02E

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0179987664454 | Long: -97.2187052209844 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a scrub shrub wetland area located south of US-275 and west of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Salix nigra	10	Y	OBL
	10	=Total Cover	
Shrub Stratum (Plot size: 30 Ft)			
Salix nigra	30	Y	OBL
Populus deltoides	15	Y	FAC
	45	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Typha angustifolia	40	Y	OBL
Phragmites australis	30	Y	FACW
Phalaris arundinacea	20	Y	FACW
Equisetum hyemale	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across all Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	60	x 2 =	120
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	155 (A)		245 (B)

Prevalence Index = B/A= 1.58

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-002

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 3	10YR 3 / 2	100					SILTY CLAY	
3 to 16	10YR 4 / 2	60					SILTY CLAY	
3 to 16	10YR 5 / 1	30	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-003

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 32 T 24N R 02E

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Concave

Slope(%): 4 | Lat: 42.0181975329748 | Long: -97.2186967520368 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X
Hydric Soil Present?	Yes	No	X
Wetland Hydrology Present?	Yes	No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent wetland areas located south of US-275 and west of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Fraxinus pennsylvanica	5	Y	FACW
	5	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	40	Y	FACU
Helianthus annuus	30	Y	FACU
	20	Y	
Rosa arkansana	5	N	FACU
Solidago canadensis	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	85 (A)		330 (B)

Prevalence Index = B/A= 3.88

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-003

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 5/4	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-004

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 29 T 24N R 02E

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0190216806884 | Long: -97.2179186774029 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a forested wetland area located north of US-275 and west of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Fraxinus pennsylvanica	15	Y	FACW
Populus deltoides	15	Y	FAC
	30	=Total Cover	
Shrub Stratum (Plot size: 30 Ft)			
Fraxinus pennsylvanica	5	Y	FACW
	5	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	90	Y	FACW
Fraxinus pennsylvanica	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	120	x 2 =	240
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	135 (A)		285 (B)

Prevalence Index = B/A = 2.11

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-004

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	0-1	
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	0	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-005

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 29 T 24N R 02E

Landform (hillslope, terrace, etc.): Depression | Local Relief (concave, convex, none): Concave

Slope(%): 3 | Lat: 42.0189604992032 | Long: -97.2179989033781 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X
Hydric Soil Present?	Yes	No	X
Wetland Hydrology Present?	Yes	No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent forested wetland located north of US-275 and west of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Morus rubra	50	Y	FACU
Ulmus pumila	10	N	UPL
Gleditsia triacanthos	5	N	FACU
	65	=Total Cover	
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Ageratina altissima	5	Y	FACU
Bromus inermis	5	Y	FACU
Viola sororia	5	Y	FAC
	15	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	65	x 4 =	260
UPL species	10	x 5 =	50
Column Totals:	80 (A)		325 (B)

Prevalence Index = B/A= 4.06

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-005

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-006

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183063970812 | Long: -97.2148295103053 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The area characterized by this data form is an upland erosional feature located south of US-275 and west of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	30	Y	FACU
Phalaris arundinacea	20	Y	FACW
Sorghastrum nutans	20	Y	FACU
Chamaecrista nictitans	15	N	FACU
Poa pratensis	10	N	FAC
Trifolium repens	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	10	x 3 =	30
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	100 (A)		350 (B)

Prevalence Index = B/A= 3.50

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-006

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 4 / 2	100					CLAY	
12 to 16	10YR 3 / 2	100					CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-007

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188536725057 | Long: -97.212597219525 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X
Hydric Soil Present?	Yes	No	X
Wetland Hydrology Present?	Yes	No	X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:
The area characterized by this data form is an upland area located north of US-275 and east of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Fraxinus pennsylvanica	5	Y	FACW
Ulmus pumila	5	Y	UPL
	10	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	70	Y	FACU
Phalaris arundinacea	25	Y	FACW
Cornus drummondii	5	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	5	x 3 =	15
FACU species	70	x 4 =	280
UPL species	5	x 5 =	25
Column Totals:	110 (A)		380 (B)

Prevalence Index = B/A= 3.45

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-007

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches):

Water Table Present? Yes ____ No X Depth (inches):

Saturation Present? Yes ____ No X Depth (inches):

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-008

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0193593804889 | Long: -97.2118648826809 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X
Hydric Soil Present?	Yes	No	X
Wetland Hydrology Present?	Yes	No	X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Populus deltoides	20	Y	FAC
Juniperus virginiana	10	Y	FACU
Fraxinus pennsylvanica	5	N	FACW
	35	=Total Cover	
Shrub Stratum (Plot size: 30 Ft)			
Cornus drummondii	10	Y	FAC
	10	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Cornus drummondii	10	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	40	x 3 =	120
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	145 (A)		530 (B)

Prevalence Index = B/A = 3.66

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-008

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is elevated about two feet above the adjacent wetland. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-009

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0193885290379 | Long: -97.2118107491809 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is an emergent wetland area located north of US-275 and east of N-57. The wetland surrounds a waterway that is approximately one to three-feet-wide with three foot banks and 1:1 slopes.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	100	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-009

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-010

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188509454794 | Long: -97.2118456811567 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a scrub shrub wetland area located north of US-275 and east of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Salix nigra	25	Y	OBL
Populus deltoides	2	N	FAC
	27	=Total Cover	
Shrub Stratum (Plot size: 30 Ft)			
Fraxinus pennsylvanica	2	N	FACW
Populus deltoides	2	N	FAC
Salix nigra	2	N	OBL
	6	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	100	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	27	x 1 =	27
FACW species	102	x 2 =	204
FAC species	4	x 3 =	12
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	133 (A)		243 (B)

Prevalence Index = B/A= 1.83

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-010

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4/2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-011

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188730751448 | Long: -97.2116143975333 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Fraxinus pennsylvanica	25	Y	FACW
	25	=Total Cover	
Shrub Stratum (Plot size: 30 Ft)			
Juniperus virginiana	2	N	FACU
	2	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	65	Y	FACU
Phalaris arundinacea	15	N	FACW
Cornus drummondii	10	N	FAC
Asclepias syriaca	5	N	FACU
Desmanthus illinoensis	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	10	x 3 =	30
FACU species	77	x 4 =	308
UPL species	0	x 5 =	0
Column Totals:	127 (A)		418 (B)

Prevalence Index = B/A = 3.29

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-011

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 4 / 2	100					SILTY CLAY	
6 to 16	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-012

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182019398477 | Long: -97.211832863301 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is an emergent wetland area located south of US-275 and east of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	70	Y	FACW
Phragmites australis	30	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-012

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
8 to 16	10YR 4 / 2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-013

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0182152646533 | Long: -97.211383620778 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X
Hydric Soil Present?	Yes	No	X
Wetland Hydrology Present?	Yes	No	X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Cornus drummondii	5	Y	FAC
Ulmus pumila	5	Y	UPL
	10	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Asclepias syriaca	5	N	FACU
Rumex crispus	5	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	95	x 4 =	380
UPL species	5	x 5 =	25
Column Totals:	110 (A)		435 (B)

Prevalence Index = B/A= 3.95

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-013

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-014

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0179221150777 | Long: -97.2117928878018 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage. In the absence of human alteration it is assumed that the area would meet hydrophytic vegetation criteria.

SOIL

Sampling Point: S-014

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 5	10YR 3/2	100					SILTY CLAY	
5 to 14	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
14 to 20	10YR 3/2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology signatures present on aerial photography. The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-015

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0194224758921 | Long: -97.2095304326716 | Datum: NAD 83

Soil Map Unit Name: Kezan silt loam, frequently flooded | NWI Classification: PUBFh

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X
Hydric Soil Present?	Yes	No	X
Wetland Hydrology Present?	Yes	No	X

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent semi-permanently flooded wetland located north of US-275 and east of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Juniperus virginiana	5	Y	FACU
Morus rubra	5	Y	FACU
	10	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Cornus drummondii	2	N	FAC
Juniperus virginiana	2	N	FACU
Morus rubra	2	N	FACU
	96	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	2	x 3 =	6
FACU species	104	x 4 =	416
UPL species	0	x 5 =	0
Column Totals:	106 (A)		422 (B)

Prevalence Index = B/A= 3.98

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-015

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	0

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-016

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0194577707457 | Long: -97.2093769181369 | Datum: NAD 83

Soil Map Unit Name: Water | NWI Classification: PUBFh

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:
The area characterized by this data form is an emergent semi-permanently flooded wetland area located north of US-275 and east of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Typha angustifolia	60	Y	OBL
Lemna minor	5	N	OBL
Phalaris arundinacea	5	N	FACW
	70	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	65	x 1 =	65
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	70 (A)		75 (B)

Prevalence Index = B/A= 1.07

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
Open water was present on 30% of the area. The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-016

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
Soils were assumed hydric due to the presence of inundation and obligate vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	12+	
Water Table Present?	Yes X	No	Depth (inches):	0	
Saturation Present?	Yes X	No	Depth (inches):	0	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-017

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0190681914329 | Long: -97.2076348940217 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of N-57.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-017

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/1	100					SILTY CLAY	
20 to 26	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-018

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0189562133108 | Long: -97.2054887631105 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is an emergent wetland area located north of US-275 and east of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	100	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-018

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
8 to 16	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-019

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188801896061 | Long: -97.205430585144 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint approximately four feet above the adjacent emergent wetland located north of US-275 and east of N-57.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	95	Y	FACU
Cornus drummondii	5	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	100 (A)		395 (B)

Prevalence Index = B/A= 3.95

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-019

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches):

Water Table Present? Yes ____ No X Depth (inches):

Saturation Present? Yes ____ No X Depth (inches):

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-020

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182434120761 | Long: -97.1994215606294 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-020

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 30	10YR 3 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Hydrology signatures present on aerial photography. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-021

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.019419438977 | Long: -97.1957600625665 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-021

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/ 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-022

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0195425540468 | Long: -97.1953797821772 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site does not meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-022

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
8 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-023

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0198452221799 | Long: -97.1952617609162 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site does not meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-023

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-024

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0195653973849 | Long: -97.1951304135089 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site does not meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-024

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
8 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-025

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0200168999564 | Long: -97.1951356483678 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes X No ____**
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
The area characterized by this data form is an emergent wetland area located north of US-275 and west of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	100	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-025

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-026

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Convex

Slope(%): 2 | Lat: 42.0199194136889 | Long: -97.195016129114 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 andwest of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	100	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-026

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 16	10YR 4/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-027

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0191037595918 | Long: -97.1951542891419 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site does not meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-027

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-028

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188507926859 | Long: -97.1950461603986 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X
Hydric Soil Present?	Yes	No	X
Wetland Hydrology Present?	Yes	No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and west of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	100	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-028

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	
12 to 20	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-029

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188272754692 | Long: -97.1949519336874 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is an emergent wetland area located north of US-275 and west of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Urtica dioica	35	Y	FACW
Phalaris arundinacea	25	Y	FACW
Rumex altissimus	25	Y	FACW
Bromus inermis	10	N	FACU
	95	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	95 (A)		210 (B)

Prevalence Index = B/A= 2.21

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-029

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
12 to 16	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-030

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0199222418854 | Long: -97.1947527127564 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:
The area characterized by this data form is an emergent wetland area located north of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	80	Y	FACW
Typha angustifolia	20	Y	OBL
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	20	x 1 =	20
FACW species	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		180 (B)

Prevalence Index = B/A= 1.80

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-030

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
Soils were assumed hydric due to the presence of inundation and obligate vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	2-12	
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-031

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187731024344 | Long: -97.194590920589 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent wetland in an agricultural setting located north of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	100	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-031

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 4 / 2	100					SILTY CLAY	
14 to 20	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-032

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189925852962 | Long: -97.1944330055399 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site does not meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-032

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 2	100					SILTY CLAY	
10 to 12	10YR 3 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
12 to 16	10YR 4 / 2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-033

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0193257098359 | Long: -97.1943913654248 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site does not meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-033

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
6 to 16	10YR 3/2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-034

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0197361670248 | Long: -97.1944359801289 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-034

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 9	10YR 3 / 2	100					SILTY CLAY	
9 to 16	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-035

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0193673507447 | Long: -97.1936745527822 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-035

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 9	10YR 3 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
9 to 16	10YR 3 / 2	70	7.5YR 4/6	10	C	M	SILTY CLAY	
9 to 16	10YR 4 / 2	20						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-036

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0191502248676 | Long: -97.1936745531528 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-036

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
14 to 16	10YR 4 / 2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-037

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189479707179 | Long: -97.1936775273707 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-037

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 4 / 1	95	7.5YR 4/6	5	C	M	SILTY CLAY	
12 to 16	10YR 4 / 1	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-038

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187588038435 | Long: -97.1915682543431 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Cyperus esculentus	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	10	x 2 =	20	
FAC species	0	x 3 =	0	
FACU species	90	x 4 =	360	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	380	(B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-038

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-039

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187528555454 | Long: -97.191463557865 | Datum: NAD 83

Soil Map Unit Name: Crofton-Nora complex, 11 to 17 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:
The area characterized by this data form is an emergent wetland area located north of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	90	Y	FACW
Cyperus esculentus	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-039

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	90	7.5YR 4/6	10	C	M	SILTY CLAY	
12 to 16	10YR 3/1	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-040

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188932433441 | Long: -97.1912755800008 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-040

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
6 to 16	10YR 4 / 2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-041

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0191645019747 | Long: -97.1912137142705 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-041

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 5	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
5 to 8	10YR 4 / 1	90	7.5YR 4/6	10	C	M	SILTY CLAY	
8 to 16	10YR 3 / 2	85	7.5YR 4/6	15	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-042

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0190788411401 | Long: -97.1905665011249 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-042

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
6 to 16	10YR 4 / 2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-043

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0192871264827 | Long: -97.1902128321791 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:
The area characterized by this data form is an emergent wetland area located north of US-275 and east of 567th Road adjacent to a waterway.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	70	Y	FACW
Equisetum hyemale	20	Y	FACW
Cyperus esculentus	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-043

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 2/1	85	7.5YR 4/6	15	C	PL	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-044

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0184710138057 | Long: -97.1902434799821 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	50	Y	FACU
Solidago canadensis	30	Y	FACU
Phalaris arundinacea	15	N	FACW
Poa pratensis	10	N	FAC
	105	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	10	x 3 =	30
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	105 (A)		380 (B)

Prevalence Index = B/A= 3.62

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-044

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 4 / 2	100					SILTY CLAY	
10 to 16	10YR 4 / 1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-045

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187381843778 | Long: -97.1897601797058 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is an emergent wetland area located north of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	90	Y	FACW
Cyperus esculentus	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-045

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-046

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189182274088 | Long: -97.1893351294224 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 567th Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-046

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
10 to 16	10YR 4 / 1	85	7.5YR 4/6	15	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-047

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0188464495227 | Long: -97.1886170859783 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Urtica dioica	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-047

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 11	10YR 4 / 2	100					SILTY CLAY	
11 to 16	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-048

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183090637497 | Long: -97.1884699284844 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is an emergent wetland area located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Typha angustifolia	95	Y	OBL
Phalaris arundinacea	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	95	x 1 =	95	
FACW species	5	x 2 =	10	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	105	(B)

Prevalence Index = B/A= 1.05

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-048

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
Soils were assumed hydric due to the presence of inundation and obligate vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	0-6	
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-049

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187527139739 | Long: -97.1877493090467 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:
The area characterized by this data form is an emergent wetland area located north of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	80	Y	FACW
Cyperus esculentus	10	N	FACW
Poa pratensis	5	N	FAC
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		205 (B)

Prevalence Index = B/A= 2.05

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-049

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
14 to 16	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-050

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187414363472 | Long: -97.1874143990428 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	100	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-050

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	
12 to 16	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-051

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0180044929863 | Long: -97.1878227160728 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:
The area characterized by this data form is an emergent wetland area located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Salix nigra	10	Y	OBL
	10	=Total Cover	
Shrub Stratum (Plot size: 30 Ft)			
Salix nigra	10	Y	OBL
	10	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	100	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	120 (A)		220 (B)

Prevalence Index = B/A= 1.83

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-051

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	GLEY 1 2.5 / 10Y	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☑ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	0-4	
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	4	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-052

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183493995275 | Long: -97.1876045166422 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	65	Y	FACU
Phalaris arundinacea	20	Y	FACW
Polygonum aviculare	10	N	FAC
Asclepias syriaca	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	10	x 3 =	30
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	100 (A)		350 (B)

Prevalence Index = B/A= 3.50

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-052

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10YR 4/2	100					SILTY CLAY	
4 to 16	10YR 4/2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-053

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0184778896367 | Long: -97.1874308159366 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is an emergent wetland area located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	70	Y	FACW
Bromus inermis	15	N	FACU
Poa pratensis	15	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	15	x 3 =	45
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	100 (A)		245 (B)

Prevalence Index = B/A= 2.45

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-053

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	GLEY 1 2.5 / 10Y	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☑ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-054

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0179115779931 | Long: -97.1868062073596 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes X** **No ____**
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
The area characterized by this data form is an emergent wetland area located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Salix nigra	15	Y	OBL
	15	=Total Cover	
Shrub Stratum (Plot size: 30 Ft)			
Salix nigra	10	Y	OBL
	10	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	70	Y	FACW
Bromus inermis	20	Y	FACU
Poa pratensis	10	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	25	x 1 =	25
FACW species	70	x 2 =	140
FAC species	10	x 3 =	30
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	125 (A)		275 (B)

Prevalence Index = B/A= 2.20

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-054

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
8 to 16	10YR 4/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-055

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0184909767377 | Long: -97.1864665395591 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	85	Y	FACU
Phalaris arundinacea	15	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	100 (A)		370 (B)

Prevalence Index = B/A= 3.70

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-055

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 1	100					SILTY CLAY	
8 to 20	10YR 3 / 1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-056

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0184874076781 | Long: -97.186332099264 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:
The area characterized by this data form is an emergent wetland area located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	85	Y	FACW
Urtica dioica	10	N	FACW
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-056

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 4 / 2	100					SILTY CLAY	
8 to 16	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-057

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183981779303 | Long: -97.1863231767217 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	60	Y	FACU
Phalaris arundinacea	35	Y	FACW
Urtica dioica	2	N	FACW
	97	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	37	x 2 =	74	
FAC species	0	x 3 =	0	
FACU species	60	x 4 =	240	
UPL species	0	x 5 =	0	
Column Totals:	97	(A)	314	(B)

Prevalence Index = B/A= 3.24

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-057

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 4 / 2	100					SILTY CLAY	
8 to 14	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
14 to 16	10YR 4 / 2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is located upslope from the adjacent wetland. The observed soil profile fails to display hydric soil indicators.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-058

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183407137712 | Long: -97.1860751179971 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Phalaris arundinacea	20	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	20	x 2 =	40	
FAC species	0	x 3 =	0	
FACU species	80	x 4 =	320	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	360	(B)

Prevalence Index = B/A= 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-058

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 4 / 2	100					SILTY CLAY	
8 to 16	10YR 5 / 1	85	7.5YR 4/6	15	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-059

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0180527991165 | Long: -97.186001354372 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Phalaris arundinacea	20	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	20	x 2 =	40	
FAC species	0	x 3 =	0	
FACU species	80	x 4 =	320	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	360	(B)

Prevalence Index = B/A= 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-059

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 4 / 2	100					SILTY CLAY	
8 to 14	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
14 to 16	10YR 4 / 2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-060

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0184097185635 | Long: -97.1854136277922 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	100	Y	FACU
Cornus drummondii	20	Y	FAC
	120	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	120 (A)		460 (B)

Prevalence Index = B/A= 3.83

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-060

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-061

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0181051473844 | Long: -97.1853565203292 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:
The area characterized by this data form is an emergent wetland area located south of US-275 and east of 567th Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	60	Y	FACW
Bromus inermis	20	Y	FACU
Cyperus esculentus	20	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	80	x 2 =	160	
FAC species	0	x 3 =	0	
FACU species	20	x 4 =	80	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	240	(B)

Prevalence Index = B/A = 2.40

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-061

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes	X	No		Depth (inches): 4
Saturation Present?	Yes	X	No		Depth (inches): 0-4

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-062

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0180290044414 | Long: -97.1851328515174 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is an emergent wetland area located south of US-275 and west of 568th Avenue.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	80	Y	FACW
Bromus inermis	10	N	FACU
Helianthus annuus	5	N	FACU
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	0	x 3 =	0
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	100 (A)		230 (B)

Prevalence Index = B/A= 2.30

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-062

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/6/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-063

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0180884910254 | Long: -97.1850448119534 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:
The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of 568th Avenue.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-063

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Saturation

Depth (inches): 8

Hydric Soil Present? Yes X No

Remarks:
A restrictive layer composed of saturated soil is present at 8 inches in depth. The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes	X	No		Depth (inches): 4
Saturation Present?	Yes	X	No		Depth (inches): 0-4

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-064

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183335760602 | Long: -97.1848830079115 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-064

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	
6 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-065

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0179137988574 | Long: -97.1848915343646 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located south of US-275 and west of 568th Avenue adjacent to a waterway. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Populus deltoides	10	Y	FAC
	10	=Total Cover	
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	80	Y	FACW
Urtica dioica	15	N	FACW
Bromus inermis	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	10	x 3 =	30
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	110 (A)		240 (B)

Prevalence Index = B/A= 2.18

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-065

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-066

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0178434071909 | Long: -97.1849210799489 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and west of 268th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	75	Y	FACU
Erigeron canadensis	10	N	FACU
Phalaris arundinacea	10	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	100 (A)		370 (B)

Prevalence Index = B/A= 3.70

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-066

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILTY CLAY	
8 to 16	10YR 3 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-067

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0178600630056 | Long: -97.1846688562924 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and west of 268th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Helianthus annuus	5	N	FACU
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	5	x 2 =	10	
FAC species	0	x 3 =	0	
FACU species	95	x 4 =	380	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	390	(B)

Prevalence Index = B/A= 3.90

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-067

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-068

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0180527989894 | Long: -97.1843785625216 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-068

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
to	/							
0 to 16	10YR 3/ 1	100					SILTY CLAY	0

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-069

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.017838647879 | Long: -97.1842762454188 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-069

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	
6 to 20	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):		
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-070

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0178551976674 | Long: -97.1817640055694 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-070

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 2/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-071

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 3-4 | Lat: 42.0179355049534 | Long: -97.1785707688612 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-071

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10YR 4 / 2	100					SILTY CLAY	
4 to 16	10YR 4 / 3	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-072

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 3-4 | Lat: 42.0179222981966 | Long: -97.1770959782116 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-072

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Due to the topographic similarities to S-066, consisting of 3-4 percent slopes, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches):	_____	
Water Table Present?	Yes _____	No X	Depth (inches):	_____	
Saturation Present?	Yes _____	No X	Depth (inches):	_____	**Wetland Hydrology Present?** Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-073

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0167819165927 | Long: -97.176093782387 | Datum: NAD 83

Soil Map Unit Name: Kezan silt loam, frequently flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located south of US-275 and west of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Schoenoplectus pungens	60	Y	OBL
Phalaris arundinacea	30	Y	FACW
Rumex altissimus	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	60	x 1 =	60
FACW species	40	x 2 =	80
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		140 (B)

Prevalence Index = B/A= 1.40

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-073

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	90	7.5YR 4/6	10	C	M	silty	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Saturation

Depth (inches): 6

Hydric Soil Present? Yes X No

Remarks:
A restrictive layer composed of saturated soil is present at 6 inches in depth. The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes	X	No		Depth (inches): 6

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-074

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0167093425295 | Long: -97.1758843895449 | Datum: NAD 83

Soil Map Unit Name: Kezan silt loam, frequently flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and west of 268th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Rumex altissimus	10	N	FACW
Helianthus annuus	5	N	FACU
Phalaris arundinacea	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	100 (A)		370 (B)

Prevalence Index = B/A= 3.70

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The observed soil profile fails to display hydric soil indicators.

SOIL

Sampling Point: S-074

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
8 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The area meets wetland hydrology criteria.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-075

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0170932942019 | Long: -97.1757802555739 | Datum: NAD 83

Soil Map Unit Name: Kezan silt loam, frequently flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	0	(A)	0	(B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-075

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 13	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
13 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-076

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0166920038838 | Long: -97.1754330803211 | Datum: NAD 83

Soil Map Unit Name: Kezan silt loam, frequently flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located south of US-275 and east of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th..

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	80	Y	FACW
Bromus inermis	15	N	FACU
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	85	x 2 =	170	
FAC species	0	x 3 =	0	
FACU species	15	x 4 =	60	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	230	(B)

Prevalence Index = B/A= 2.30

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-076

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-077

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.016830488461 | Long: -97.1754354597067 | Datum: NAD 83

Soil Map Unit Name: Kezan silt loam, frequently flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Phalaris arundinacea	10	N	FACW
Rumex altissimus	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A= 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-077

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/ 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-078

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0167819165927 | Long: -97.176093782387 | Datum: NAD 83

Soil Map Unit Name: Kezan silt loam, frequently flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and east of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- ____ Dominance Test > 50%
- ____ Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-078

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
8 to 16	10YR 4 / 2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-079

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0174410581254 | Long: -97.1752359027105 | Datum: NAD 83

Soil Map Unit Name: Kezan silt loam, frequently flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-079

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 7	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
7 to 16	10YR 3 / 1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-080

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0181263430075 | Long: -97.1751514312258 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-080

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 4 / 2	100					SILTY CLAY	
8 to 20	10YR 4 / 3	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-081

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183042076562 | Long: -97.1714226177026 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-081

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 2	100					SILTY CLAY	
20 to 26	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-082

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Convex

Slope(%): 2 | Lat: 42.0188157911439 | Long: -97.1706754676733 | Datum: NAD 83

Soil Map Unit Name: Crofton silt loam, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-082

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Due to the topographic similarities to S-076, upslope from the waterway further east, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches):	_____	
Water Table Present?	Yes _____	No X	Depth (inches):	_____	
Saturation Present?	Yes _____	No X	Depth (inches):	_____	**Wetland Hydrology Present?** Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-083

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0192726476671 | Long: -97.1700115979496 | Datum: NAD 83

Soil Map Unit Name: Crofton silt loam, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-083

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Due to the topographic similarities to S-076, upslope from the waterway further east, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches):	_____	
Water Table Present?	Yes _____	No X	Depth (inches):	_____	
Saturation Present?	Yes _____	No X	Depth (inches):	_____	**Wetland Hydrology Present?** Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-084

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0188966928948 | Long: -97.1699806640185 | Datum: NAD 83

Soil Map Unit Name: Crofton silt loam, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 568th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-084

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:
Due to the topographic similarities to S-076, upslope from the waterway further east, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? **Yes** ____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-085

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183553932706 | Long: -97.1656135640231 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area located south of US-275 and west of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	50	Y	FACU
Andropogon gerardii	20	Y	FAC
Sorghastrum nutans	15	N	FACU
Phalaris arundinacea	10	N	FACW
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	20	x 3 =	60
FACU species	65	x 4 =	260
UPL species	0	x 5 =	0
Column Totals:	100 (A)		350 (B)

Prevalence Index = B/A= 3.50

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-085

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Gravel

Depth (inches): 12

Hydric Soil Present? Yes ____ No X

Remarks:
A restrictive layer composed of gravel present at 12 inches in depth. The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-086

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0182131540245 | Long: -97.1651111899198 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent waterway located south of US-275 and west of 569th Avenue. The adjacent waterway is characterized by a 4 to 5-foot-wide channel, 20 to 30-foot-wide bank, and 20 foot deeply incised banks with 1:1 slopes. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Andropogon gerardii	15	N	FAC
Solidago canadensis	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	100 (A)		385 (B)

Prevalence Index = B/A= 3.85

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-086

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 9	10YR 3/1	100					SILTY CLAY	
9 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-087

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 02E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187874692407 | Long: -97.1654194692941 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland fringe area located north of US-275 and west of 569th Avenue along the adjacent waterway. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	90	Y	FACW
Rumex altissimus	5	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-087

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):		
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	6	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-088

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0189441802755 | Long: -97.1654068575746 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent waterway located north of US-275 and west of 569th Avenue. The adjacent waterway is characterized by a 5 to 6-foot-wide channel, 15 to 20-foot-wide bank, and 10 foot deeply incised banks with 1:1 slopes. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	100	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-088

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	
12 to 16	10YR 4/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-089

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0184082175802 | Long: -97.1648711729647 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks:

The area characterized by this data form is an upland area located south of US-275 and west of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	60	Y	FACW
Bromus inermis	40	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	100 (A)		280 (B)

Prevalence Index = B/A= 2.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-089

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-090

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Convex

Slope(%): 2 | Lat: 42.0182301676893 | Long: -97.1643000315692 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 569th Avenue. The area is a berm located between two agricultural fields. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	100	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-090

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:
Due to the topographic nature of the area, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** ____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-091

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0189198783915 | Long: -97.1625582663114 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland berm in an agricultural setting located north of US-275 and west of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	30	Y	FACU
	30	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	30 (A)		120 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Bare ground accounts for 70 percent of the coverage. The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-091

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches):

Water Table Present? Yes ____ No X Depth (inches):

Saturation Present? Yes ____ No X Depth (inches):

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-092

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189608049166 | Long: -97.1619798192275 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and west of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-092

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-093

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188922758458 | Long: -97.1616300388527 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-093

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 22	10YR 3/2	100					SILTY CLAY	
22 to 26	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-094

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0190721632003 | Long: -97.1606963381038 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and west of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-094

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	
12 to 20	10YR 4/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-095

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0193023291755 | Long: -97.1592786556295 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-095

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 2	100					SILTY CLAY	
20 to 26	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-096

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0168817137427 | Long: -97.1565560251802 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area in an isolated depression located south of US-275 and west of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	90	Y	FACW
Persicaria amphibia	10	N	OBL
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	10	x 1 =	10
FACW species	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		190 (B)

Prevalence Index = B/A= 1.90

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-096

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 3	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):		
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	6	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-097

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0169544666625 | Long: -97.1565187188177 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and west of 269th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Juniperus virginiana	10	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-097

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 4 / 3	100					SILTY CLAY	
10 to 16	10YR 4 / 3	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-098

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182973693197 | Long: -97.1530684917468 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-098

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 16	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-099

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0192569467637 | Long: -97.1490877720506 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-099

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 2	100					SILTY CLAY	
10 to 24	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-100

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.019248380853 | Long: -97.148769399962 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and east of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-100

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 2	100					SILTY CLAY	
10 to 24	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-101

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189371471623 | Long: -97.148381072528 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 569th Avenue. Drain tiles are present leading from the area. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-101

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 30	10YR 3 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-102

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183229426727 | Long: -97.1473479504202 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:

The area characterized by this data form is an emergent wetland fringe area located south of US-275 and east of 569th Avenue. The waterway adjacent to the fringe is characterized by a 1 to 2-foot-wide channel, 10-foot-wide bank, and a half foot to one foot 2:1 slope. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	90	Y	FACW
Rumex altissimus	5	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-102

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10YR 3 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
4 to 10	GLEY 1 2.5 / 10Y	90	7.5YE 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☑ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Saturation

Depth (inches): 10

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes X No Depth (inches): 10

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-103

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.018330080824 | Long: -97.1473884008335 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of 269th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Polygonum aviculare	10	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		390 (B)

Prevalence Index = B/A= 3.90

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-103

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 13	10YR 3/2	100					SILTY CLAY	
13 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-104

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0193566137339 | Long: -97.1473184951987 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-104

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10YR 3 / 2	100					SILTY CLAY	
4 to 10	10YR 3 / 2	90	7.5YR 4/6	10	C	M	SILTY CLAY	
10 to 20	10YR 4 / 1	80	7.5YR 4/6	20	C	PL	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-105

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.018766507417 | Long: -97.1473196855531 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent waterway located south of US-275 and east of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	85	Y	FACU
Phalaris arundinacea	10	N	FACW
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	100 (A)		370 (B)

Prevalence Index = B/A= 3.70

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-105

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3 / 2	100					SILTY CLAY	
12 to 16	10YR 3 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-106

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0190972521738 | Long: -97.1470377185847 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-106

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
6 to 16	10YR 3/2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-107

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 3 | Lat: 42.0188057655634 | Long: -97.1464028189327 | Datum: NAD 83

Soil Map Unit Name: Nora silty clay loam, 11 to 17 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-107

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Due to the topography consisting of 3 percent slopes, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches):	_____	
Water Table Present?	Yes _____	No X	Depth (inches):	_____	
Saturation Present?	Yes _____	No X	Depth (inches):	_____	**Wetland Hydrology Present?** Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-108

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0193494747964 | Long: -97.1470305806557 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-108

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	
6 to 20	10YR 3/2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-109

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0193459061771 | Long: -97.1467831167983 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-109

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	
6 to 20	10YR 3/2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-110

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183074340847 | Long: -97.146720916885 | Datum: NAD 83

Soil Map Unit Name: Nora silty clay loam, 11 to 17 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 569th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-110

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 4/2	70					SILTY CLAY	
0 to 20	10YR 3/2	30					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-111

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182867583958 | Long: -97.141581330293 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 570th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-111

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-112

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182787876183 | Long: -97.1392160640344 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of 570th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-112

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 7	10YR 4/1	68	7.5YR 4/6	2	C	M	SILTY CLAY	
0 to 7	10YR 3/2	30					SILTY CLAY	
7 to 20	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-113

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0182616558135 | Long: -97.1390885244236 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 570th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-113

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 4 / 2	100					SILTY CLAY	
14 to 20	10YR 3 / 1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-114

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 02E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182910123426 | Long: -97.1372036252007 | Datum: NAD 83

Soil Map Unit Name: Moody silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 570th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-114

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 4 / 2	100					SILTY CLAY	
12 to 20	10YR 4 / 3	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-115

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0194318052082 | Long: -97.1362946715982 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 570th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-115

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10YR 3/2	100					SILTY CLAY	
4 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-116

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.018192106701 | Long: -97.1359517312089 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 570th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-116

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:
Due to the topographic location, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-117

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0178589821672 | Long: -97.1352640678734 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 570th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-117

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 20	10YR 4/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-118

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188324196322 | Long: -97.134618043348 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 570th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-118

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches):

Water Table Present? Yes ____ No X Depth (inches):

Saturation Present? Yes ____ No X Depth (inches):

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-119

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.019155073895 | Long: -97.1346694397015 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 570th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-119

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 5	10YR 3 / 2	100					SILTY CLAY	
5 to 12	10YR 4 / 3	80	7.5YR 4/6	10	C	M	SILTY CLAY	
5 to 12	10YR 5 / 1	10					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-120

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183718029563 | Long: -97.1324760531415 | Datum: NAD 83

Soil Map Unit Name: Moody silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland field driveway in an agricultural setting located south of US-275 and east of 570th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-120

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Due to the topography, consisting of 2 percent slopes, and the driveway, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-121

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1-2 | Lat: 42.0183238811788 | Long: -97.1316086919816 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 570th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-121

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/1	100					SILTY CLAY	
8 to 20	10YR 2/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-122

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183861786956 | Long: -97.1268547485774 | Datum: NAD 83

Soil Map Unit Name: Moody silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland fence line in an agricultural setting located south of US-275 and west of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-122

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Due to the topography, consisting of 2 percent slopes, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-123

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182981382492 | Long: -97.1257554368863 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-123

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 24	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-124

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183423827111 | Long: -97.1225085717353 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-124

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 5	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
5 to 20	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-125

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189236837458 | Long: -97.1177962973859 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-125

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 4 / 2	100					SILTY CLAY	
6 to 20	2.5YR 4 / 3	80	7.5YR 4/6	10	C	M	SILTY CLAY	
6 to 20	10YR 5 / 1	10					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-126

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188790688874 | Long: -97.1173739427608 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	0	(A)	0	(B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-126

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 4 / 3	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-127

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0194055245045 | Long: -97.1173858407437 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-127

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 2	100					SILTY CLAY	
10 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-128

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0193510046762 | Long: -97.1168492427183 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of alfalfa. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-128

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-129

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0168986732791 | Long: -97.1167052841872 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-129

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:
Due to the area being located at the top of a hill, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? **Yes** ____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-130

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1-2 | Lat: 42.0182951189833 | Long: -97.1162484282918 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-130

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	100					SILTY CLAY	
16 to 20	10YR 3 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-131

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0189167530601 | Long: -97.1159480219086 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-131

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3 / 2	100					SILTY CLAY	
14 to 20	10YR 4 / 3	80					SILTY CLAY	
14 to 20	10YR 3 / 2	20					SILTY CLAY	
14 to 20	10YR 4 / 1	10					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-132

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0188561086112 | Long: -97.1153454425547 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and east of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-132

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 2/ 1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-133

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 5 | Lat: 42.0182469667687 | Long: -97.114610903114 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-133

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Due to the topography, consisting of 5 percent slopes, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-134

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183401864166 | Long: -97.1123019488166 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-134

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Due to the topography, consisting of 2 percent slopes, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-135

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189755023873 | Long: -97.1119093384172 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-135

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3 / 2	100					SILTY CLAY	
12 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-136

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1-2 | Lat: 42.0183055631682 | Long: -97.107647018583 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-136

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 4 / 3	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is elevated approximately 10 feet above the roadway. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-137

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Convex

Slope(%): 2 | Lat: 42.0184102601173 | Long: -97.1074875943384 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 571st Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-137

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Due to the topography, a berm consisting of 3 percent slopes, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/7/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-138

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189313618476 | Long: -97.10698314827 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area located north of US-275 and west of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	65	Y	FACU
Andropogon gerardii	20	Y	FAC
Asclepias syriaca	5	N	FACU
Schizachyrium scoparium	5	N	FACU
Sorghastrum nutans	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-138

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3 / 2	100					SILTY CLAY	
14 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-139

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0193018435818 | Long: -97.1022478666737 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and west of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Andropogon gerardii	60	Y	FAC
Solidago canadensis	25	Y	FACU
Bromus inermis	20	Y	FACU
Phalaris arundinacea	10	N	FACW
Asclepias syriaca	5	N	FACU
	120	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	60	x 3 =	180
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	120 (A)		400 (B)

Prevalence Index = B/A= 3.33

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-139

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-140

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0194317622956 | Long: -97.1022921240669 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and west of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	90	Y	FACW
Bromus inermis	10	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	90	x 2 =	180	
FAC species	0	x 3 =	0	
FACU species	10	x 4 =	40	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	220	(B)

Prevalence Index = B/A= 2.20

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-140

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-141

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0201225632261 | Long: -97.0979218633744 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland area adjacent to a waterway located north of US-275 and west of 252nd Avenue. The adjacent waterway is characterized by a 1 to 2-foot-wide channel, 2 to 3-foot-wide banks, and 2-foot tall 2:1 slope sides. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	85	Y	FACU
Phalaris arundinacea	10	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	0	x 1 = 0
FACW species	15	x 2 = 30
FAC species	0	x 3 = 0
FACU species	85	x 4 = 340
UPL species	0	x 5 = 0
Column Totals:	100 (A)	370 (B)

Prevalence Index = B/A= 3.70

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-141

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-142

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0202641414083 | Long: -97.0975106330953 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland area adjacent to a waterway located north of US-275 and east of 572nd Avenue. The adjacent waterway is characterized by a 1 to 2-foot-wide channel, 2 to 3-foot-wide banks, and 2-foot tall 2:1 slope sides. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	75	Y	FACU
Urtica dioica	10	N	FACW
Phalaris arundinacea	5	N	FACW
Rumex altissimus	5	N	FACW
	95	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	95 (A)		340 (B)

Prevalence Index = B/A= 3.58

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-142

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3 / 2	100					SILTY CLAY	
12 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is elevated approximately 3 feet above the adjacent channel. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-143

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 3 | Lat: 42.0189037811457 | Long: -97.0963063361601 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-143

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:
Due to the topography, consisting of 3 percent slopes, and location on the top of a hill, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches):	_____	
Water Table Present?	Yes _____	No X	Depth (inches):	_____	
Saturation Present?	Yes _____	No X	Depth (inches):	_____	**Wetland Hydrology Present?** **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-144

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0180575240838 | Long: -97.0971365465195 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton complex, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland swale in an agricultural setting located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Cannabis sativa	10	N	UPL
Chenopodium album	10	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	10	x 5 =	50
Column Totals:	100 (A)		410 (B)

Prevalence Index = B/A= 4.10

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Cannabis sativa is not listed in the 2016 NWPL and is therefore considered an upland species. The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-144

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/ 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-145

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0189495856299 | Long: -97.0928439226183 | Datum: NAD 83

Soil Map Unit Name: Crofton silt loam, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland fence line in an agricultural setting located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-145

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:
Due to the topography, consisting of 2 percent slopes, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** ____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-146

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0184246772469 | Long: -97.0894729406688 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton silt loam, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-146

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3/2	100					SILTY CLAY	
14 to 24	10YR 4/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-147

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0193352234288 | Long: -97.089025347731 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area adjacent to a waterway located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Phalaris arundinacea	5	N	FACW
Rumex altissimus	5	N	FACW
Urtica dioica	5	N	FACW
	95	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	95 (A)		350 (B)

Prevalence Index = B/A= 3.68

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-147

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:
Due to the topographic and vegetation similarities to S-137, consisting of 2 percent slopes, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches):	_____	
Water Table Present?	Yes _____	No X	Depth (inches):	_____	
Saturation Present?	Yes _____	No X	Depth (inches):	_____	**Wetland Hydrology Present?** **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-148

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188287100059 | Long: -97.0872740574924 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton silt loam, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	85	Y	FACU
Cyperus esculentus	5	N	FACW
Phalaris arundinacea	5	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	100 (A)		370 (B)

Prevalence Index = B/A= 3.70

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-148

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3/2	100					SILTY CLAY	
14 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-149

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.01883252975 | Long: -97.0867519100227 | Datum: NAD 83

Soil Map Unit Name: Nora-Crofton silt loam, 6 to 11 percent slopes, eroded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Salix nigra	2	N	OBL
	2	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	65	Y	FACW
Bromus inermis	15	N	FACU
Cyperus esculentus	15	N	FACW
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	2	x 1 =	2
FACW species	85	x 2 =	170
FAC species	0	x 3 =	0
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	102 (A)		232 (B)

Prevalence Index = B/A= 2.27

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-149

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):		
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	6	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-150

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188347473303 | Long: -97.0861578482685 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	____	No	X
Hydric Soil Present?	Yes	____	No	X
Wetland Hydrology Present?	Yes	X	No	____

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:

The area characterized by this data form is an upland outpoint to the between two emergent wetland located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Solidago canadensis	60	Y	FACU
Cyperus esculentus	20	Y	FACW
Bromus inermis	10	N	FACU
Phalaris arundinacea	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	100 (A)		340 (B)

Prevalence Index = B/A= 3.40

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-150

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-151

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188353827414 | Long: -97.0857512245262 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a scrub-shrub wetland area located south of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Salix nigra	30	Y	OBL
	30	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	60	Y	FACW
Urtica dioica	25	Y	FACW
Bromus inermis	15	N	FACU
Rumex altissimus	5	N	FACW
	105	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	30	x 1 =	30
FACW species	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	135 (A)		270 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-151

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):		
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	4	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-152

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0188071265581 | Long: -97.0857414091867 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent scrub-shrub wetland located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Salix nigra	5	Y	OBL
	5	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	85	Y	FACU
Phalaris arundinacea	15	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	5	x 1 =	5
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	105 (A)		375 (B)

Prevalence Index = B/A= 3.57

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-152

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/ 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-153

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188394635663 | Long: -97.0855452356316 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	75	Y	FACW
Bromus inermis	10	N	FACU
Urtica dioica	10	N	FACW
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	100 (A)		220 (B)

Prevalence Index = B/A= 2.20

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-153

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 2	100					SILTY CLAY	
10 to 20	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	q

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-154

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188601081154 | Long: -97.0836185304517 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	____	No	X
Hydric Soil Present?	Yes	____	No	X
Wetland Hydrology Present?	Yes	X	No	____

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 1.09 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	70	Y	FACU
Phalaris arundinacea	25	Y	FACW
Urtica dioica	10	N	FACW
	105	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	105 (A)		350 (B)

Prevalence Index = B/A= 3.33

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-154

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-155

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.01901369897 | Long: -97.0830008495924 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland field access drive in an agricultural setting located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-155

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Due to the topography, consisting of 2 percent slopes in an elevated field access, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-156

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188164475096 | Long: -97.082848988332 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Phalaris arundinacea	20	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A= 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-156

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/ 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is located approximately 3 feet above the adjacent emergent wetland. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-157

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188367920044 | Long: -97.0828525578512 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	80	Y	FACW
Urtica dioica	20	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-157

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/1	100					SILTY CLAY	
8 to 20	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-158

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188711749438 | Long: -97.0819409628365 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	____	No	X
Hydric Soil Present?	Yes	____	No	X
Wetland Hydrology Present?	Yes	X	No	____

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	70	Y	FACU
Phalaris arundinacea	20	Y	FACW
Cyperus esculentus	5	N	FACW
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	100 (A)		340 (B)

Prevalence Index = B/A= 3.40

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-158

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3/1	100					SILTY CLAY	
14 to 20	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-159

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 03E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 10 | Lat: 42.0189548689862 | Long: -97.0782218032617 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland to the adjacent channel located north of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Acer negundo	30	Y	FAC
	30	=Total Cover	
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	100	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	130 (A)		490 (B)

Prevalence Index = B/A= 3.77

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-159

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Riparian

Depth (inches): 16

Hydric Soil Present? Yes ____ No X

Remarks:
A restrictive layer composed of riparian trees is present at 16 inches in depth. The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is located on an incised slope. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-160

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 03E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 10 | Lat: 42.018552740752 | Long: -97.0783015161411 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area adjacent to a channel located south of US-275 and east of 572nd Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Ulmus pumila	15	Y	UPL
	15	=Total Cover	
Shrub Stratum (Plot size: 30 Ft)			
Ulmus pumila	10	Y	UPL
	10	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	85	Y	FACU
Urtica dioica	15	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	25	x 5 =	125
Column Totals:	125 (A)		495 (B)

Prevalence Index = B/A= 3.96

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-160

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-161

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 03E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 10 | Lat: 42.0186038987939 | Long: -97.0779541142447 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area adjacent to the waterway located south of US-275 and west of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Ulmus pumila	5	Y	UPL
Juglans nigra	2	N	FACU
	7	=Total Cover	
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	100	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	102	x 4 =	408
UPL species	5	x 5 =	25
Column Totals:	107 (A)		433 (B)

Prevalence Index = B/A= 4.05

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-161

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3/2	100					SILTY CLAY	
14 to 20	10YR 4/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-162

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 03E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0189013315415 | Long: -97.0779219912803 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland bench adjacent to the channel located north of US-275 and west of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Acer negundo	15	Y	FAC
	15	=Total Cover	
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	100	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	115 (A)		445 (B)

Prevalence Index = B/A= 3.87

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-162

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 2	100					SILTY CLAY	
10 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-163

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 27 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0204002038726 | Long: -97.0773577392922 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and west of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-163

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 1	100					SILTY CLAY	
20 to 30	10YR 3 / 1	78	7.5YR 4/6	2	C	M	SILTY CLAY	
20 to 30	10YR 4 / 2	20					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☑ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-164

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0184770007353 | Long: -97.0739950658306 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	0	(A)	0	(B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-164

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-165

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0184484471305 | Long: -97.0735417787395 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-165

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILTY CLAY	
8 to 20	10YR 3 / 2	80					SILTY CLAY	
8 to 20	10YR 4 / 2	18	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is upslope from the adjacent wetland in an agrcultural setting. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-166

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183714914105 | Long: -97.0713096060752 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-166

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Due to the topographic similarities to S-0160, consisting of 2 percent slopes and up gradient, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-167

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0185034889108 | Long: -97.0684350319844 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-167

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:
Due to the topographic similarities to S-161, consisting of 2 percent slopes and a field driveway between two fields, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? **Yes** ____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-168

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0185009146467 | Long: -97.0661299549979 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-168

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 25	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-169

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183558861829 | Long: -97.059673407646 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-169

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/2	60					SILTY CLAY	
0 to 20	10YR 4/2	40					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-170

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.018491079205 | Long: -97.0567597576807 | Datum: NAD 83

Soil Map Unit Name: Alcester silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	0	(A)	0	(B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-170

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/1	100					SILTY CLAY	
8 to 20	10YR 3/1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-171

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189622126543 | Long: -97.0558912540254 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-171

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILTY CLAY	
8 to 20	10YR 3 / 2	58	7.5YR 4/6	2	C	M	SILTY CLAY	
8 to 20	10YR 4 / 2	40					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-172

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0185068484061 | Long: -97.0550200909949 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-172

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 5	10YR 3/1	100					SILTY CLAY	
5 to 20	10YR 3/1	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-173

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0184982178398 | Long: -97.0540043416745 | Datum: NAD 83

Soil Map Unit Name: Hobbs silt loam, 0 to 2 percent slopes, occasionally flooded, cool | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-173

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 1	100					SILTY CLAY	
8 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is elevated above two wetlands in agricultural settings. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-174

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0184729119085 | Long: -97.0534473485638 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-174

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3 / 2	100					SILTY CLAY	
12 to 20	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☑ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-175

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188614490159 | Long: -97.0536015943503 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X
Hydric Soil Present?	Yes	No	X
Wetland Hydrology Present?	Yes	No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of N-15.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-175

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/ 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-176

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0190512007719 | Long: -97.0531662940911 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-176

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3/2	100					SILTY CLAY	
14 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-177

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188490954334 | Long: -97.0530273431038 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	70	Y	FACU
Urtica dioica	20	Y	FACW
Phalaris arundinacea	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	30	x 2 =	60	
FAC species	0	x 3 =	0	
FACU species	70	x 4 =	280	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	340	(B)

Prevalence Index = B/A= 3.40

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-177

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILTY CLAY	
8 to 20	10YR 3 / 2	80					SILTY CLAY	
8 to 20	10YR 4 / 2	18	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-178

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188312486864 | Long: -97.0528619711978 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	85	Y	FACW
Urtica dioica	15	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-178

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	70					SILTY CLAY	
0 to 8	10YR 4/2	25	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Saturation

Depth (inches): 8

Hydric Soil Present? Yes X No

Remarks:
A restrictive layer composed of saturated soil is present at 8 inches in depth. The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):		
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	8	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-179

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0184824297804 | Long: -97.0520158645644 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-179

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/1	100					SILTY CLAY	
12 to 20	10YR 2/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-180

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188262016923 | Long: -97.0518397298456 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	70	Y	FACW
Typha angustifolia	20	Y	OBL
Lemna minor	10	N	OBL
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	30	x 1 =	30
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		170 (B)

Prevalence Index = B/A= 1.70

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-180

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☑ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches):	2-6	
Water Table Present?	Yes ____	No X	Depth (inches):	____	
Saturation Present?	Yes X	No ____	Depth (inches):	0	

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-181

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 32 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0191189313125 | Long: -97.0516909691991 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X
Hydric Soil Present?	Yes	No	X
Wetland Hydrology Present?	Yes	No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland area located north of US-275 and east of N-15.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	60	Y	FACU
Asclepias syriaca	20	Y	FACU
Polygonum aviculare	20	Y	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-181

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-182

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188221800445 | Long: -97.050921456616 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an open water area located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Lemna minor	10	Y	OBL
Phalaris arundinacea	10	Y	FACW
	20	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	10	x 1 =	10
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	20 (A)		30 (B)

Prevalence Index = B/A= 1.50

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-182

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
Soils were assumed hydric due to the presence of inundation and obligate vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	1-4	
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	0	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-183

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0193263880576 | Long: -97.0506627293468 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-183

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 1	95	7.5YR 4/6	5	C	M	SILTY CLAY	
6 to 20	10YR 3 / 1	90	7.5YR 4/6	10	c	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-184

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0191265132013 | Long: -97.0501373448293 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-184

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 1	95	7.5YR 4/6	5	C	M	SILTY CLAY	
6 to 20	10YR 3 / 1	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-185

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0190713098778 | Long: -97.0492597992818 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-185

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 2/1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Saturation

Depth (inches): 12

Hydric Soil Present? Yes X No

Remarks:
A restrictive layer composed of saturated soil is present at 12 inches in depth. The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes	X	No		Depth (inches): 12

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-186

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Convex

Slope(%): 2 | Lat: 42.0189281618148 | Long: -97.0490211394877 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	
Hydric Soil Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Cornus drummondii	30	Y	FAC
	30	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Urtica dioica	15	N	FACW
Cornus drummondii	5	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	35	x 3 =	105
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	130 (A)		455 (B)

Prevalence Index = B/A= 3.50

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-186

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/1	100					SILTY CLAY	
12 to 20	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-187

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188760511265 | Long: -97.0489454717425 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	80	Y	FACW
	80	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		160 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)

Open water compromises approximately 20 percent of the area. The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-187

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 2/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Saturation

Depth (inches): 12

Hydric Soil Present? Yes X No

Remarks:
A restrictive layer composed of saturated soil is present at 12 inches in depth. The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	0-5	
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	0	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-188

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0193010783873 | Long: -97.0488838992536 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-188

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-189

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189445801489 | Long: -97.0488762297647 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	0	(A)	0	(B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-189

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-190

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.018301834889 | Long: -97.0491088951247 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-190

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 13	10YR 3/1	100					SILTY CLAY	
13 to 20	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-191

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188225132646 | Long: -97.048804131789 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	60	Y	FACW
Cyperus esculentus	20	Y	FACW
Bromus inermis	10	N	FACU
Urtica dioica	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	100 (A)		220 (B)

Prevalence Index = B/A= 2.20

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-191

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-192

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0185207446232 | Long: -97.048684161842 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located south of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Cyperus esculentus	30	Y	FACW
Phalaris arundinacea	30	Y	FACW
Panicum virgatum	20	Y	FAC
Bromus inermis	10	N	FACU
Polygonum aviculare	5	N	FAC
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	65	x 2 =	130
FAC species	25	x 3 =	75
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	100 (A)		245 (B)

Prevalence Index = B/A= 2.45

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-192

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 1	98	7.5YR 4/6	2	C	M	SILTY CLAY	
8 to 20	10YR 3 / 1	55	7.5YR 4/6	5	C	M	SILTY CLAY	
8 to 20	10YR 4 / 2	20					SILTY CLAY	
8 to 20	10YR 3 / 2	20					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-193

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0185350214576 | Long: -97.0483248621963 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	60	Y	FACU
Panicum virgatum	35	Y	FAC
Polygonum aviculare	5	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	40	x 3 = 120
FACU species	60	x 4 = 240
UPL species	0	x 5 = 0
Column Totals:	100 (A)	360 (B)

Prevalence Index = B/A= 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-193

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 18	10YR 2/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-194

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189601021868 | Long: -97.0482995045444 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of the west junction N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-194

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-195

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188823357456 | Long: -97.047558957115 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-195

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 16	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-196

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0184518379264 | Long: -97.0425384028844 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland field drive in an agricultural setting located south of US-275 and west of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-196

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:
Due to the topography, consisting of 2 percent slopes, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches):	_____	
Water Table Present?	Yes _____	No X	Depth (inches):	_____	
Saturation Present?	Yes _____	No X	Depth (inches):	_____	**Wetland Hydrology Present?** **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-197

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0192016539673 | Long: -97.0401120665759 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-197

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 24	10YR 3 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-198

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0192102196222 | Long: -97.0398465193961 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-198

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 2	100					SILTY CLAY	
6 to 16	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-199

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.019433507974 | Long: -97.039927897097 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-199

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 2	100					SILTY CLAY	
6 to 16	10R 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-200

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0201605504883 | Long: -97.0397699555924 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-200

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 2	100					SILTY CLAY	
6 to 16	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-201

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187880559082 | Long: -97.0400813723013 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks:

The area characterized by this data form is an upland area located north of US-275 and west of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	60	Y	FACW
Bromus inermis	40	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	100 (A)		280 (B)

Prevalence Index = B/A= 2.80

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- ____ Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-201

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3 / 2	100					SILTY CLAY	
14 to 20	10YR 3 / 2	80					SILTY CLAY	
14 to 20	10YR 4 / 2	18	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-202

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.018416859405 | Long: -97.0400885106048 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-202

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	
14 to 20	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-203

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0185139420198 | Long: -97.0395788292879 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and west of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Phalaris arundinacea	10	N	FACW
Rumex altissimus	5	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A= 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-203

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	
16 to 20	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-204

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 35 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183868785271 | Long: -97.0393703884998 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located south of US-275 and west of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	100	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-204

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Saturation

Depth (inches): 6

Hydric Soil Present? Yes X No

Remarks:
A restrictive layer composed of saturated soil is present at 6 inches in depth. The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	2-6	
Water Table Present?	Yes X	No	Depth (inches):	0	
Saturation Present?	Yes X	No	Depth (inches):	6	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-205

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183102814504 | Long: -97.0366984285356 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area located north of US-275 and west of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Urtica dioica	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A = 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-205

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 2	100					SILTY CLAY	
10 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-206

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0192416283123 | Long: -97.0394224987637 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:

The area characterized by this data form is an emergent fringe wetland area located north of US-275 and west of 575th Avenue. The adjacent channel is characterized by a 2-foot-wide channel, 6-foot-wide top of bank, and 1 to 2-foot-tall bank with 2:1 slope. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	100	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-206

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 20	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-207

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0187514734969 | Long: -97.0375289392471 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Phalaris arundinacea	10	N	FACW
Glechoma hederacea	5	N	FACU
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	100 (A)		370 (B)

Prevalence Index = B/A= 3.70

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-207

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 18	10YR 3/2	80					SILTY CLAY	
0 to 18	10YR 4/2	18	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-208

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187486175913 | Long: -97.0373133607818 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	90	Y	FACW
Rumex altissimus	5	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-208

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3 / 1	50					SILTY CLAY	
0 to 6	10YR 4 / 1	45	7.5YR 4/6	5	C	M	SILTY CLAY	
6 to 18	10YR 3 / 1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-209

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 26 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189046970465 | Long: -97.039486745232 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-209

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 1	100					SILTY CLAY	
10 to 20	10YR 3 / 1	80					SILTY CLAY	
10 to 20	10YR 4 / 2	18	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-210

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188986426914 | Long: -97.0340072038416 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	0	(A)	0	(B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-210

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 1	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-211

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0190314169042 | Long: -97.0338087567056 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-211

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-212

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189842752148 | Long: -97.0331808157035 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	0	(A)	0	(B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-212

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 1	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-213

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0189890344482 | Long: -97.0329470336367 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____ No X	
Wetland Hydrology Present?	Yes ____ No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-213

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3 / 1	100					SILTY CLAY	
16 to 20	10YR 3 / 1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is elevated above the adjacent wetlands in agricultural settings. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-214

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189557219786 | Long: -97.0327281231036 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-214

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3 / 1	95	7.5YR 4/6	5	C	M	SILTY CLAY	
12 to 20	10YR 3 / 1	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-215

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188581638226 | Long: -97.0322760261001 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-215

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3 / 1	95	7.5YR 4/6	5	C	M	SILTY CLAY	
12 to 20	10YR 3 / 1	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-216

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182297709369 | Long: -97.0321788149335 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-216

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-217

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183555018184 | Long: -97.032167572531 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-217

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-218

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188640766836 | Long: -97.0315991606746 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-218

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3/1	95	7.5YR 4/6	5	C	M	SILTY CLAY	
10 to 20	10YR 2/1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-219

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188365956486 | Long: -97.0297385269495 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	0	(A)	0	(B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-219

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 4/2	100					SILTY CLAY	
8 to 20	10YR 4/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-220

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.019349037738 | Long: -97.0296819486469 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-220

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3 / 2	100					SILTY CLAY	
16 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/8/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-221

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182051429667 | Long: -97.0297812704449 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-221

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3/1	100					SILTY CLAY	
10 to 20	10YR 2/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-222

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0190570891083 | Long: -97.0294958148472 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent linear wetland area located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	40	Y	FACW
Urtica dioica	20	Y	FACW
Galium aparine	10	N	FACU
Rumex altissimus	10	N	FACW
	80	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	80 (A)		180 (B)

Prevalence Index = B/A= 2.25

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-222

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):		
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	6	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-223

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0190777911565 | Long: -97.029430140879 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Helianthus annuus	10	N	FACU
Urtica dioica	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-223

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	
6 to 16	10YR 4/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is located on the top of a berm surrounding the channel. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-224

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 3 | Lat: 42.0188065326056 | Long: -97.0294601229217 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland area adjacent to the channel located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Rumex altissimus	5	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-224

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILTY CLAY	
8 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-225

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188329441782 | Long: -97.0293080750176 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	80	Y	FACW
Urtica dioica	20	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-225

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
8 to 20	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-226

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182217991686 | Long: -97.0292115090499 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-226

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	
12 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-227

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Convex

Slope(%): 1 | Lat: 42.0183763967285 | Long: -97.0291766373433 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of 575th Avenue. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Urtica dioica	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-227

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 20	10YR 4/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-228

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0184791898964 | Long: -97.0290120966245 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located south of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	85	Y	FACW
Bromus inermis	5	N	FACU
Rumex altissimus	5	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	100 (A)		210 (B)

Prevalence Index = B/A= 2.10

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-228

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-229

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0190371017066 | Long: -97.0289839922338 | Datum: NAD 83

Soil Map Unit Name: Muir silty clay loam, rarely flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-229

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 26	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-230

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0189999345962 | Long: -97.0280830365981 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-230

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 26	10YR 3 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-231

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188225677422 | Long: -97.0268329642338 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No X
Hydric Soil Present?	Yes	No X
Wetland Hydrology Present?	Yes	No X

Is the Sampled Area within a Wetland? **Yes** **No X**

Remarks:
The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of N-15.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- ____ Dominance Test > 50%
- ____ Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** **No X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-231

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 16	10YR 2/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-232

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187268280991 | Long: -97.0265368405083 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Cyperus esculentus	10	N	FACW
Phalaris arundinacea	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A= 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-232

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-233

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187211168916 | Long: -97.0262555887918 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	65	Y	FACW
Cyperus esculentus	20	Y	FACW
Rumex altissimus	10	N	FACW
Bromus inermis	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	100 (A)		210 (B)

Prevalence Index = B/A= 2.10

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-233

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-234

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182495006077 | Long: -97.0244949463217 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No		
Hydric Soil Present?	Yes		No	X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Wetland Hydrology Present?	Yes	X	No		

Remarks:

The area characterized by this data form is an upland area located south of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Salix nigra	5	Y	OBL
	5	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	85	Y	FACW
Typha angustifolia	10	N	OBL
Bromus inermis	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	85	x 2 =	170
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	105 (A)		205 (B)

Prevalence Index = B/A= 1.95

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** **X** **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-234

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-235

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183256425872 | Long: -97.0244149961096 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Cornus drummondii	10	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		390 (B)

Prevalence Index = B/A= 3.90

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-235

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	
12 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-236

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.018860941908 | Long: -97.0213852282439 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-236

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 32	10YR 2/1	100					SILTY CLAY	
32 to 36	10YR 3/2	90					SILTY CLAY	
32 to 36	10YR 4/2	10					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-237

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189884814508 | Long: -97.020404414618 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-237

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 30	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-238

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0193749059159 | Long: -97.0203653910826 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-238

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 30	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-239

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Convex

Slope(%): 2 | Lat: 42.0189532654466 | Long: -97.0201674202941 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	95	Y	FACU
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	100 (A)		390 (B)

Prevalence Index = B/A= 3.90

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-239

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-240

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0192721132097 | Long: -97.0198828372905 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	95	Y	FACW
Polygonum aviculare	5	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		205 (B)

Prevalence Index = B/A= 2.05

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-240

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/1	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):		
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	4	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-241

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 25 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0195785879967 | Long: -97.0197876583375 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Phalaris arundinacea	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-241

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/ 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-242

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0195250253344 | Long: -97.0194022077943 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	60	Y	FACW
Lemna minor	30	Y	OBL
Typha angustifolia	10	N	OBL
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	40	x 1 =	40
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		160 (B)

Prevalence Index = B/A= 1.60

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-242

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
Soils were assumed hydric due to the presence of inundation and obligate vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	3-6	
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	0	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-243

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0193460890059 | Long: -97.0193022705054 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Asclepias syriaca	10	N	FACU
Phalaris arundinacea	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-243

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is located approximately 3 feet above the adjacent wetland. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-244

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0178902096751 | Long: -97.0203040812987 | Datum: NAD 83

Soil Map Unit Name: Lamo silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Poa pratensis	10	Y	FAC
Rumex altissimus	10	Y	FACW
	20	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	0	x 1 = 0
FACW species	10	x 2 = 20
FAC species	10	x 3 = 30
FACU species	0	x 4 = 0
UPL species	0	x 5 = 0
Column Totals:	20 (A)	50 (B)

Prevalence Index = B/A = 2.50

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)

Approximately 80 percent of the ground was bare. The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-244

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 1	100					SILTY CLAY	
8 to 20	10YR 4 / 1	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-245

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.018213815919 | Long: -97.0196996975622 | Datum: NAD 83

Soil Map Unit Name: Lamo silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an scrub-shrub wetland area located south of US-275 and west of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Cornus drummondii	30	Y	FAC
	30	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	95	Y	FACW
Bromus inermis	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	30	x 3 =	90
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	130 (A)		300 (B)

Prevalence Index = B/A= 2.31

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-245

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 1	100					SILTY CLAY	
8 to 20	10YR 4 / 1	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-246

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0179187625939 | Long: -97.0194213008093 | Datum: NAD 83

Soil Map Unit Name: Lamo silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-246

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 1	100					SILTY CLAY	
8 to 16	10YR 3 / 1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-247

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0181733652444 | Long: -97.0188835423494 | Datum: NAD 83

Soil Map Unit Name: Lamo silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-247

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 24	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-248

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183946379777 | Long: -97.0186631432895 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:

The area characterized by this data form is an emergent wetland fringe area adjacent to a waterway located south of US-275 and east of the east junction of N-15. The waterway is characterized by a 6-foot-wide channel, 30-foot-wide top of bank, and 1-foot-tall bank with 2:1 slopes. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	65	Y	FACW
Lemna minor	15	N	OBL
Typha angustifolia	15	N	OBL
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	30	x 1 =	30
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		170 (B)

Prevalence Index = B/A= 1.70

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-248

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
Soils were assumed hydric due to the presence of inundation and obligate vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	3-12	
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	0	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-249

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0192681417302 | Long: -97.0150788761335 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-249

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 36	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches):

Water Table Present? Yes ____ No X Depth (inches):

Saturation Present? Yes ____ No X Depth (inches):

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-250

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0190150269329 | Long: -97.0137772513122 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-250

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 26	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-251

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0180436116976 | Long: -97.013846018461 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-251

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 24	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-252

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0188972004001 | Long: -97.013350407957 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Phalaris arundinacea	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-252

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	
6 to 16	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-253

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189300369626 | Long: -97.0133211405759 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Typha angustifolia	70	Y	OBL
Phalaris arundinacea	30	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	70	x 1 =	70
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		130 (B)

Prevalence Index = B/A= 1.30

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-253

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
Soils were assumed hydric due to the presence of inundation and obligate vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches):	2	
Water Table Present?	Yes ____	No X	Depth (inches):	____	
Saturation Present?	Yes ____	No X	Depth (inches):	____	

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-254

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0190887896376 | Long: -97.0129670444789 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-254

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 1	100					SILTY CLAY	
20 to 28	10YR 3 / 1	100					SILTY CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-255

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0186982554417 | Long: -97.0127290543042 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	30	Y	FACW
Schoenoplectus pungens	30	Y	OBL
Typha angustifolia	20	Y	OBL
Polygonum aviculare	10	N	FAC
Urtica dioica	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	40	x 2 =	80
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		160 (B)

Prevalence Index = B/A= 1.60

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-255

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
Soils were assumed hydric due to the presence of inundation and obligate vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	0-3	
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	0	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-256

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Convex

Slope(%): 2 | Lat: 42.0187667832794 | Long: -97.0127376201133 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Cornus drummondii	5	Y	FAC
	5	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Helianthus annuus	5	N	FACU
Phalaris arundinacea	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	5	x 3 =	15
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	105 (A)		405 (B)

Prevalence Index = B/A= 3.86

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-256

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is elevated approximately 2-3 feet above the adjacent wetland. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-257

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.017993048118 | Long: -97.011463583158 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-257

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 24	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-258

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0190928662497 | Long: -97.0094596479985 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-258

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:
Due to the topographic similarities to S-249, consisting of 1 percent slopes and up slope from field edges, a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-259

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188258903249 | Long: -97.0088464615764 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-259

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/1	100					SILTY CLAY	
6 to 18	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-260

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.017976422775 | Long: -97.0087303829537 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of the east junction of N-15. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-260

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 28	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-261

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0179662522959 | Long: -97.0061845993257 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-261

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 26	10YR 2/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	____	No	X	Depth (inches):
Water Table Present?	Yes	____	No	X	Depth (inches):
Saturation Present?	Yes	____	No	X	Depth (inches):

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-262

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Convex

Slope(%): 2 | Lat: 42.018323977131 | Long: -97.0054655506706 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	45	Y	FACU
Solidago canadensis	20	Y	FACU
Erigeron canadensis	15	N	FACU
Cirsium arvense	10	N	FACU
	90	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	90 (A)		360 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-262

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 3	10YR 3/2	100					SILTY CLAY	
3 to 16	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-263

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0189093710454 | Long: -97.00530053954 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland and erosional feature located north of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	70	Y	FACU
Taraxacum officinale	20	Y	FACU
Conium maculatum	5	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-263

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
to	/							
0 to 16	10YR 3/ 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-264

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187023578096 | Long: -97.0051363576652 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	75	Y	FACW
Bromus inermis	10	N	FACU
Urtica dioica	10	N	FACW
Polygonum aviculare	5	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	85	x 2 =	170
FAC species	5	x 3 =	15
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	100 (A)		225 (B)

Prevalence Index = B/A= 2.25

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-264

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
8 to 16	10YR 4 / 1	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-265

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183314323525 | Long: -97.0049549189892 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-265

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	
6 to 16	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No X	Depth (inches):	
Water Table Present?	Yes	No X	Depth (inches):	
Saturation Present?	Yes	No X	Depth (inches):	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-266

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0190471747361 | Long: -97.0044514252249 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-266

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3/2	100					SILTY CLAY	
14 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-267

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188358783103 | Long: -97.0044542800868 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-267

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 1	100					SILTY CLAY	
8 to 20	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-268

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 31 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183247706657 | Long: -97.004439527102 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-268

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 26	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-269

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 30 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0186951997643 | Long: -97.0018035755172 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	60	Y	FACU
Phalaris arundinacea	30	Y	FACW
Cyperus esculentus	5	N	FACW
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	0	x 3 =	0
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	100 (A)		320 (B)

Prevalence Index = B/A= 3.20

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-269

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILTY CLAY	
8 to 16	10YR 4 / 1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-270

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183378075781 | Long: -96.9995508410836 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	____	No	X
Hydric Soil Present?	Yes	____	No	X
Wetland Hydrology Present?	Yes	X	No	____

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-270

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	
6 to 20	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-271

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183492294339 | Long: -96.9987856074171 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-271

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILTY CLAY	
8 to 20	10YR 4 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-272

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183292413849 | Long: -96.9981388690366 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-272

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILTY CLAY	
8 to 16	10YR 3 / 2	80					SILTY CLAY	
8 to 16	10YR 4 / 2	18	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is up grade from the adjacent wetland in an agricultural setting. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-273

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187442688497 | Long: -96.9981670298093 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-273

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 2	100					SILTY CLAY	
10 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-274

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189319197095 | Long: -96.9983551269921 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-274

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3 / 2	100					SILTY CLAY	
14 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-275

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.018334952765 | Long: -96.9971522653086 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-275

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3/2	100					SILTY CLAY	
10 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-276

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188739355671 | Long: -96.9956836545115 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland area located north of US-275 and west of S Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Polygonum achoreum	15	N	FAC
Convolvulus arvensis	5	N	UPL
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	80	x 4 =	320
UPL species	5	x 5 =	25
Column Totals:	100 (A)		390 (B)

Prevalence Index = B/A= 3.90

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Convolvulus arvensis is not listed in the 2016 NWPL and is therefore considered an upland species. The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-276

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches):

Water Table Present? Yes ____ No X Depth (inches):

Saturation Present? Yes ____ No X Depth (inches):

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-277

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0172302875042 | Long: -96.9952726109139 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	____	No	X
Hydric Soil Present?	Yes	____	No	X
Wetland Hydrology Present?	Yes	X	No	____

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-277

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/1	100					SILTY CLAY	
12 to 20	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-278

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.017691427113 | Long: -96.995306874515 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-278

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	
12 to 20	10YR 4/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is up gradient from the adjacent wetland in an agricultural setting. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-279

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0188243682972 | Long: -96.9953547019119 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-279

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 2	100					SILTY CLAY	
10 to 16	10YR 4 / 2	100					SILTY CLAY	
16 to 30	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area displays wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-280

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0190970544286 | Long: -96.9950962922819 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-280

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3 / 2	100					SILTY CLAY	
12 to 20	10YR 4 / 2	100					SILTY CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Alfalfa was present and not stressed or stunted. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-281

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188042744837 | Long: -96.9946244836934 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-281

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 2	95	7.5YR 4/6	5	C	M	SILTY CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-282

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0187907696999 | Long: -96.9931744016313 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-282

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 13	10YR 3/2	100					SILTY CLAY	
13 to 20	10YR 3/1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-283

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187634059127 | Long: -96.992170268997 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural field located north of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-283

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3/2	100					SILTY CLAY	
10 to 20	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-284

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0186801247661 | Long: -96.9921857352003 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Phalaris arundinacea	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-284

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is up gradient from the adjacent wetland. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-285

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0187051092096 | Long: -96.9917134122441 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.don

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	50	Y	FACW
Polygonum aviculare	50	Y	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	50	x 2 =	100	
FAC species	50	x 3 =	150	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	250	(B)

Prevalence Index = B/A= 2.50

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-285

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-286

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187039193248 | Long: -96.9902874011 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	70	Y	FACU
Phalaris arundinacea	20	Y	FACW
	90	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	20	x 2 =	40	
FAC species	0	x 3 =	0	
FACU species	70	x 4 =	280	
UPL species	0	x 5 =	0	
Column Totals:	90	(A)	320	(B)

Prevalence Index = B/A = 3.56

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-286

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	
6 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-287

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188038573062 | Long: -96.9898995491667 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural field located north of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-287

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3 / 2	100					SILTY CLAY	
14 to 16	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-288

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187039196676 | Long: -96.9892263996379 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Polygonum aviculare	10	N	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		390 (B)

Prevalence Index = B/A= 3.90

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-288

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is up gradient between two emergent wetlands. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-289

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182414709675 | Long: -96.9889468137387 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-289

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	
6 to 16	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-290

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0184766814138 | Long: -96.9884566442735 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland area at a culvert inlet located south of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	100	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** **X** **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-290

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3/2	100					SILTY CLAY	
10 to 16	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-291

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188086158614 | Long: -96.988286512666 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:

The area characterized by this data form is an upland in an agricultural settting located in a field north of US-275 and east of 2085 Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Medicago sativa	70	Y	FACU
	70	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	70	x 4 =	280	
UPL species	0	x 5 =	0	
Column Totals:	70	(A)	280	(B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic vegetation criteria.

SOIL

Sampling Point: S-291

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-292

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182904393533 | Long: -96.9871262383474 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-292

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 1	100					SILTY CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-293

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0188436635688 | Long: -96.9866830627023 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-293

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 15	10YR 3 / 2	100					SILTY CLAY	
15 to 20	10YR 3 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-294

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182606961359 | Long: -96.9853059500352 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-294

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-295

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187129206858 | Long: -96.9843629666667 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation X, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 2085 Road.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-295

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Compact

Depth (inches): 6

Hydric Soil Present? Yes ____ No X

Remarks:
A restrictive layer composed of compact soil is present at 6 inches in depth. The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-296

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0188202740428 | Long: -96.983404427236 | Datum: NAD 83

Soil Map Unit Name: Leshara silt loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-296

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 13	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Compact

Depth (inches): 13

Hydric Soil Present? Yes ____ No X

Remarks:
A restrictive layer composed of compact soil is present at 13 inches in depth. The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-297

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187225737662 | Long: -96.9832404480464 | Datum: NAD 83

Soil Map Unit Name: Leshara silt loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland area located north of US-275 and west of 3rd Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	90	Y	FACW
Bromus inermis	10	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	90	x 2 =	180	
FAC species	0	x 3 =	0	
FACU species	10	x 4 =	40	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	220	(B)

Prevalence Index = B/A= 2.20

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** **X** **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-297

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	80					SILTY CLAY	
0 to 16	10YR 4/2	20					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-298

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182792501927 | Long: -96.9828984815157 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-298

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILTY CLAY	
8 to 16	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-299

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.018102218665 | Long: -96.9826909931144 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland agricultural setting located south of US-275 and west of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic.

SOIL

Sampling Point: S-299

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	
12 to 16	10YR 4/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
16 to 24	10YR 2/1	100					SILTY CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☑ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-300

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Convex

Slope(%): 2 | Lat: 42.0187354931857 | Long: -96.9827266741469 | Datum: NAD 83

Soil Map Unit Name: Leshara silt loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area adjacent to a waterway located north of US-275 and west of 3rd Road. The waterway is characterized by 4 to 5-foot-wide channel, 30-foot-wide top of bank, and 20-foot-tall banks with a 1:1 slope. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	85	Y	FACU
Urtica dioica	15	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	0	x 1 = 0
FACW species	15	x 2 = 30
FAC species	0	x 3 = 0
FACU species	85	x 4 = 340
UPL species	0	x 5 = 0
Column Totals:	100 (A)	370 (B)

Prevalence Index = B/A= 3.70

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-300

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 16	10YR 4/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Active erosion is occurring on the banks due to recent flooding. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-301

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Convex

Slope(%): 2 | Lat: 42.0187075256542 | Long: -96.9823774710193 | Datum: NAD 83

Soil Map Unit Name: Leshara silt loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area adjacent to a waterway located north of US-275 and west of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Rumex altissimus	10	N	FACW
Conium maculatum	5	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A= 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-301

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	
16 to 20	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-302

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0179765822408 | Long: -96.9820285509769 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-302

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 24	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-303

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0183494522676 | Long: -96.9818461258195 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area adjacent to a waterway located south of US-275 and west of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	60	Y	FACU
Urtica dioica	30	Y	FACW
Solidago canadensis	10	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	70	x 4 =	280
UPL species	0	x 5 =	0
Column Totals:	100 (A)		340 (B)

Prevalence Index = B/A= 3.40

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-303

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is elevated approximately 10 feet above the waterway. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-304

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 32 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Convex

Slope(%): 3 | Lat: 42.0183803849125 | Long: -96.9816343534679 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area adjacent to a waterway located south of US-275 and west of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	100	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-304

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 2/2	100					SILTY CLAY	
10 to 20	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-305

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0190122091266 | Long: -96.9814391128395 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the SSTANTON and TANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-305

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 22	10YR 3 / 2	100					SILTY CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-306

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 29 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189132234652 | Long: -96.9811802267395 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic.

SOIL

Sampling Point: S-306

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 13	10YR 3 / 2	100					SILTY CLAY	
13 to 22	10YR 3 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-307

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Convex

Slope(%): 1 | Lat: 42.018411995258 | Long: -96.9808331370145 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	85	Y	FACU
Phalaris arundinacea	10	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	100 (A)		370 (B)

Prevalence Index = B/A= 3.70

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-307

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-308

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0184102102241 | Long: -96.980791734951 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located south of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	80	Y	FACW
Urtica dioica	20	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

___ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-308

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-309

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0187386515601 | Long: -96.9808117442241 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	95	Y	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	100	x 2 =	200	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	200	(B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-309

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-310

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0190262542145 | Long: -96.9808096961374 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Phalaris arundinacea	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-310

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 18	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-311

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0187300162513 | Long: -96.9804070588566 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Taraxacum officinale	10	N	FACU
Urtica dioica	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-311

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	
12 to 20	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-312

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0187319197725 | Long: -96.9802538222677 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Cyperus esculentus	60	Y	FACW
Phalaris arundinacea	30	Y	FACW
Bromus inermis	10	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	90	x 2 =	180	
FAC species	0	x 3 =	0	
FACU species	10	x 4 =	40	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	220	(B)

Prevalence Index = B/A= 2.20

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-312

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
8 to 20	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-313

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0191756968606 | Long: -96.9793316908017 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-313

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 22	10YR 3 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-314

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0190531550699 | Long: -96.9789581150637 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-314

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-315

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0189819495767 | Long: -96.9765909974615 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-315

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	Gravel present
6 to 18	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-316

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0188967650835 | Long: -96.9761051113292 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located north of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-316

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-317

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0184115686365 | Long: -96.9762641789161 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located south of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	50	Y	FACW
Typha angustifolia	30	Y	OBL
Rumex altissimus	15	N	FACW
Cannabis sativa	5	N	UPL
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	30	x 1 =	30
FACW species	65	x 2 =	130
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	100 (A)		185 (B)

Prevalence Index = B/A= 1.85

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)

Cannabis sativa is not listed in the 2016 NWPL and is therefore considered an upland species. The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-317

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
Soils were assumed hydric due to the presence of inundation and obligate vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No	Depth (inches):	6-8	
Water Table Present?	Yes	No X	Depth (inches):		
Saturation Present?	Yes X	No	Depth (inches):	0	

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-318

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 4 | Lat: 42.0183925330391 | Long: -96.9761862515377 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Rumex altissimus	5	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-318

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	
12 to 20	10YR 4/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is aproximately 6 feet above the adjacent wetland. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-319

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0183176120389 | Long: -96.975940952918 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	0	(A)	0	(B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-319

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 5	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
5 to 12	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
12 to 20	10YR 3/1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-320

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 28 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0186842552132 | Long: -96.9750856317104 | Datum: NAD 83

Soil Map Unit Name: Calco silty clay loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	85	Y	FACU
Phalaris arundinacea	10	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	85	x 4 =	340
UPL species	0	x 5 =	0
Column Totals:	100 (A)		370 (B)

Prevalence Index = B/A= 3.70

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-320

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 9	10YR 3 / 2	100					SILTY CLAY	
9 to 20	10YR 3 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-321

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0182406362079 | Long: -96.9745333825653 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-321

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/9/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-322

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.018088827051 | Long: -96.9738309655756 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 3rd Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-322

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	
12 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-323

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0177982945408 | Long: -96.9674982078296 | Datum: NAD 83

Soil Map Unit Name: Moody silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 4th Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-323

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 24	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-324

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0175461194516 | Long: -96.9648120825675 | Datum: NAD 83

Soil Map Unit Name: Moody silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 4th Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-324

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Rock/Gravel

Depth (inches): 8

Hydric Soil Present? Yes ____ No X

Remarks:
A restrictive layer composed of compact soil is present at 8 inches in depth and increases in amount as depth increases. The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-325

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0167294883508 | Long: -96.9646693142997 | Datum: NAD 83

Soil Map Unit Name: Moody silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 4th Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-325

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 14	10YR 3 / 2	100					SILTY CLAY	
14 to 20	10YR 3 / 2	80					SILTY CLAY	
14 to 20	10YR 4 / 2	20					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-326

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0161331950783 | Long: -96.961591957523 | Datum: NAD 83

Soil Map Unit Name: Moody silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes X	No ____		

Remarks:

The area characterized by this data form is an upland area located south of US-275 and west of 4th Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Conium maculatum	30	Y	FACW
Helianthus annuus	30	Y	FACU
Urtica dioica	25	Y	FACW
Rumex altissimus	10	N	FACW
Bromus inermis	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	65	x 2 =	130
FAC species	0	x 3 =	0
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	100 (A)		270 (B)

Prevalence Index = B/A= 2.70

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-326

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10YR 3/2	100					SILTY CLAY	
4 to 20	10YR 4/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-327

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 33 T 24N R 04E

Landform (hillslope, terrace, etc.): Lagoon | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0156406466154 | Long: -96.9616872548236 | Datum: NAD 83

Soil Map Unit Name: Moody silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a sewage lagoon located north of US-275 and west of 4th Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

No vegetation is present within the lagoon.

SOIL

Sampling Point: S-327

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
Soils were assumed hydric due to the presence of permanent inundation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches):	0-48	
Water Table Present?	Yes ____	No X	Depth (inches):	____	
Saturation Present?	Yes ____	No X	Depth (inches):	____	

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-328

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.015435418388 | Long: -96.9612721101165 | Datum: NAD 83

Soil Map Unit Name: Moody silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 4th Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-328

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	Sand and gravel present
6 to 20	10YR 2/2	100					SILTY CLAY	Sand and gravel present

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-329

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0130452970418 | Long: -96.9610646220262 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 4th Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-329

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10YR 3/2	100					SILTY CLAY	
4 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-330

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Pasture | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0133979336021 | Long: -96.9521458463386 | Datum: NAD 83

Soil Map Unit Name: Gravel pit | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and east of 4th Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-330

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:
Due to the topography, consisting of 2 percent slopes, and presence of cows a soil sample was not taken. It is assumed that soils do not display hydric indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches):	_____	
Water Table Present?	Yes _____	No X	Depth (inches):	_____	
Saturation Present?	Yes _____	No X	Depth (inches):	_____	**Wetland Hydrology Present?** Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-331

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0118893271131 | Long: -96.9516273248775 | Datum: NAD 83

Soil Map Unit Name: Moody silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland area located north of US-275 and west of 3rd Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	70	Y	FACU
Asclepias syriaca	20	Y	FACU
Phalaris arundinacea	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-331

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-332

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0089520695401 | Long: -96.9490059889909 | Datum: NAD 83

Soil Map Unit Name: Belfore silty clay loam, terrace, 0 to 2 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of 4th Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-332

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 22	10YR 4 / 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-333

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0077909771772 | Long: -96.9468515318758 | Datum: NAD 83

Soil Map Unit Name: Kennebec silt loam, overwash, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland area adjacent to the waterway located north of US-275 and west of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Phalaris arundinacea	10	N	FACW
Urtica dioica	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A= 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-333

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area is elevated above the channel. The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-334

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0076261998004 | Long: -96.9468283320952 | Datum: NAD 83

Soil Map Unit Name: Kennebec silt loam, overwash, occasionally flooded | NWI Classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The area characterized by this data form is an upland area adjacent to the waterway located north of US-275 and west of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Phalaris arundinacea	10	N	FACW
Urtica dioica	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A= 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-334

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches):

Water Table Present? Yes ____ No X Depth (inches):

Saturation Present? Yes ____ No X Depth (inches):

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-335

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0074655863111 | Long: -96.9469348123969 | Datum: NAD 83

Soil Map Unit Name: Kennebec silt loam, overwash, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area adjacent to the waterway located between US-275 and S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Urtica dioica	20	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A = 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-335

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10R 3/ 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-336

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.007382899575 | Long: -96.9468592649129 | Datum: NAD 83

Soil Map Unit Name: Kennebec silt loam, overwash, occasionally flooded | NWI Classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area elevated above the adjacent waterway located between US-275 and S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Urtica dioica	20	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A = 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-336

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-337

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0070717848995 | Long: -96.9468901969547 | Datum: NAD 83

Soil Map Unit Name: Kennebec silt loam, overwash, occasionally flooded | NWI Classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area elevated above the adjacent waterway located between US-275 and S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Fraxinus pennsylvanica	30	Y	FACW
Ulmus pumila	20	Y	UPL
	50	=Total Cover	
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	60	Y	FACU
Phalaris arundinacea	30	Y	FACW
Urtica dioica	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	60	x 4 =	240
UPL species	20	x 5 =	100
Column Totals:	150 (A)		480 (B)

Prevalence Index = B/A = 3.20

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-337

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-338

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.005989630117 | Long: -96.9468372708498 | Datum: NAD 83

Soil Map Unit Name: Kennebec silt loam, overwash, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland area elevated above the adjacent waterway located between US-275 and S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Acer negundo	5	Y	FAC
Fraxinus pennsylvanica	5	Y	FACW
Salix nigra	5	Y	OBL
	15	=Total Cover	
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Ambrosia artemisiifolia	10	N	FACU
Phalaris arundinacea	5	N	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	15	x 2 =	30
FAC species	5	x 3 =	15
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	115 (A)		410 (B)

Prevalence Index = B/A = 3.57

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- ____ Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** **X** **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-338

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
to	/							
0 to 16	10YR 3/ 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-339

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0059338082419 | Long: -96.9468866284278 | Datum: NAD 83

Soil Map Unit Name: Kennebec silt loam, overwash, occasionally flooded | NWI Classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes ____	No X		

Remarks:

The area characterized by this data form is an upland area elevated above the adjacent waterway located between US-275 and S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Ulmus pumila	30	Y	UPL
Fraxinus pennsylvanica	10	Y	FACW
Salix nigra	10	Y	OBL
	50	=Total Cover	
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	50	Y	FACU
Phalaris arundinacea	30	Y	FACW
Galium aparine	5	N	FACU
Pastinaca sativa	5	N	UPL
Urtica dioica	5	N	FACW
	95	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	10	x 1 =	10
FACW species	45	x 2 =	90
FAC species	0	x 3 =	0
FACU species	55	x 4 =	220
UPL species	35	x 5 =	175
Column Totals:	145 (A)		495 (B)

Prevalence Index = B/A = 3.41

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)

Pastinaca sativa is not listed in the 2016 NWPL and is therefore considered an upland species. The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-339

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-340

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0055281097154 | Long: -96.9470870973313 | Datum: NAD 83

Soil Map Unit Name: Kennebec silt loam, overwash, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? Yes ____ No X

Remarks:

The area characterized by this data form is an upland area located between US-275 and S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Fraxinus pennsylvanica	5	Y	FACW
Salix nigra	5	Y	OBL
	10	=Total Cover	
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	65	Y	FACW
Viola sororia	15	N	FAC
Urtica dioica	10	N	FACW
Galium aparine	5	N	FACU
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	5	x 1 =	5
FACW species	85	x 2 =	170
FAC species	15	x 3 =	45
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	110 (A)		240 (B)

Prevalence Index = B/A= 2.18

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-340

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-341

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.004820219893 | Long: -96.9467462396426 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland area located between US-275 and S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Acer negundo	10	Y	FAC
Acer saccharinum	10	Y	FACW
Salix nigra	10	Y	OBL
	30	=Total Cover	
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Urtica dioica	20	Y	FACW
Phalaris arundinacea	15	Y	FACW
Ambrosia trifida	10	N	FAC
Viola sororia	10	N	FAC
	55	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	10	x 1 =	10
FACW species	45	x 2 =	90
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	85 (A)		190 (B)

Prevalence Index = B/A= 2.24

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** **X** **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-341

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/ 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	____	No	X	Depth (inches):
Water Table Present?	Yes	____	No	X	Depth (inches):
Saturation Present?	Yes	____	No	X	Depth (inches):

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-342

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0045877412433 | Long: -96.9473520657612 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located between US-275 and S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-342

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 1	100					SILTY CLAY	
8 to 16	10YR 3 / 1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-343

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0048204523456 | Long: -96.9476204690233 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located between US-275 and S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-343

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-344

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0044870954764 | Long: -96.946721255625 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?**	**Yes ____ No X**
Hydric Soil Present?	Yes ____	No X		
Wetland Hydrology Present?	Yes X	No ____		

Remarks:

The area characterized by this data form is an upland area located between US-275 and S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Fraxinus pennsylvanica	10	Y	FACW
	10	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	55	Y	FACU
Phalaris arundinacea	40	Y	FACW
Urtica dioica	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	55	x 2 =	110
FAC species	0	x 3 =	0
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	110 (A)		330 (B)

Prevalence Index = B/A= 3.00

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- X Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-344

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/ 2	98	7.5YR 4/6	2	c	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profilefails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches):

Water Table Present? Yes ____ No X Depth (inches):

Saturation Present? Yes ____ No X Depth (inches):

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-345

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Convex

Slope(%): 2 | Lat: 42.0043841836153 | Long: -96.9466629587846 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland area elevated above the adjacent waterway located between US-275 and S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Urtica dioica	10	N	FACW
Vitis rupestris	10	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A = 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-345

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
to	/							
0 to 16	10YR 3/ 2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-346

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0042485544885 | Long: -96.9471959582911 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent and forested wetlands located south of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Cyperus esculentus	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		380 (B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-346

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	
12 to 16	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-347

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0038705674767 | Long: -96.9470061466037 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:

The area characterized by this data form is an forested wetland area located south of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Acer saccharinum	20	Y	FACW
Fraxinus pennsylvanica	20	Y	FACW
	40	=Total Cover	
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	70	Y	FACW
Urtica dioica	30	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	140	x 2 =	280
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	140 (A)		280 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-347

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 2	98	7.5YR 4/6	2	C	M	SILTY CLAY	
10 to 16	10YR 4 / 2	90	7.5YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-348

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0042432004589 | Long: -96.9468217878942 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located south of S Road.According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum (Plot size: 30 Ft)			
Salix nigra	5	Y	OBL
	5	=Total Cover	
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	80	Y	FACW
Urtica dioica	20	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	5	x 1 =	5
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	105 (A)		205 (B)

Prevalence Index = B/A= 1.95

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-348

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-349

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Channel | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0042110778794 | Long: -96.9467063845056 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: PEM1Cx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located south of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	85	Y	FACW
Sicyos angulatus	10	N	FACW
Cannabis sativa	5	N	UPL
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	95	x 2 =	190
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	100 (A)		215 (B)

Prevalence Index = B/A= 2.15

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)

Cannabis sativa is not listed in the 2016 NWPL and is therefore considered an upland species. The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-349

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-350

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0040427213713 | Long: -96.946385702381 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent and forested wetlands located south of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum (Plot size: 30 Ft)			
Cornus drummondii	5	Y	FAC
	5	=Total Cover	
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	95	Y	FACU
Cyperus esculentus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	5	x 3 =	15
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	105 (A)		405 (B)

Prevalence Index = B/A= 3.86

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-350

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SILTY CLAY	
6 to 16	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-351

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 03 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0038436370988 | Long: -96.9448629065567 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located south of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	90	Y	FACW
Bromus inermis	10	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	100 (A)		220 (B)

Prevalence Index = B/A= 2.20

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-351

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 16	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-352

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 03 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0036854023742 | Long: -96.9447873583749 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	0	x 5 = 0
Column Totals:	0 (A)	0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-352

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Sand/gravel

Depth (inches): 8

Hydric Soil Present? Yes ____ No X

Remarks:
A restrictive layer composed of compact soil is present at 8 inches in depth. The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-353

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 03 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0035862978244 | Long: -96.9443058749952 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-353

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Sand/gravel

Depth (inches): 8

Hydric Soil Present? Yes ____ No X

Remarks:
A restrictive layer composed of compact soil is present at 8 inches in depth. The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-354

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 03 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0032404199608 | Long: -96.9429863212406 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-354

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Sand/gravel

Depth (inches): 8

Hydric Soil Present? Yes ____ No X

Remarks:
A restrictive layer composed of compact soil is present at 8 inches in depth. The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-355

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 34 T 24N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0039420672367 | Long: -96.9424299237698 | Datum: NAD 83

Soil Map Unit Name: Belfore silty clay loam, terrace, 0 to 2 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The area characterized by this data form is an upland area located north of US-275 and west of N-51.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Elymus repens	80	Y	FACU
Bromus inermis	20	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-355

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-356

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 03 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0025626735404 | Long: -96.9421987588691 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and east of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	0	(A)	0	(B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-356

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 3	10YR 3/2	100					SILTY CLAY	
3 to 16	10YR 3/1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-357

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 03 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0025798061938 | Long: -96.9421752025288 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent fringe wetland area adjacent to a wetland in an agricultural setting located south of US-275 and east of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	80	Y	FACW
Taraxacum officinale	10	N	FACU
Urtica dioica	10	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	90	x 2 =	180	
FAC species	0	x 3 =	0	
FACU species	10	x 4 =	40	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	220	(B)

Prevalence Index = B/A= 2.20

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-357

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 3	10YR 3/2	100					SILTY CLAY	
3 to 16	10YR 3/1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-358

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 03 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Convex

Slope(%): 1 | Lat: 42.0025655287578 | Long: -96.9421045318904 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an elevated upland outpoint to the adjacent emergent wetland and wetland in an agricultural setting located south of US-275 and east of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	90	Y	FACU
Taraxacum officinale	10	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	100 (A)		400 (B)

Prevalence Index = B/A= 4.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-358

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-359

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0025469694504 | Long: -96.9419232169194 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and east of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-359

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3 / 2	100					SILTY CLAY	Gravel mixed in
8 to 16	10YR 3 / 2	80					SILTY CLAY	Gravel mixed in
8 to 16	10YR 4 / 2	15	7.5YR 4/6	5	C	M	SILTY CLAY	Gravel mixed in

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-360

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0025148468434 | Long: -96.9414970559223 | Datum: NAD 83

Soil Map Unit Name: Cass fine sandy loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-360

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/1	100					SILTY CLAY	Gravel mixed

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Gravel

Depth (inches): 16

Hydric Soil Present? Yes ____ No X

Remarks:
A restrictive layer composed of gravel is present at 16 inches in depth. The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-361

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0023019452177 | Long: -96.9399657555715 | Datum: NAD 83

Soil Map Unit Name: Belfore silty clay loam, terrace, 0 to 2 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and east of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	80	Y	FACU
Phalaris arundinacea	10	N	FACW
Taraxacum officinale	10	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	10	x 2 =	20	
FAC species	0	x 3 =	0	
FACU species	90	x 4 =	360	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	380	(B)

Prevalence Index = B/A= 3.80

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-361

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3/2	100					SILTY CLAY	
10 to 16	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-362

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0020449637586 | Long: -96.9395564885018 | Datum: NAD 83

Soil Map Unit Name: Belfore silty clay loam, terrace, 0 to 2 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:

The area characterized by this data form is an emergent wetland area located north of US-275 and east of S Road. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	100	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-362

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3/2	100					SILTY CLAY	
10 to 20	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-363

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0013676497811 | Long: -96.9394247948738 | Datum: NAD 83

Soil Map Unit Name: Cass fine sandy loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of N-51. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-363

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Gravel

Depth (inches): 12

Hydric Soil Present? Yes ____ No X

Remarks:
A restrictive layer composed of gravel is present at 12 inches in depth. The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-364

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0010783071948 | Long: -96.9388832293138 | Datum: NAD 83

Soil Map Unit Name: Cass fine sandy loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland in an agricultural setting adjcent to a culvert inlet located south of US-275 and west of N-51. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-364

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 4	10YR 4/2	100					SILTY CLAY	
4 to 16	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 8/15/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-365

Investigators: Carmen Modrcin, Colton Reikofski | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0013537183268 | Long: -96.9383389246300 | Datum: NAD 83

Soil Map Unit Name: Leshara silt loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No	X
Hydric Soil Present?	Yes	No	X
Wetland Hydrology Present?	Yes	No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:
The area characterized by this data form is an upland area located north of US-275 and east of 4 1/2 Road.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	40	Y	FACW
Bromus inermis	30	Y	FACU
Helianthus annuus	30	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	40	x 2 =	80	
FAC species	0	x 3 =	0	
FACU species	60	x 4 =	240	
UPL species	0	x 5 =	0	
Column Totals:	100	(A)	320	(B)

Prevalence Index = B/A= 3.20

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-365

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Compact

Depth (inches): 12

Hydric Soil Present? Yes ____ No X

Remarks:
A restrictive layer composed of compact soil is present at 12 inches in depth. The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-366

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Lagoon | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.001460640102 | Long: -96.9380286757474 | Datum: NAD 83

Soil Map Unit Name: Leshara silt loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No ____**

Remarks:

The area characterized by this data form is a sewage lagoon area located north of US-275 and west of N-51. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	0	(A)	0	(B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

There is no vegetation in the lagoon.

SOIL

Sampling Point: S-366

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
Soils were assumed hydric due to the presence of inundation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches):	0-6	
Water Table Present?	Yes ____	No X	Depth (inches):	____	
Saturation Present?	Yes ____	No X	Depth (inches):	____	**Wetland Hydrology Present?** Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-367

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 2 | Lat: 42.0001923874502 | Long: -96.9378585447777 | Datum: NAD 83

Soil Map Unit Name: Leshara silt loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of N-51. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-367

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 4 / 2	100					SANDY CLAY	
10 to 20	10YR 3 / 2	100					SANDY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-368

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0000496193527 | Long: -96.9372315563613 | Datum: NAD 83

Soil Map Unit Name: Leshara silt loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of N-51. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column Totals:	0	(A)	0	(B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-368

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/2	100					SANDY CLAY	
6 to 12	10YR 3/1	98	7.5YR 4/6	2	C	M	SANDY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Gravel

Depth (inches): 12

Hydric Soil Present? Yes X No

Remarks:
A restrictive layer composed of gravel is present at 12 inches in depth. The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):

Water Table Present? Yes No X Depth (inches):

Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-369

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0007153255343 | Long: -96.9365768989266 | Datum: NAD 83

Soil Map Unit Name: Belfore silty clay loam, terrace, 0 to 2 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located north of US-275 and west of N-51. According to NRCS Agricultural Applied Climate Information System, the STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	50	Y	FACU
Phalaris arundinacea	45	Y	FACW
Rumex altissimus	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	100 (A)		300 (B)

Prevalence Index = B/A= 3.00

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** **X** **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-369

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3/2	100					SILTY CLAY	
10 to 20	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-370

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0002004895933 | Long: -96.9365052772723 | Datum: NAD 83

Soil Map Unit Name: Leshara silt loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area located north of US-275 and east of N-51. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	55	Y	FACU
Phalaris arundinacea	45	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	0	x 3 =	0
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	100 (A)		310 (B)

Prevalence Index = B/A= 3.10

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-370

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 5	10YR 3/2	100					SILTY CLAY	
5 to 16	10YR 3/2	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-371

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 41.9998640213097 | Long: -96.9370483377324 | Datum: NAD 83

Soil Map Unit Name: Leshara silt loam, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of N-51. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-371

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/1	100					SILTY CLAY	Rock and gravel mixed in

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-372

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 41.9985168627886 | Long: -96.9340040083451 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes		No	X
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland area located north of US-275 and east of N-51. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	50	Y	FACU
Phalaris arundinacea	35	Y	FACW
Polygonum aviculare	15	Y	FAC
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	35	x 2 =	70
FAC species	35	x 3 =	105
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	120 (A)		375 (B)

Prevalence Index = B/A= 3.13

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- X Dominance Test > 50%
- ____ Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** **X** **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-372

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-373

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 41.998283675048 | Long: -96.9342205384487 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and east of N-51. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-373

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-374

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 41.9980314522532 | Long: -96.9346250468566 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of N-51. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	0	x 5 = 0
Column Totals:	0 (A)	0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-374

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Gravel

Depth (inches): 10

Hydric Soil Present? Yes ____ No X

Remarks:
A restrictive layer composed of gravel is present at 10 inches in depth. The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-375

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 41.9954606828557 | Long: -96.9297382288876 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and east of N-51. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-375

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 3/1	100					SILTY CLAY	Sand and gravel mixed in

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☑ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-376

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 41.9955215969463 | Long: -96.9289530069133 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located north of US-275 and west of 18th Street. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-376

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-377

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 41.9949057923026 | Long: -96.9297591683113 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 18th Street. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-377

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3/2	100					SANDY CLAY	
10 to 20	10YR 3/1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-378

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 41.9947420852538 | Long: -96.9299066951348 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is a wetland in an agricultural setting located south of US-275 and west of 18th Street. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site meets hydric soil and wetland hydrology criteria, but lacks hydrophytic vegetation coverage.

SOIL

Sampling Point: S-378

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 20	10YR 4 / 2	98	7.5YR 4/6	2	C	M	SANDY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	_____	No	X	Depth (inches): _____
Water Table Present?	Yes	_____	No	X	Depth (inches): _____
Saturation Present?	Yes	_____	No	X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-379

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 41.9935178172805 | Long: -96.926425246422 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No	
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes	X	No	

Is the Sampled Area within a Wetland? **Yes X No**

Remarks:

The area characterized by this data form is an emergent wetland area located south of US-275 and west of 18th Street. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Phalaris arundinacea	80	Y	FACW
Bromus inermis	15	N	FACU
Taraxacum officinale	5	N	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	80	x 2 =	160
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	100 (A)		240 (B)

Prevalence Index = B/A= 2.40

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-379

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 3	10YR 3/2	100					SILTY CLAY	
3 to 10	10YR 3/2	95	7.5YR 4/6	5	C	M	SILTY CLAY	
10 to 16	10YR 3/1	95	7.5YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-380

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 41.9933422126573 | Long: -96.9261011634153 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	X
Hydric Soil Present?	Yes	X	No	
Wetland Hydrology Present?	Yes		No	X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland outpoint to the adjacent emergent wetland located south of US-275 and west of 18th Street. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Poa pratensis	50	Y	FAC
Taraxacum officinale	30	Y	FACU
Bromus inermis	15	N	FACU
Phalaris arundinacea	5	N	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	50	x 3 =	150
FACU species	45	x 4 =	180
UPL species	0	x 5 =	0
Column Totals:	100 (A)		340 (B)

Prevalence Index = B/A= 3.40

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-380

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 8	10YR 3/2	100					SILTY CLAY	
8 to 14	10YR 3/2	80					SILTY CLAY	
8 to 14	10YR 4/2	15	7.5YR 4/6	5	C	M	SILTY CLAY	
14 to 20	10YR 3/1	98	7.5YR 4/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-381

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 41.9929647353808 | Long: -96.9267079263608 | Datum: NAD 83

Soil Map Unit Name: Coleridge silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland in an agricultural setting located south of US-275 and west of 18th Street. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consisted primarily of bare ground with minimal plant coverage. However, the area is a managed plant community as described by the Midwest Regional Supplement and is considered problematic, as the site fails to meet hydric soil and wetland hydrology criteria it is assumed that the vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-381

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 24	10YR 3 / 1	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches):

Water Table Present? Yes ____ No X Depth (inches):

Saturation Present? Yes ____ No X Depth (inches):

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 5/10/2019

Applicant/Owner: NDOT | State: NE | Sampling Point: S-382

Investigators: Emily Roll, Carmen Modrcin | Section, Township, Range: S 02 T 23N R 04E

Landform (hillslope, terrace, etc.): Ditch | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 41.9914675516252 | Long: -96.9226927539783 | Datum: NAD 83

Soil Map Unit Name: Moody silty clay loam, 2 to 6 percent slopes | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

The area characterized by this data form is an upland area adjacent to a waterway located south of US-275 and west of 18th Street. The waterway is characterized by a 3-foot-wide channel, 7 to 10-foot-wide top of bank, and 1 to 2-foot-tall banks with a 1:1 slope. According to NRCS Agricultural Applied Climate Information System, the STANTON and STANTON 7NE, NE WETs Station received 1.17 inches of precipitation and the WEST POINT, NE WETs Station received 0.96 inch of precipitation during May 7th through 9th.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 6 Ft)			
Bromus inermis	40	Y	FACU
Poa pratensis	40	Y	FAC
Taraxacum officinale	20	Y	FACU
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	100 (A)		360 (B)

Prevalence Index = B/A= 3.60

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meet hydrophytic criteria.

SOIL

Sampling Point: S-382

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 3/2	100					SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

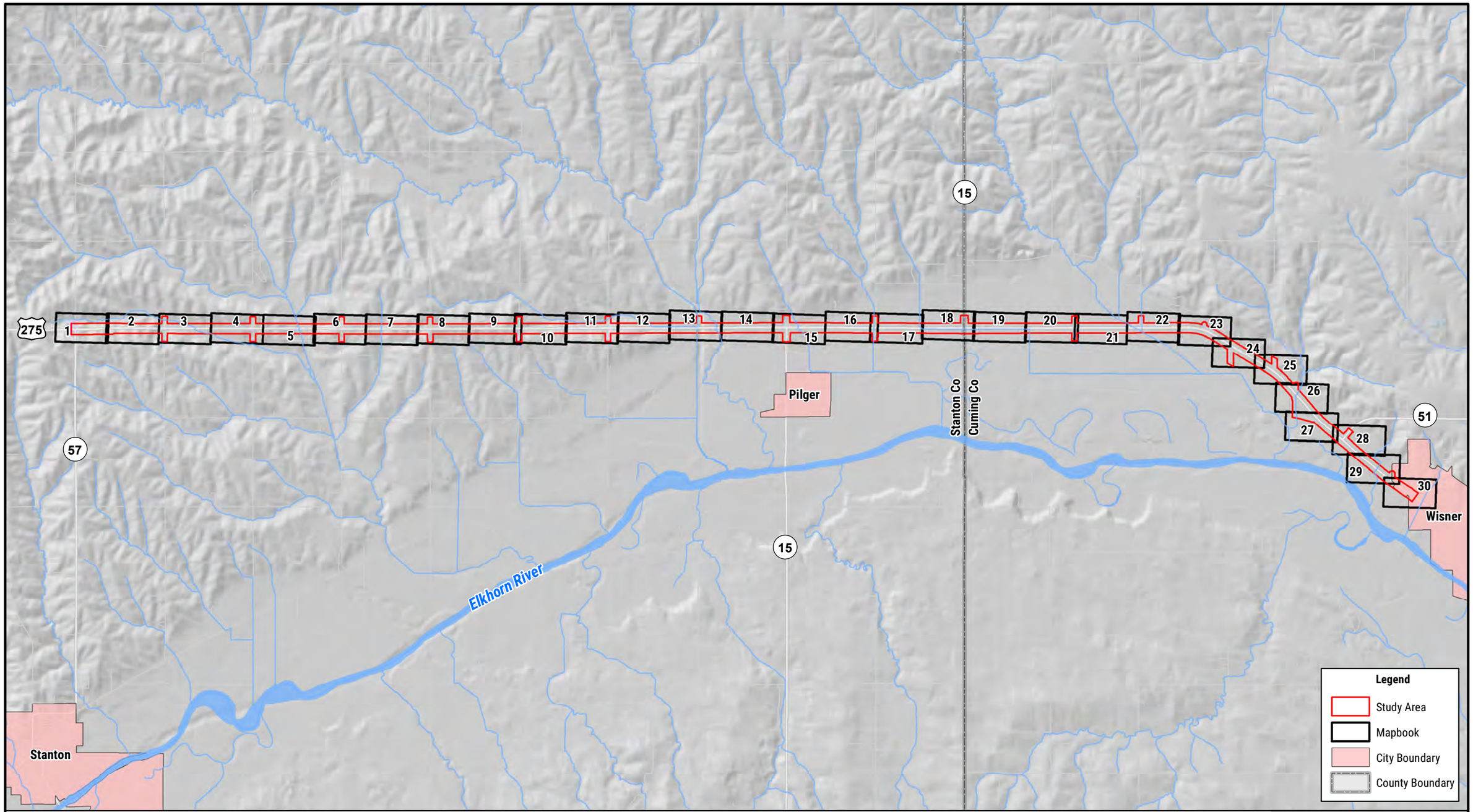
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

Appendix C

Wetlands in Agricultural Settings Desktop Data

NAIP Aerial Imagery



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 0.5 1
MILES

N

KEY MAP
NORFOLK - WISNER
PROJ. NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-1

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\FIG4_AGWETLANDS_KEYMAP.MXD - USER: CMODRCIN - DATE: 6/12/2019

566 Ave

Hwy 275

86.00

US Hwy 275

841st Rd

State Hwy 57 Oak St

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

566 Ave

86.00

US Hwy 275

841st Rd

Hwy 275

State Hwy 57 Oak St

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

566 Ave

Hwy 275

86.00

US Hwy 275

841st Rd

State Hwy 57 Oak St

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

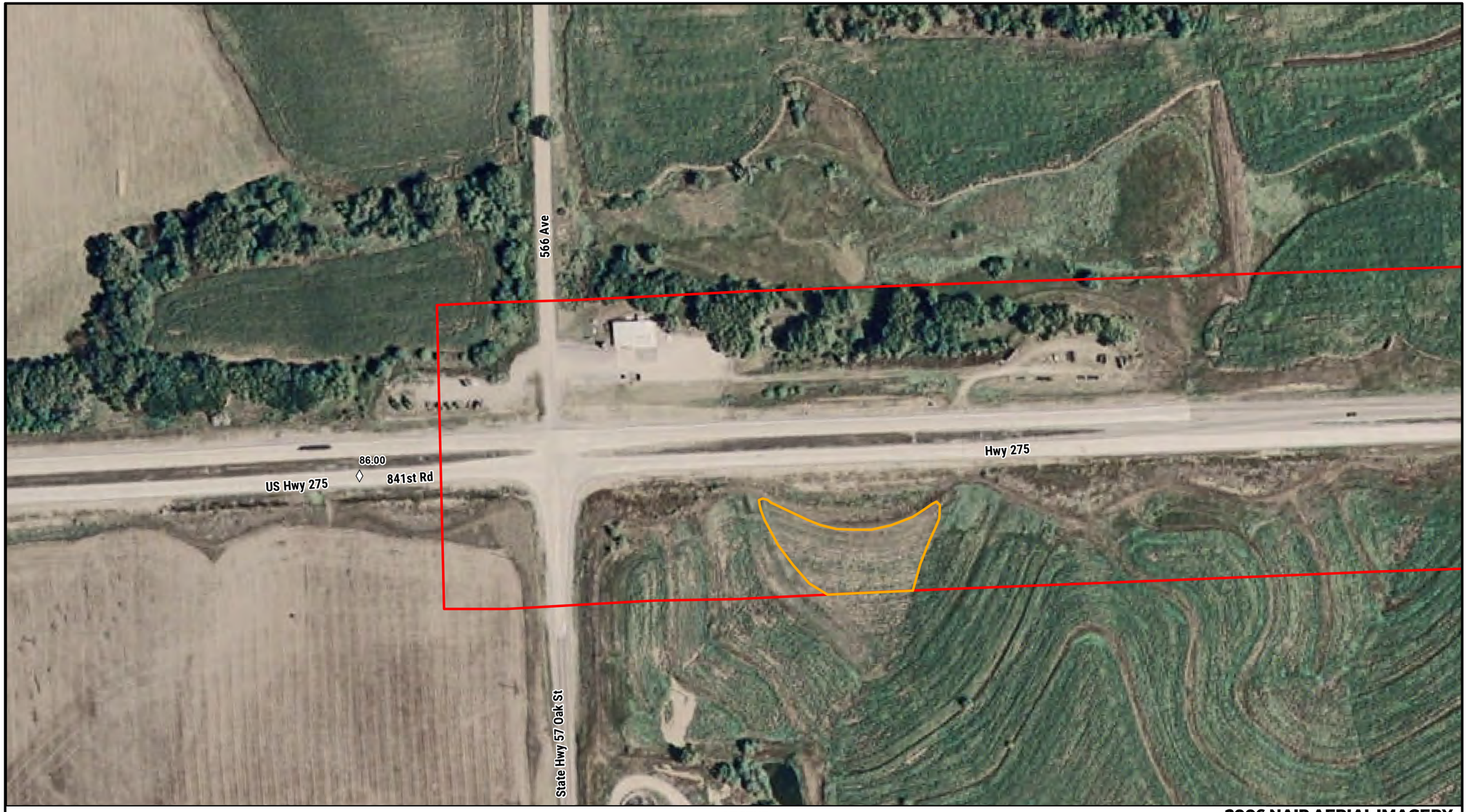
Mile Marker
Wet Signature
County Boundary
Study Area
Village Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

566 Ave

86.00

US Hwy 275

841st Rd

Hwy 275

State Hwy 57 Oak St

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

566 Ave

Hwy 275

86:00

US Hwy 275

841st Rd

State Hwy 57 Oak St

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

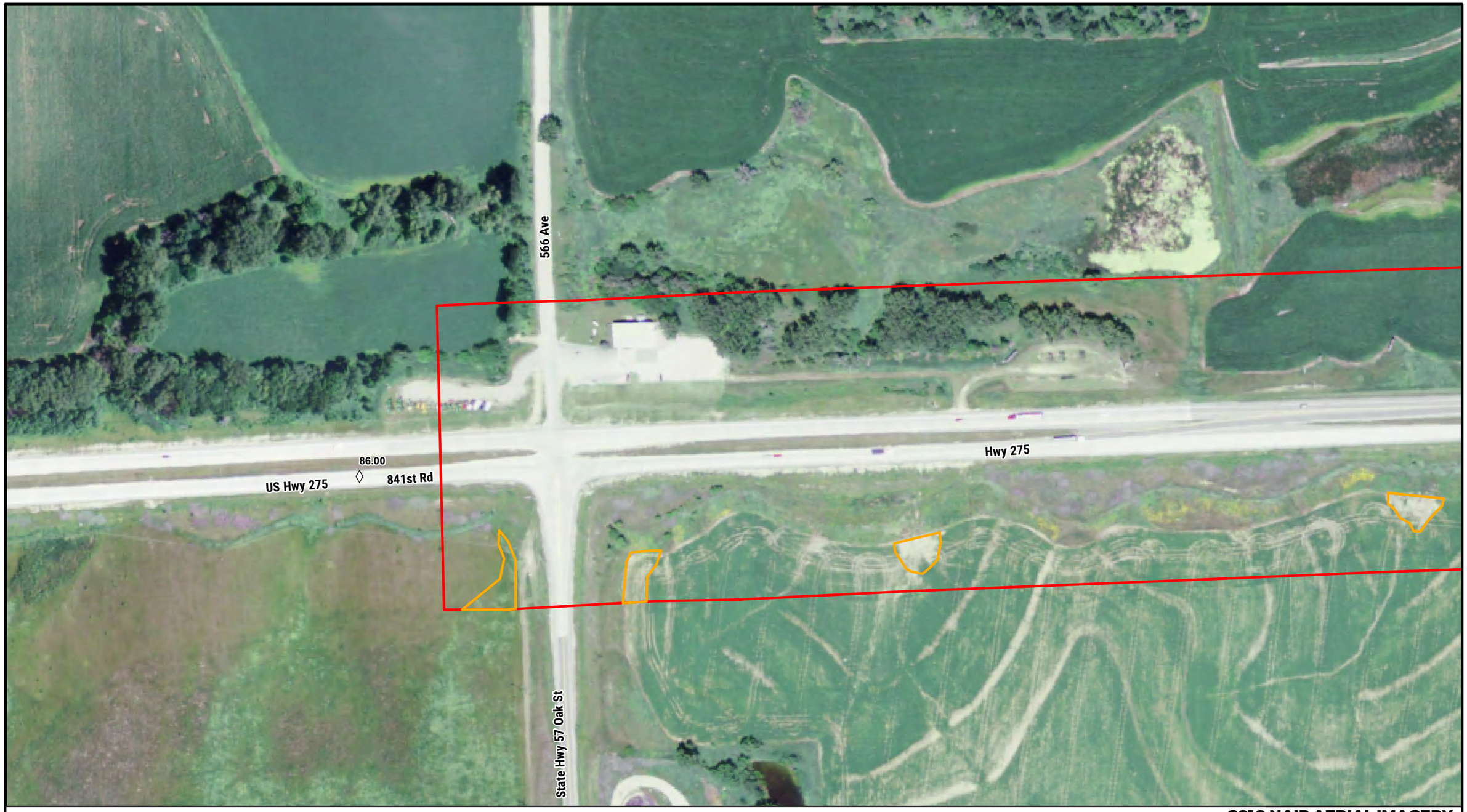
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

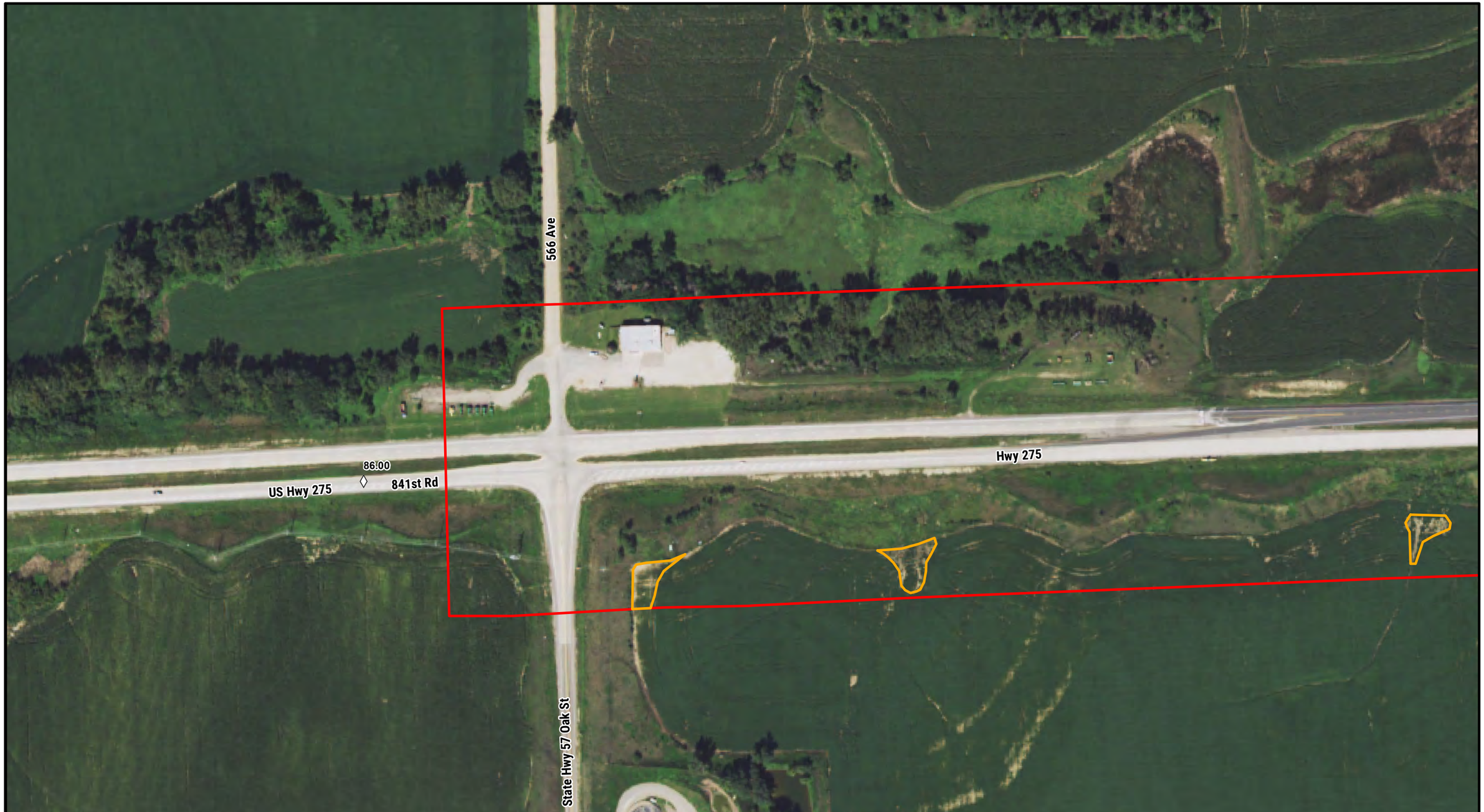
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

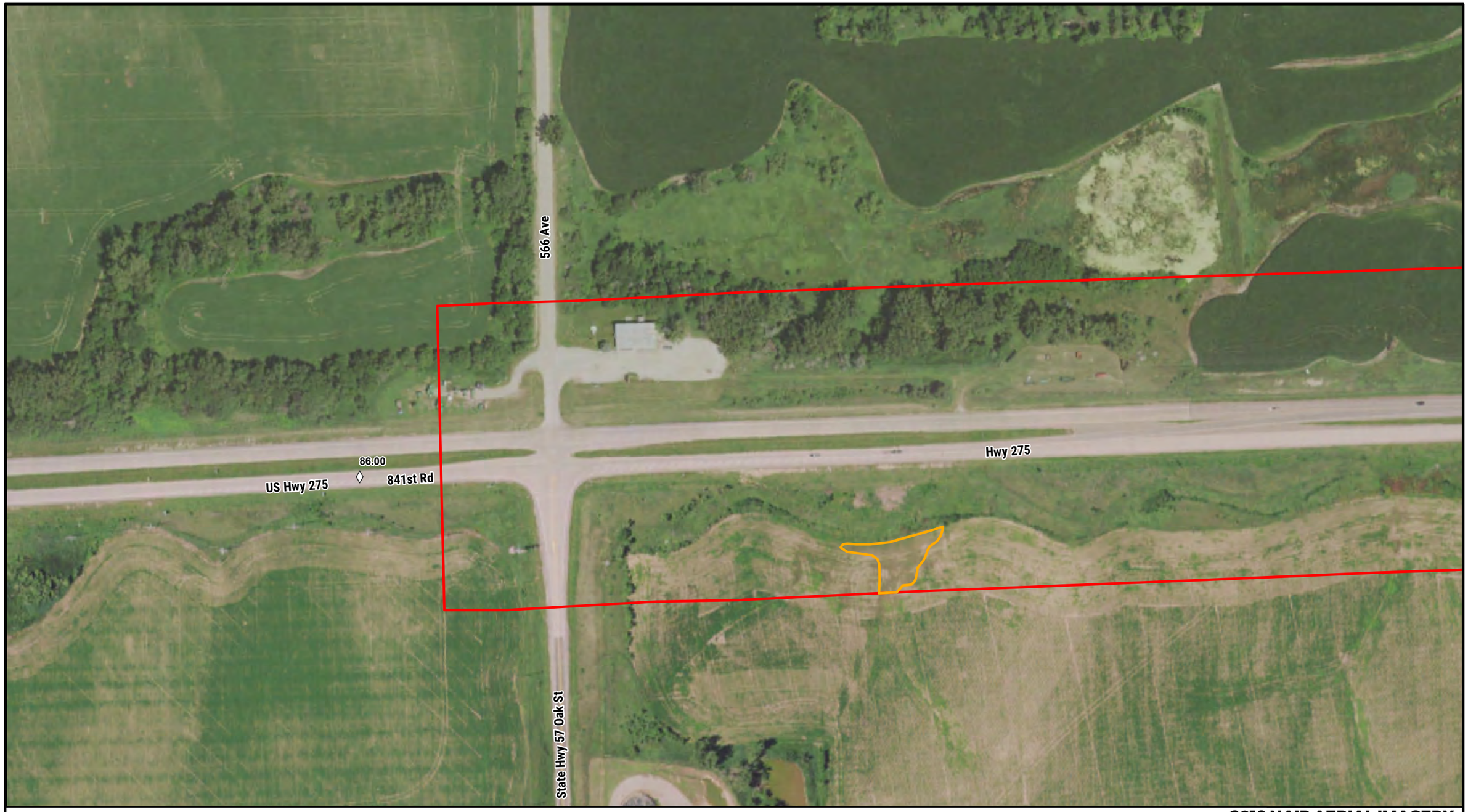
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

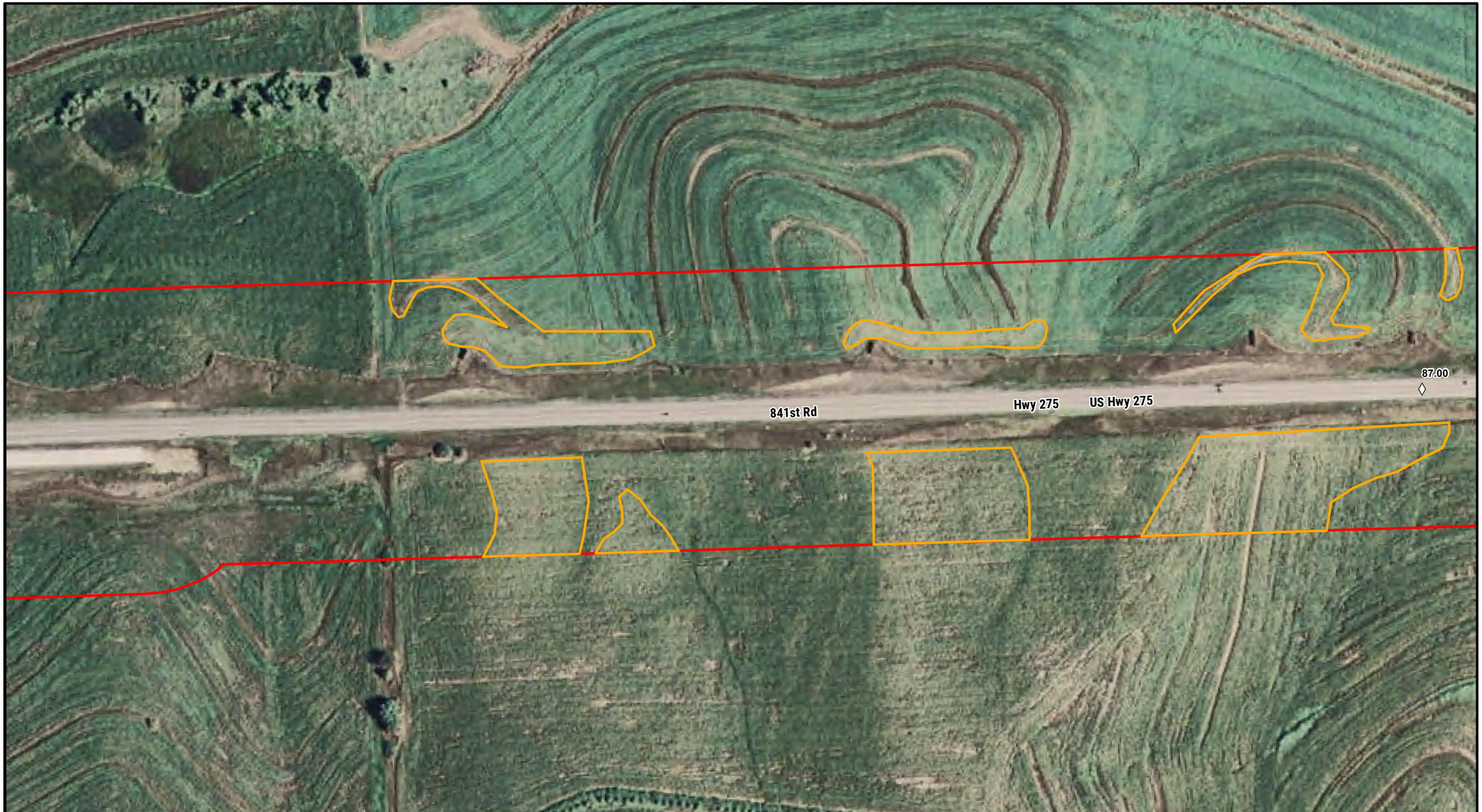
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

Mile Marker
Wet Signature
County Boundary
Study Area
Village Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

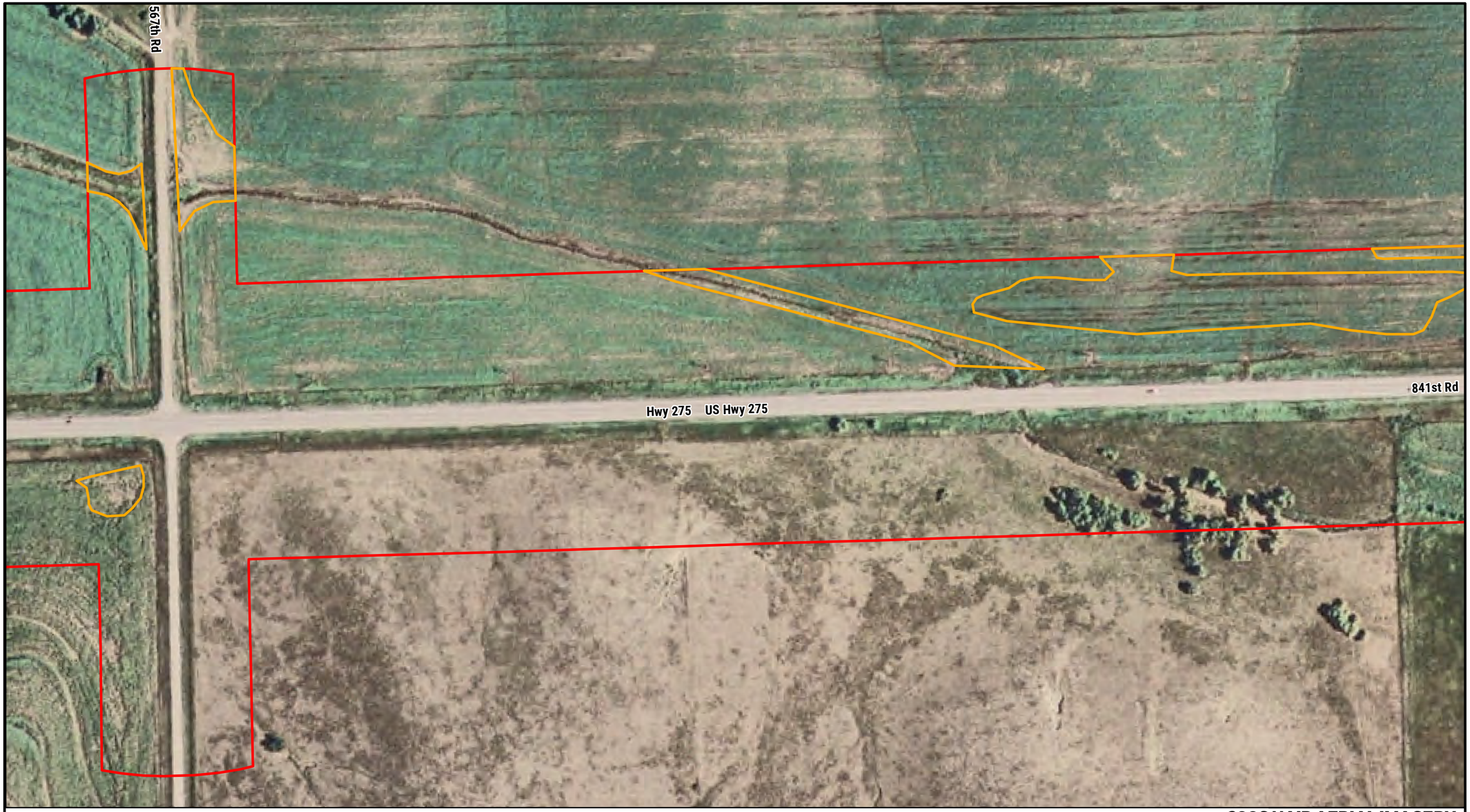
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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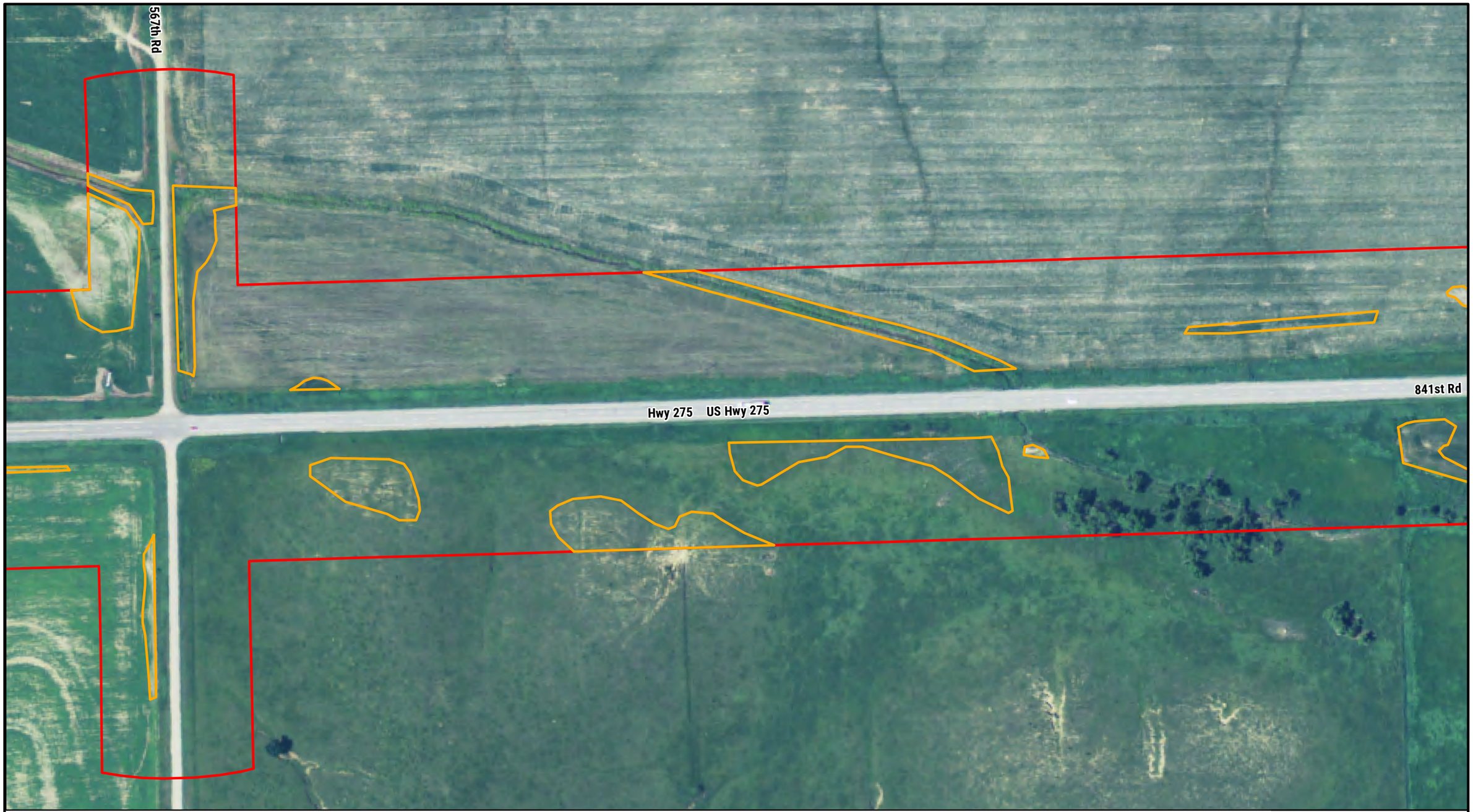
FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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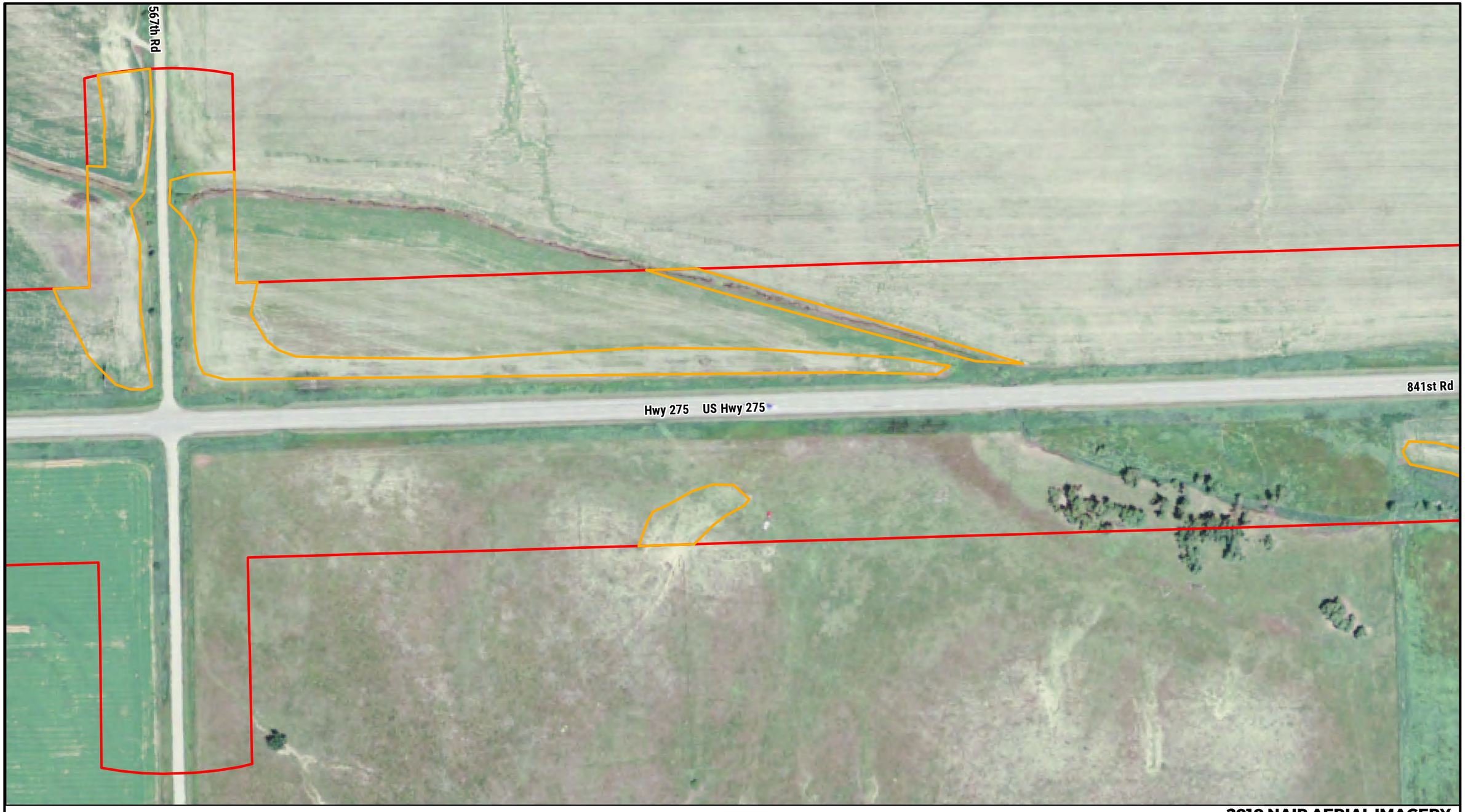
FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
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- Village Boundary
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2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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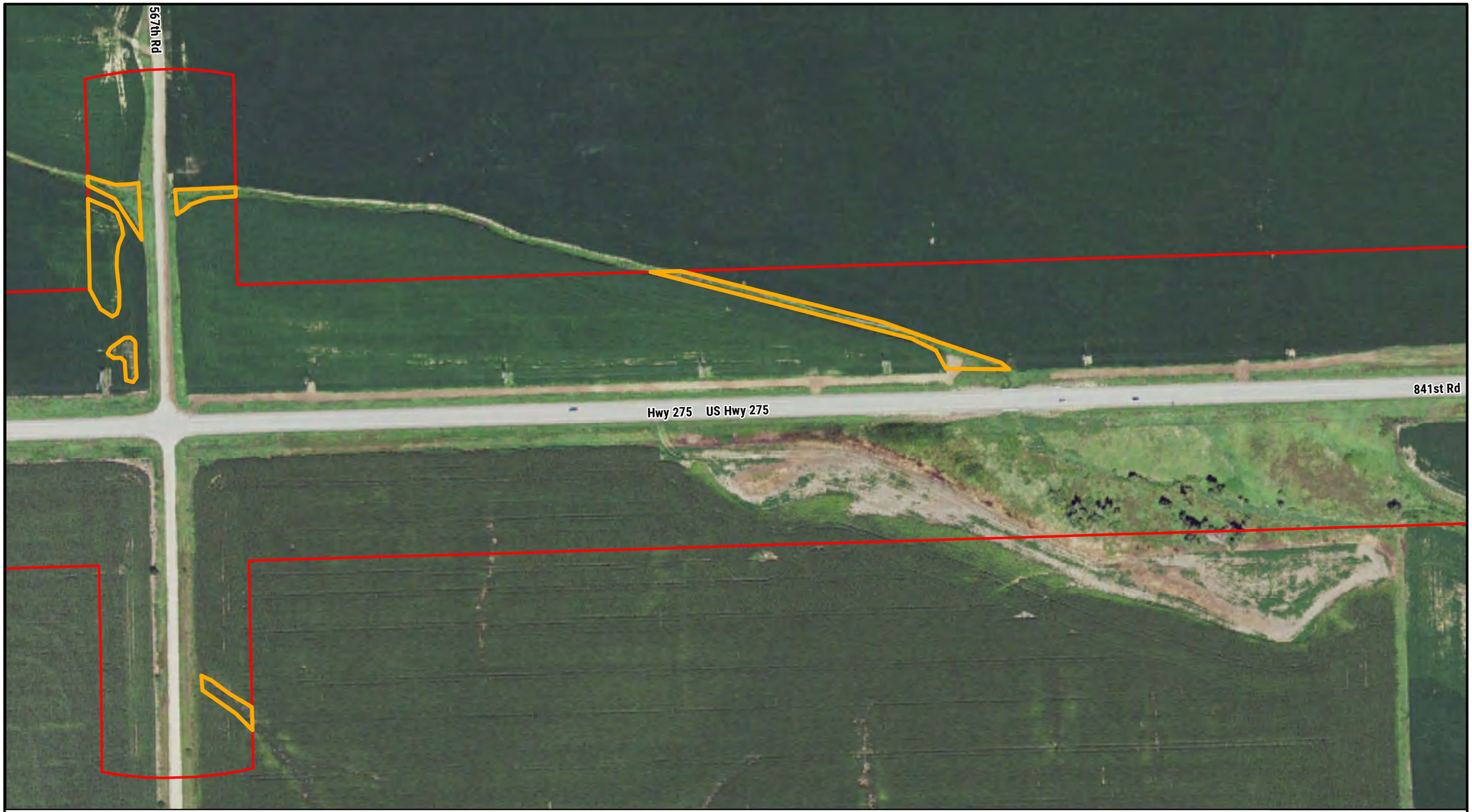
FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

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- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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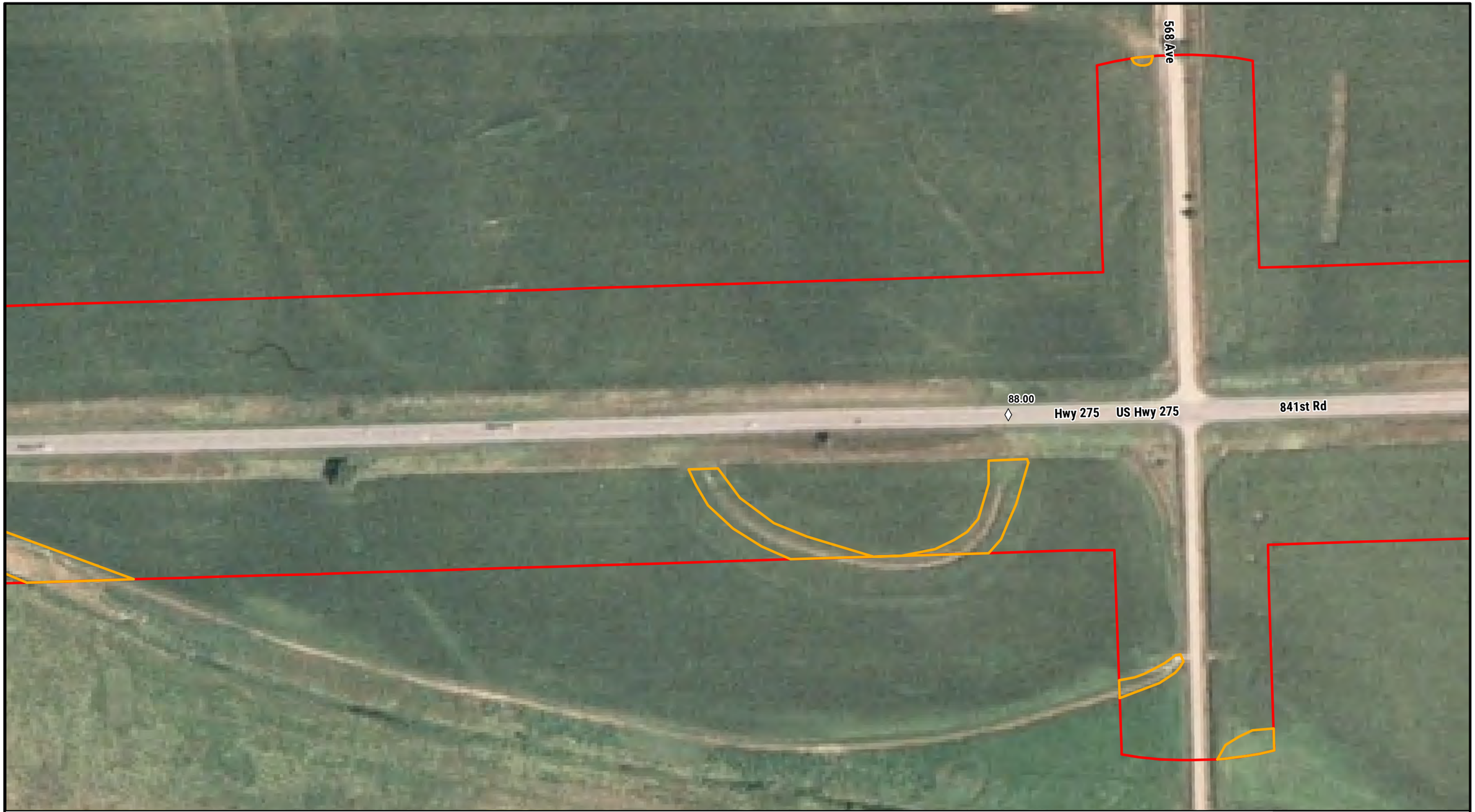
2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

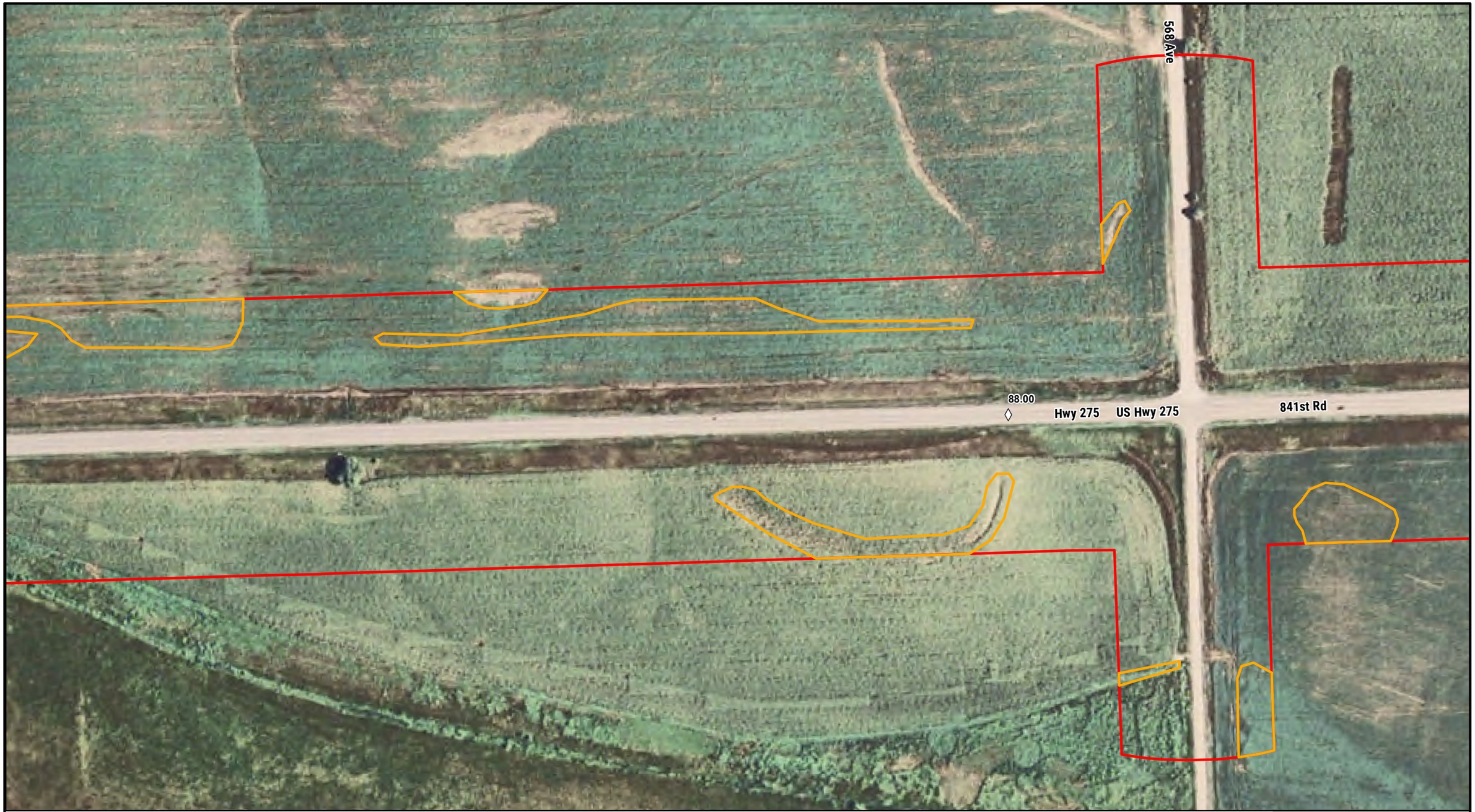
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

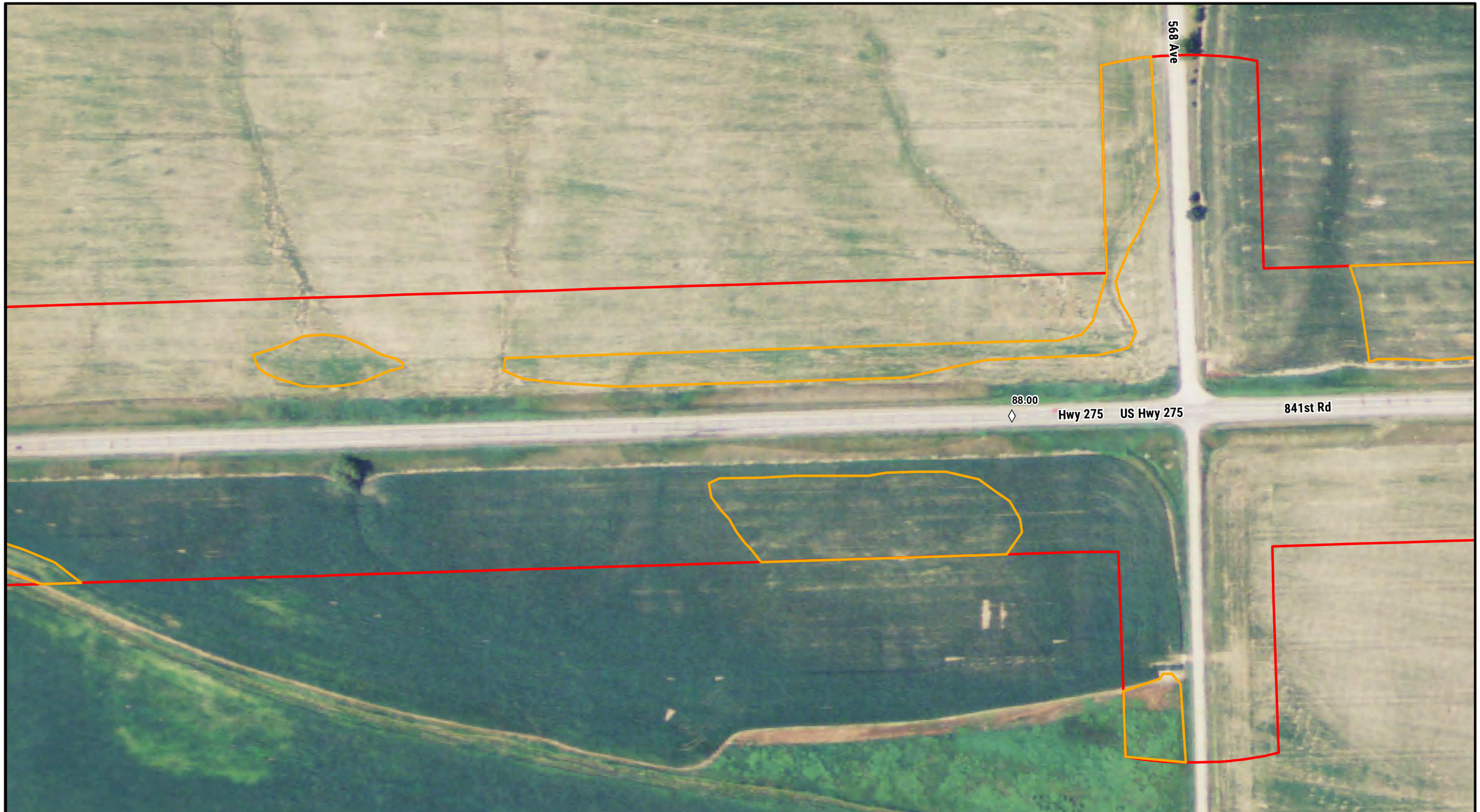
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

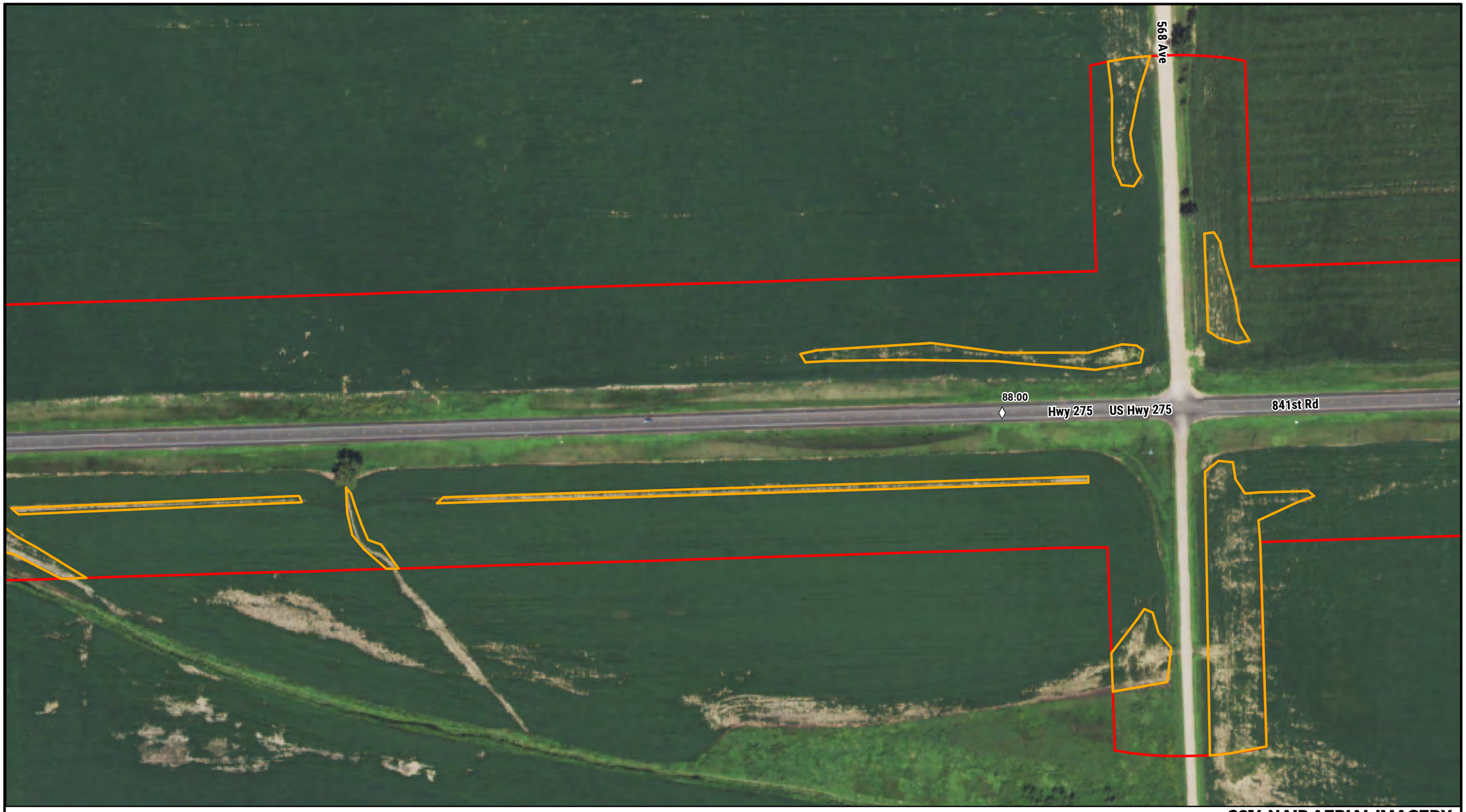
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
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- Village Boundary
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2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

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- Village Boundary
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2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

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- Village Boundary
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2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

Mile Marker
Study Area
Wet Signature
Village Boundary
County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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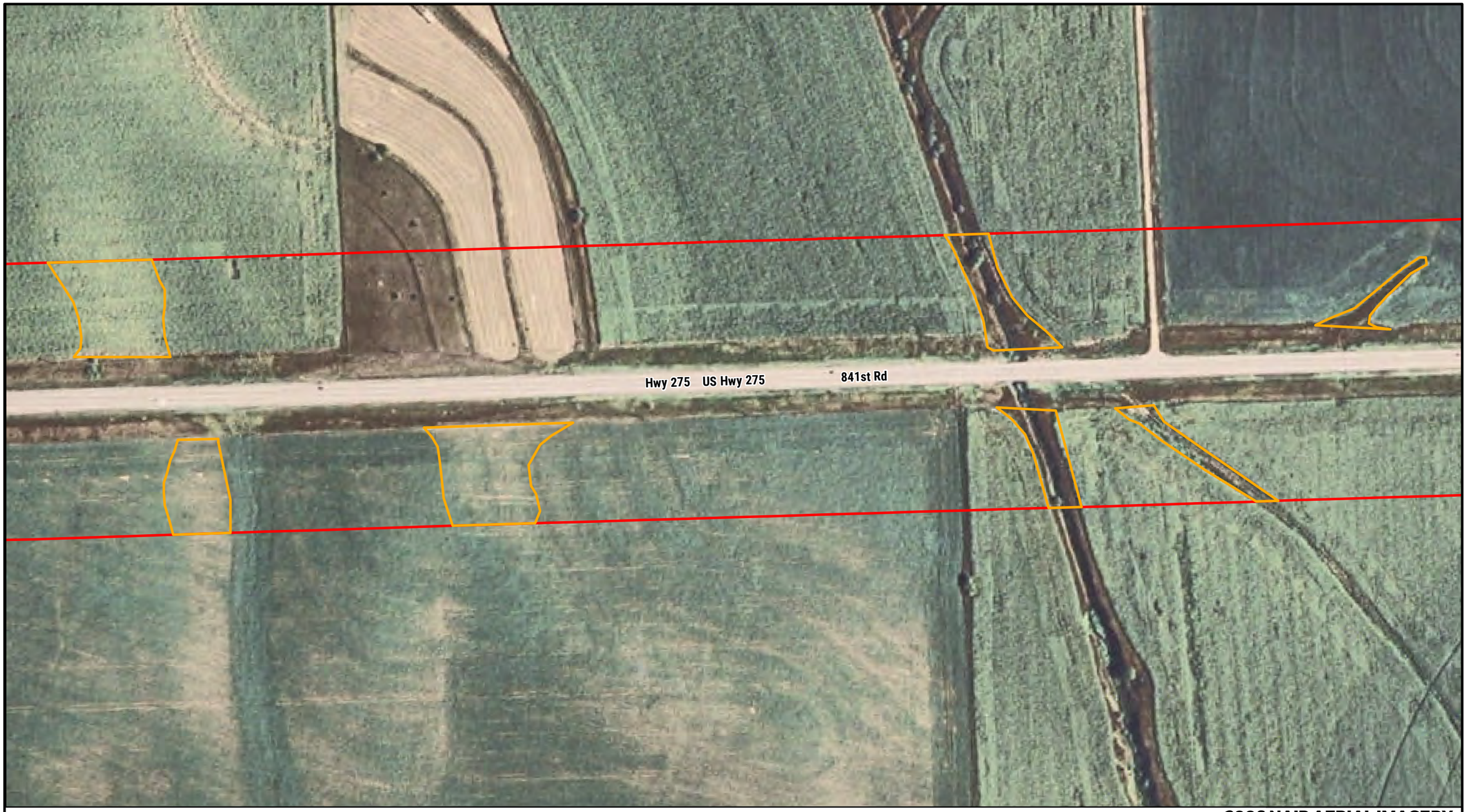
FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
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- Village Boundary
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2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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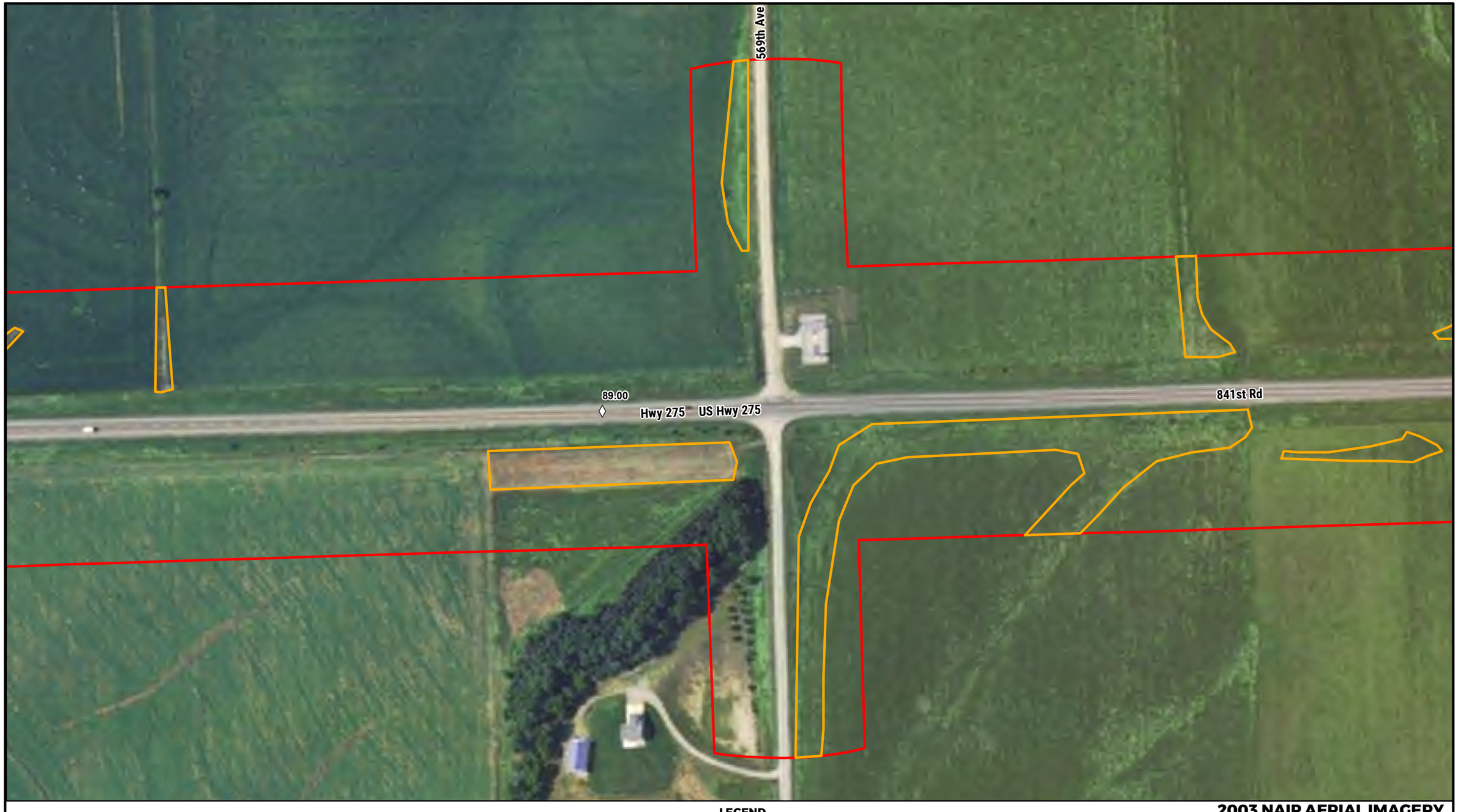
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FEET

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LEGEND

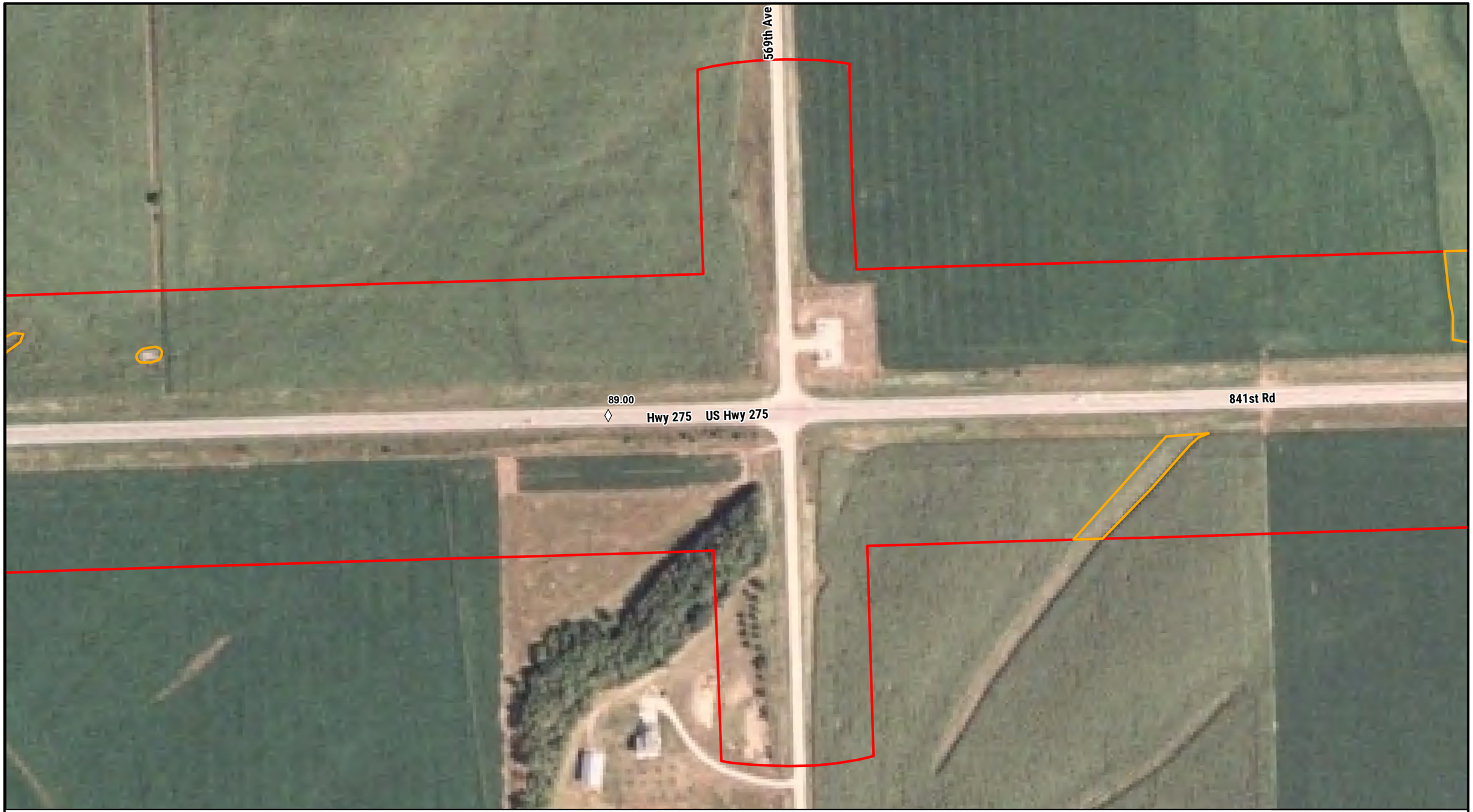
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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LEGEND

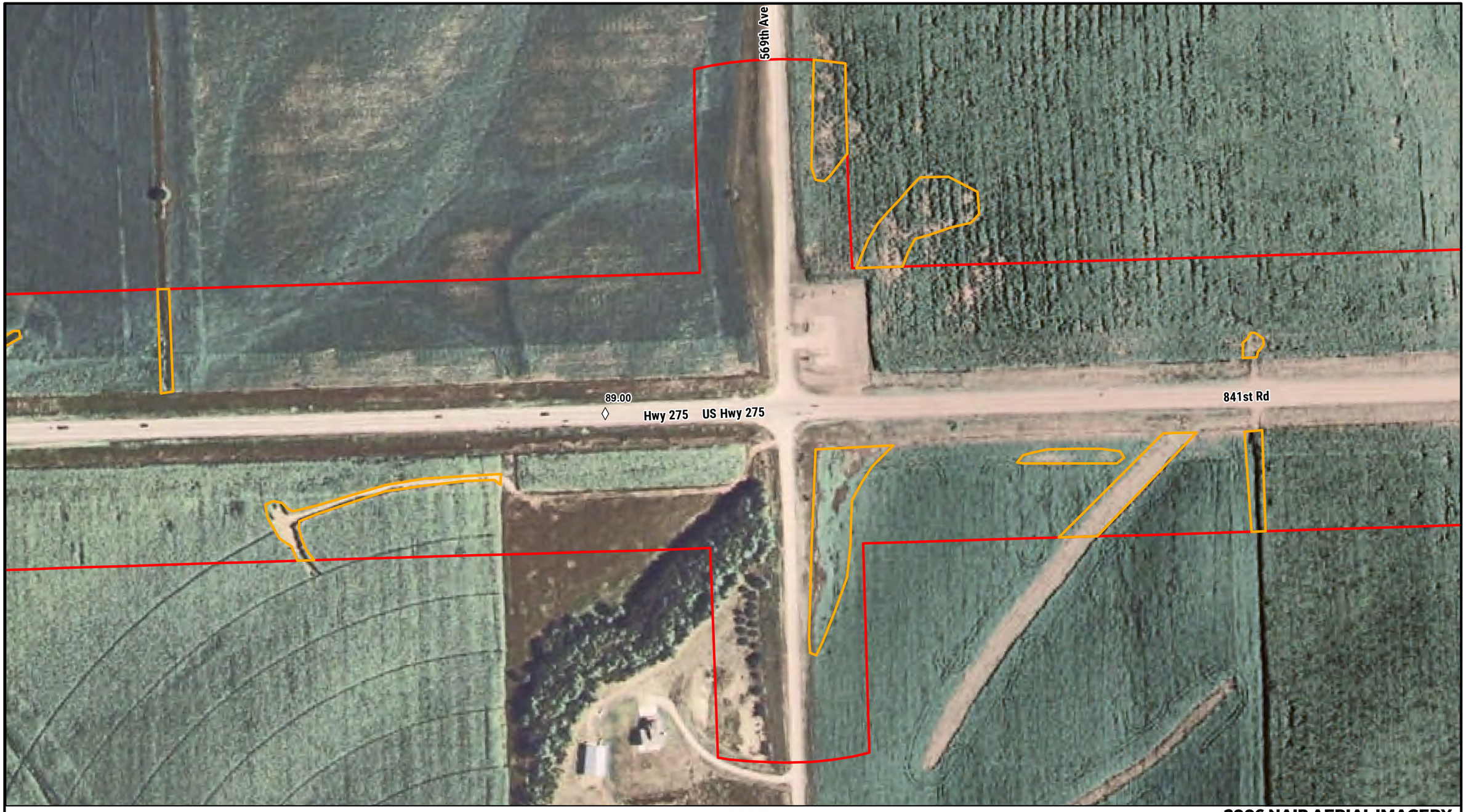
◊ Mile Marker
Study Area
Wet Signature
Village Boundary
County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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DEPARTMENT OF TRANSPORTATION

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

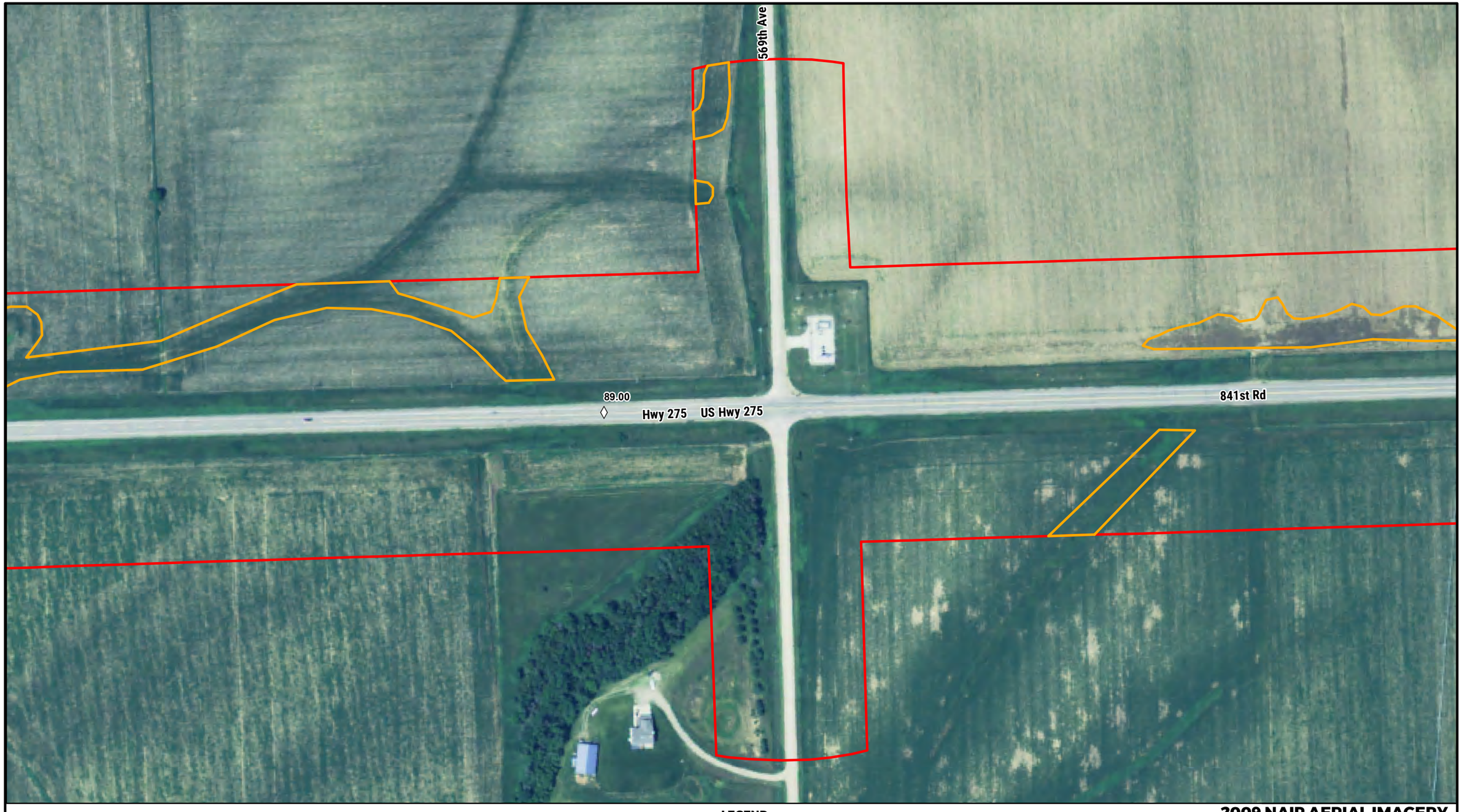
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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DEPARTMENT OF TRANSPORTATION

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

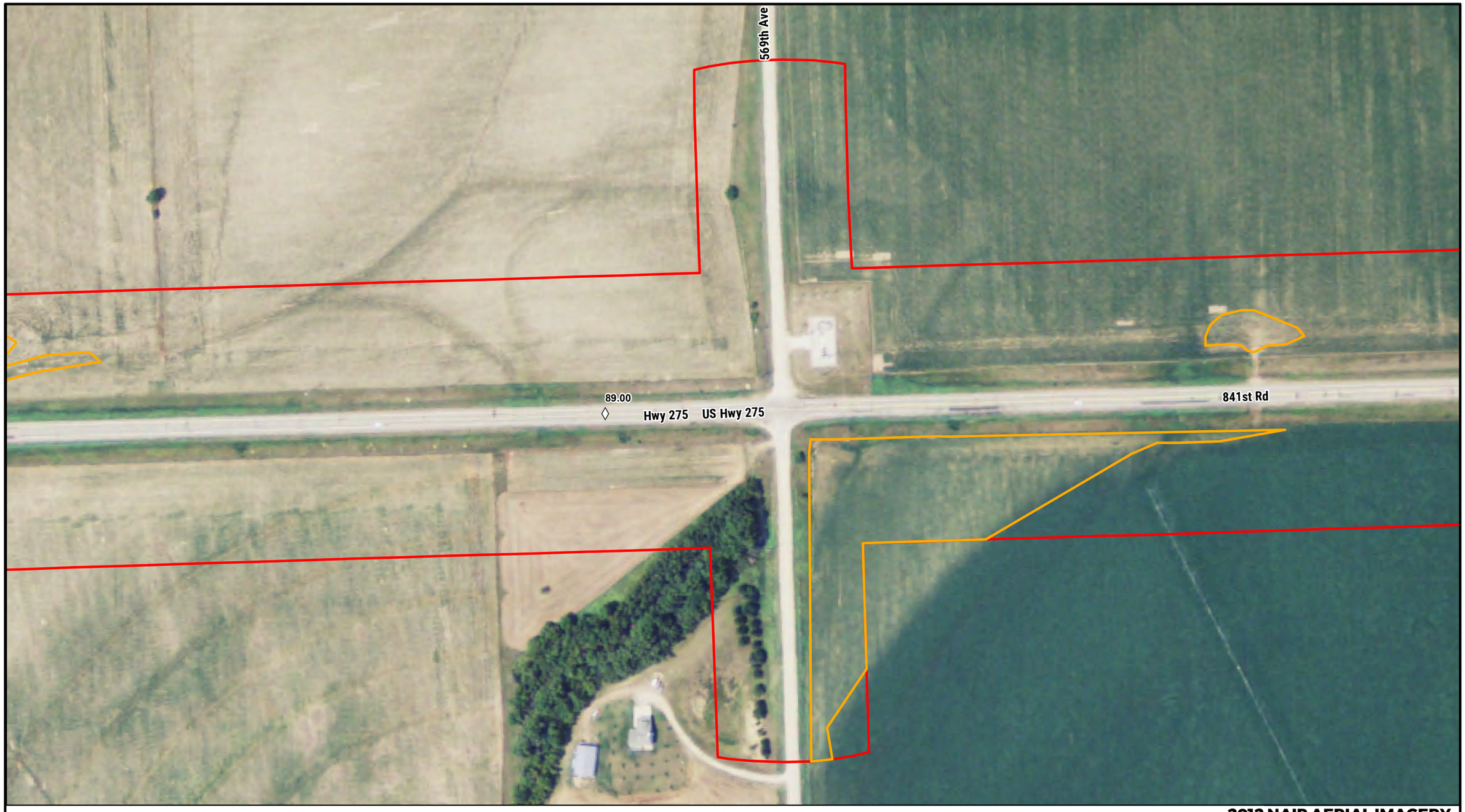
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
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LEGEND

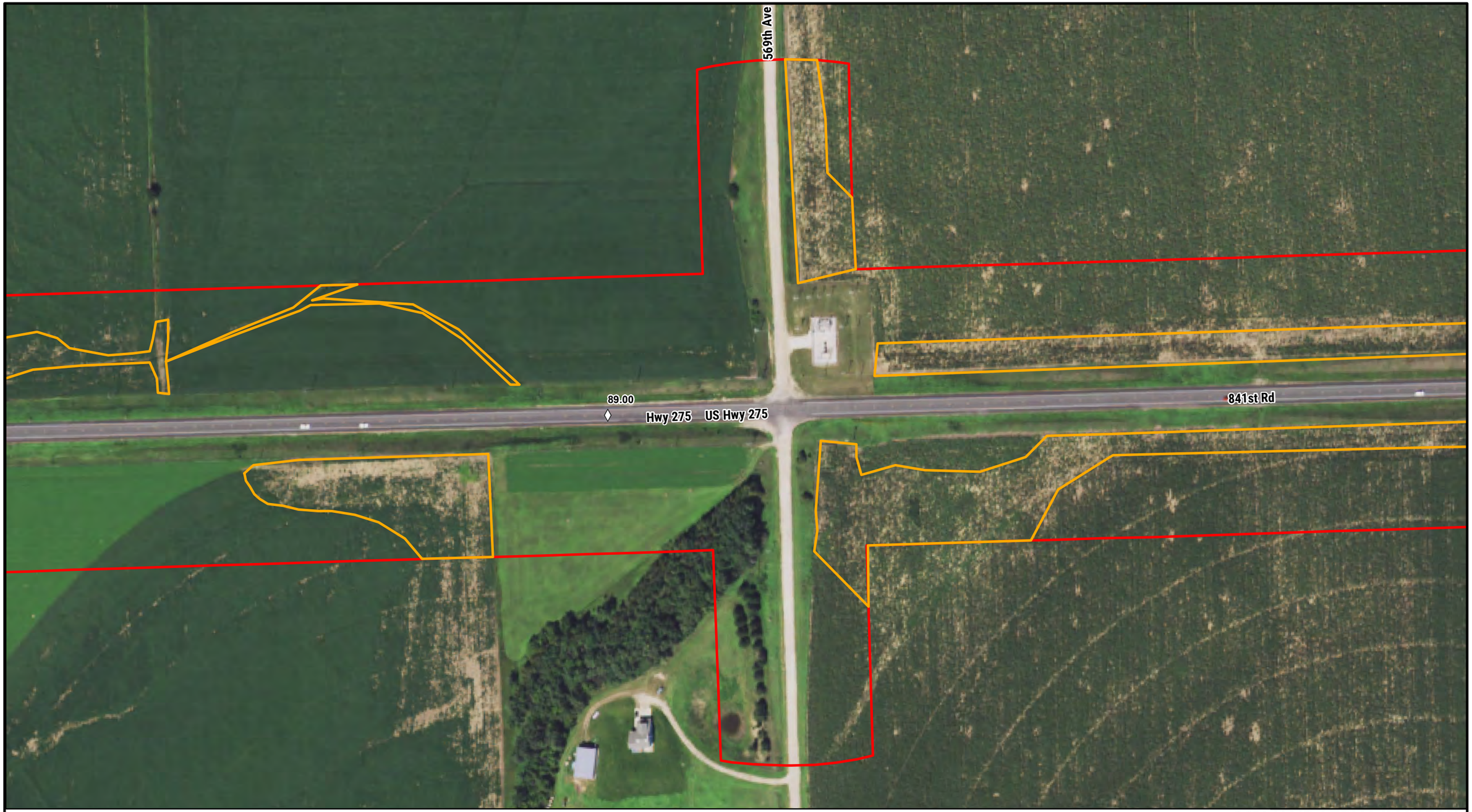
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

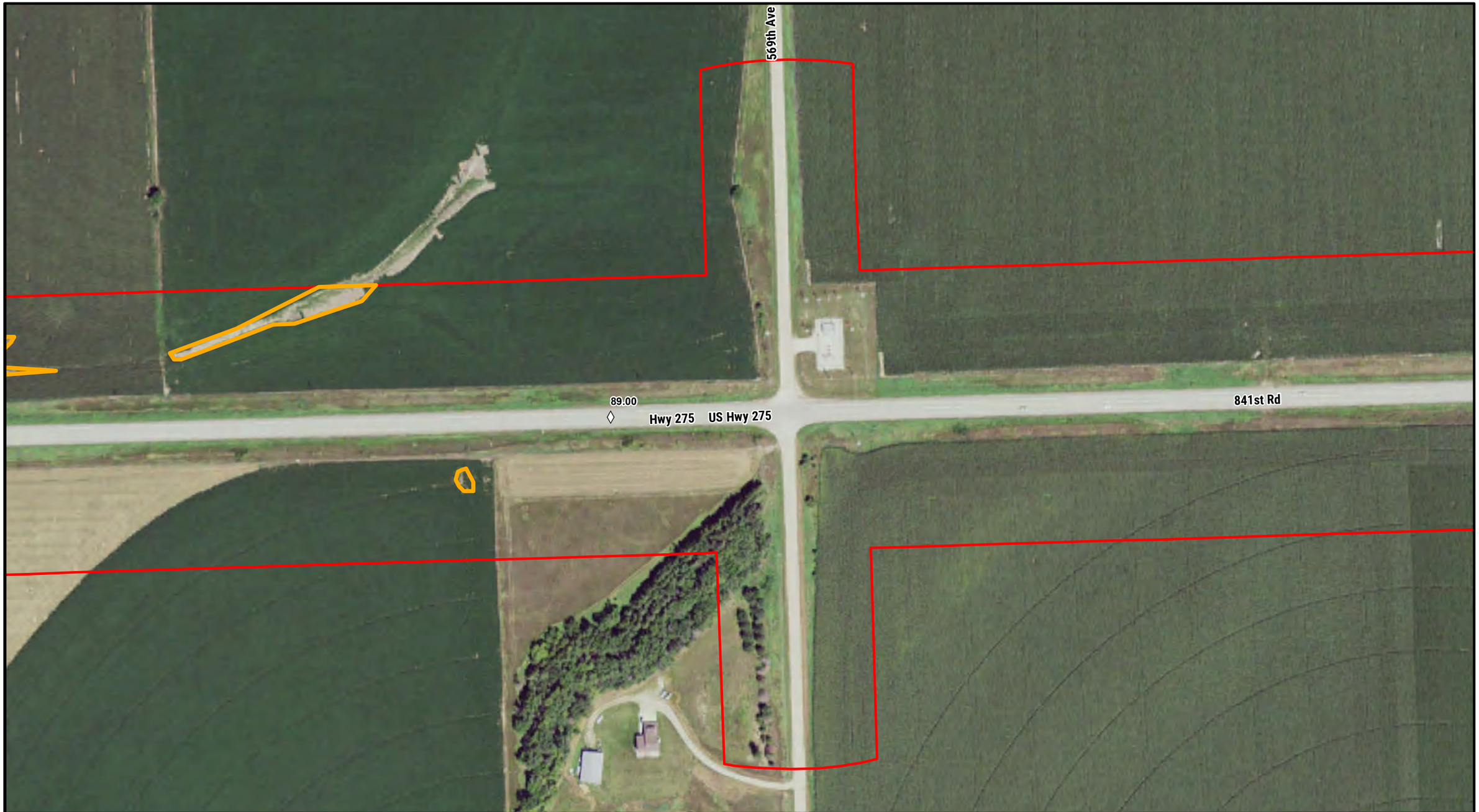
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

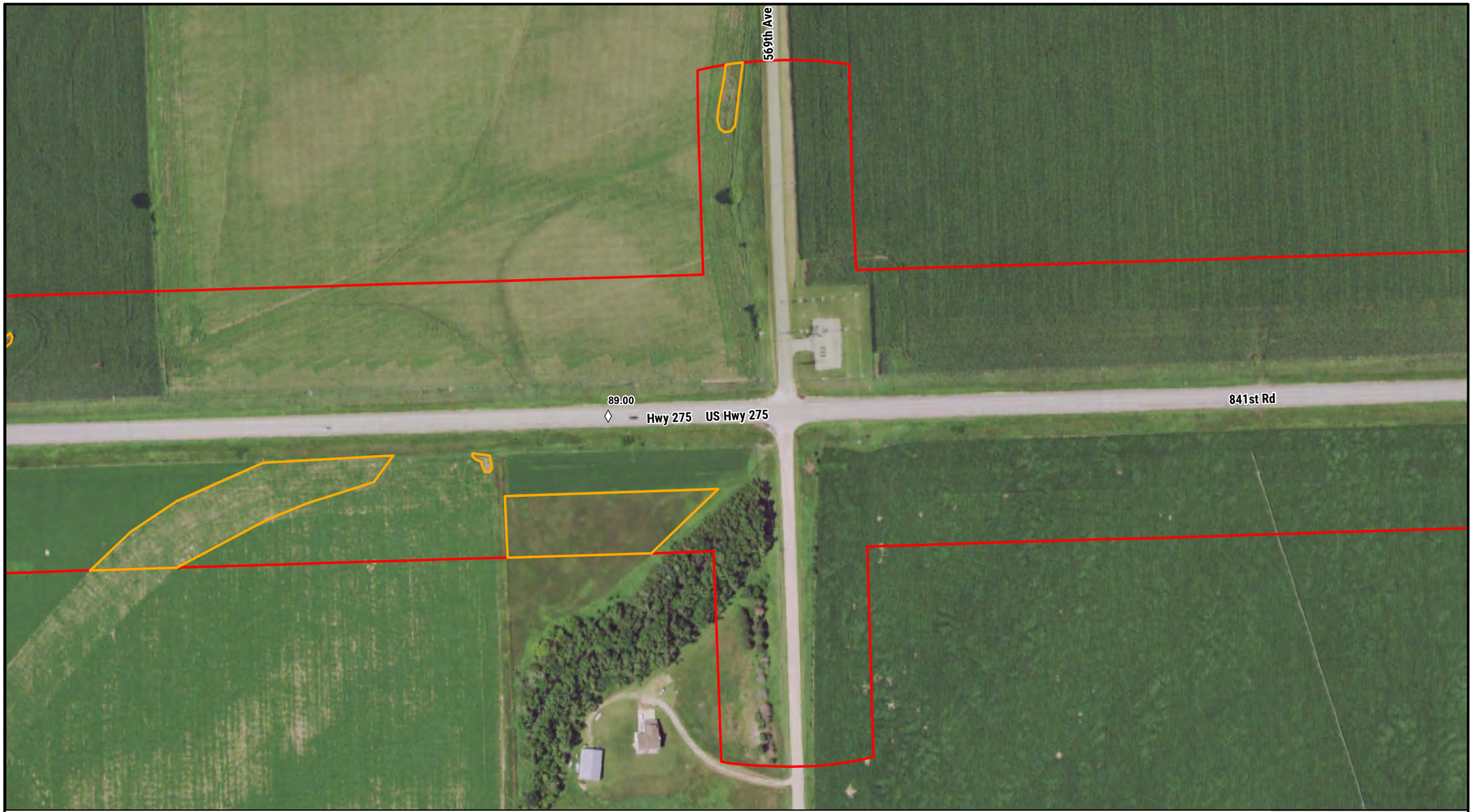
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

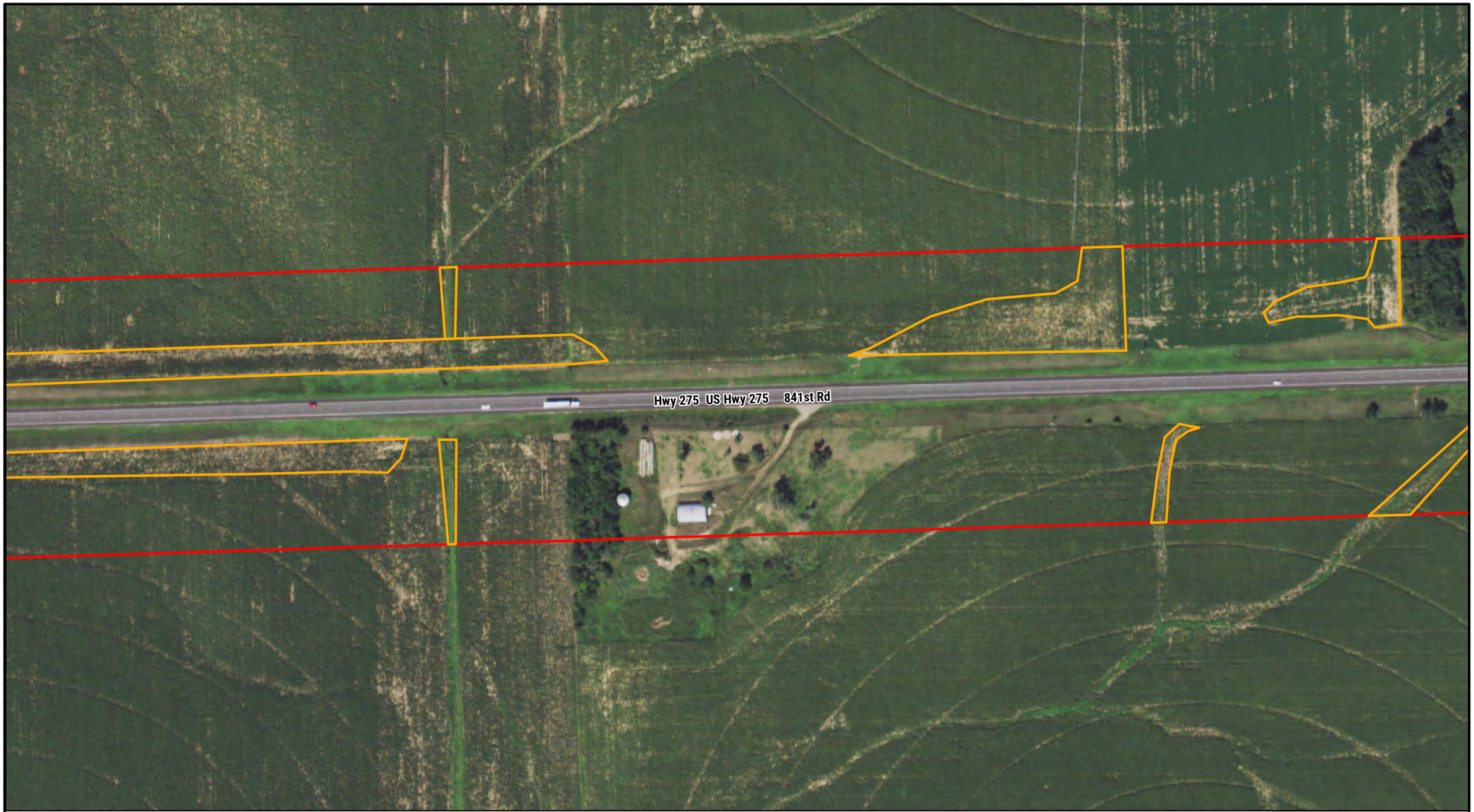
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FEET

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LEGEND

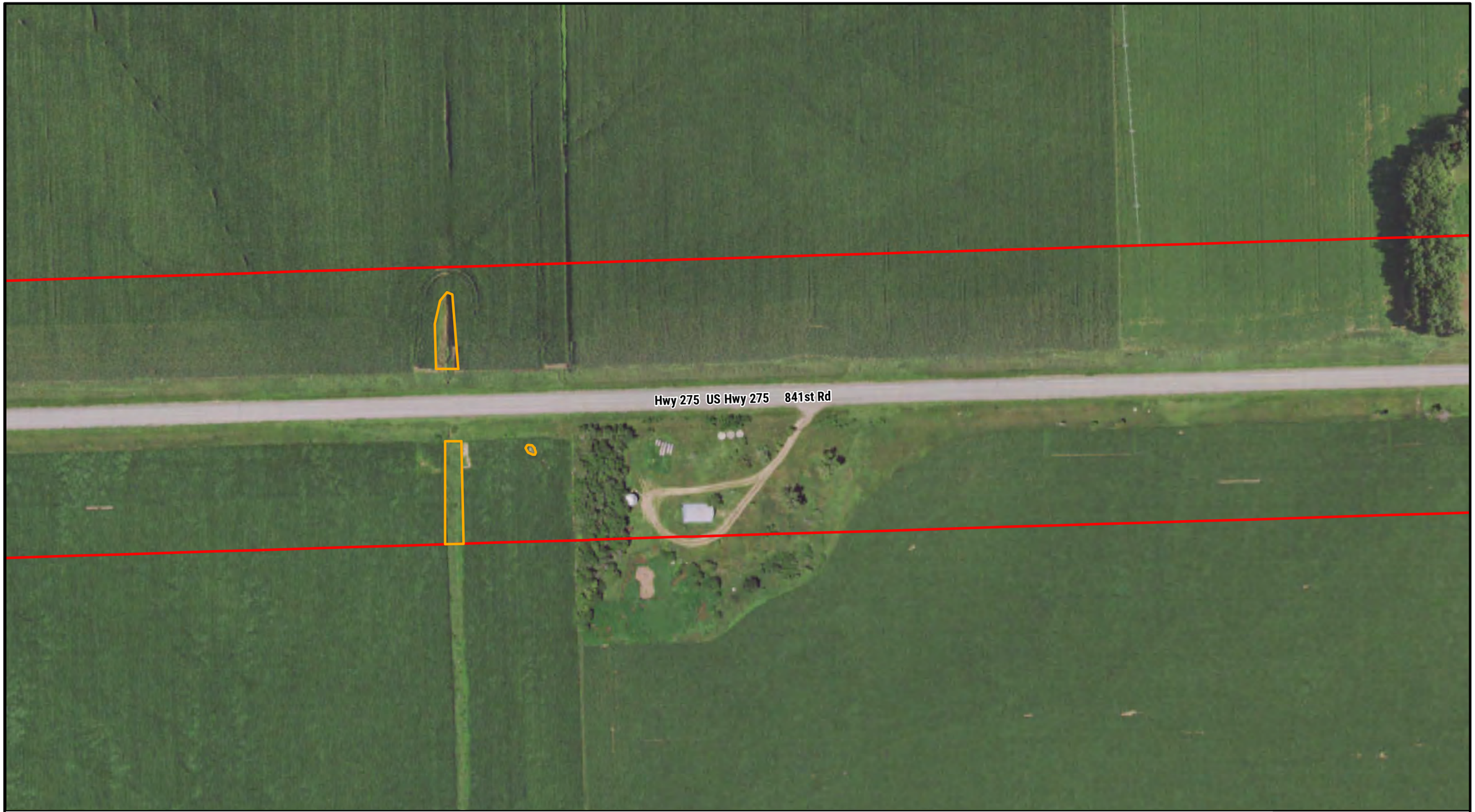
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

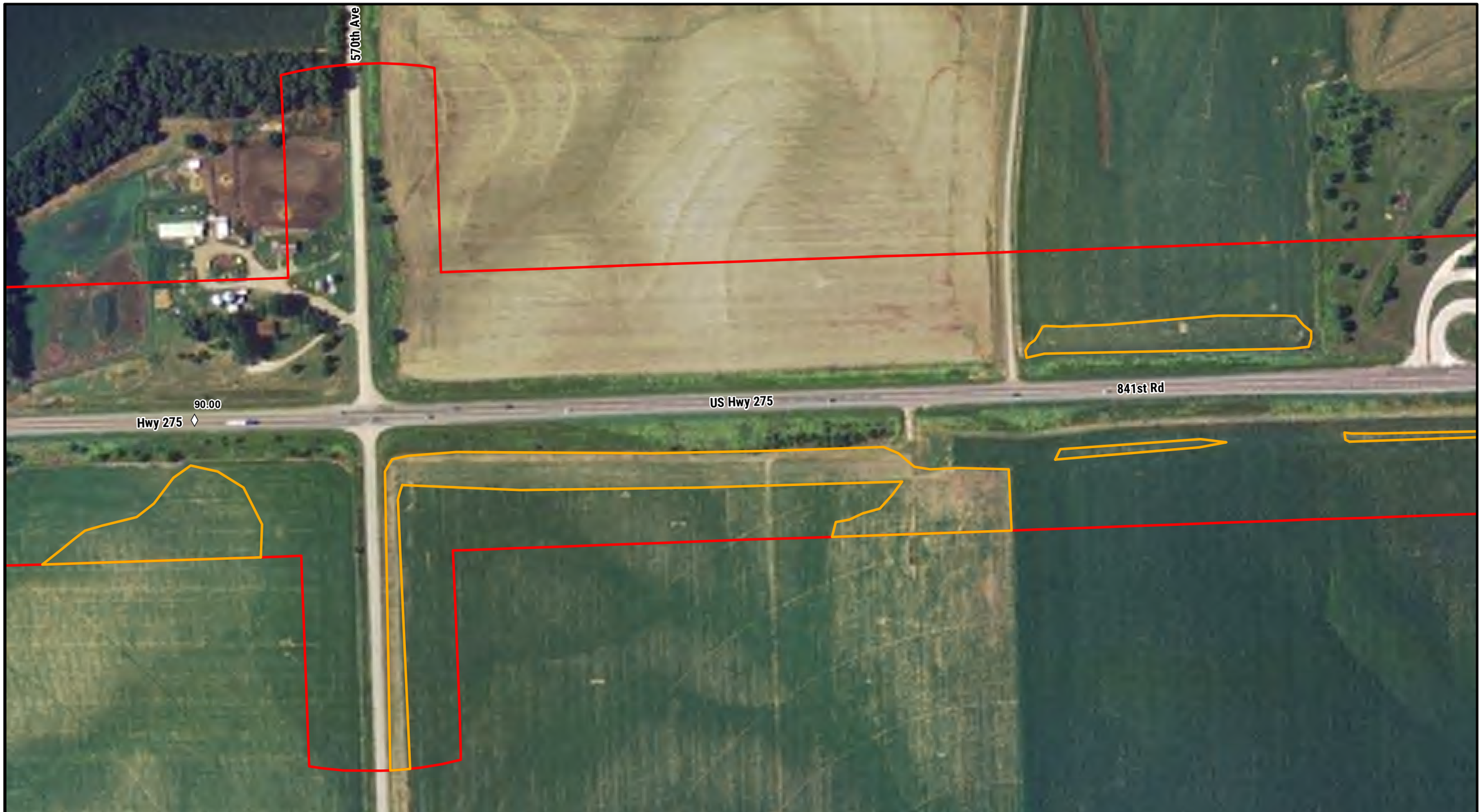
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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DEPARTMENT OF TRANSPORTATION

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

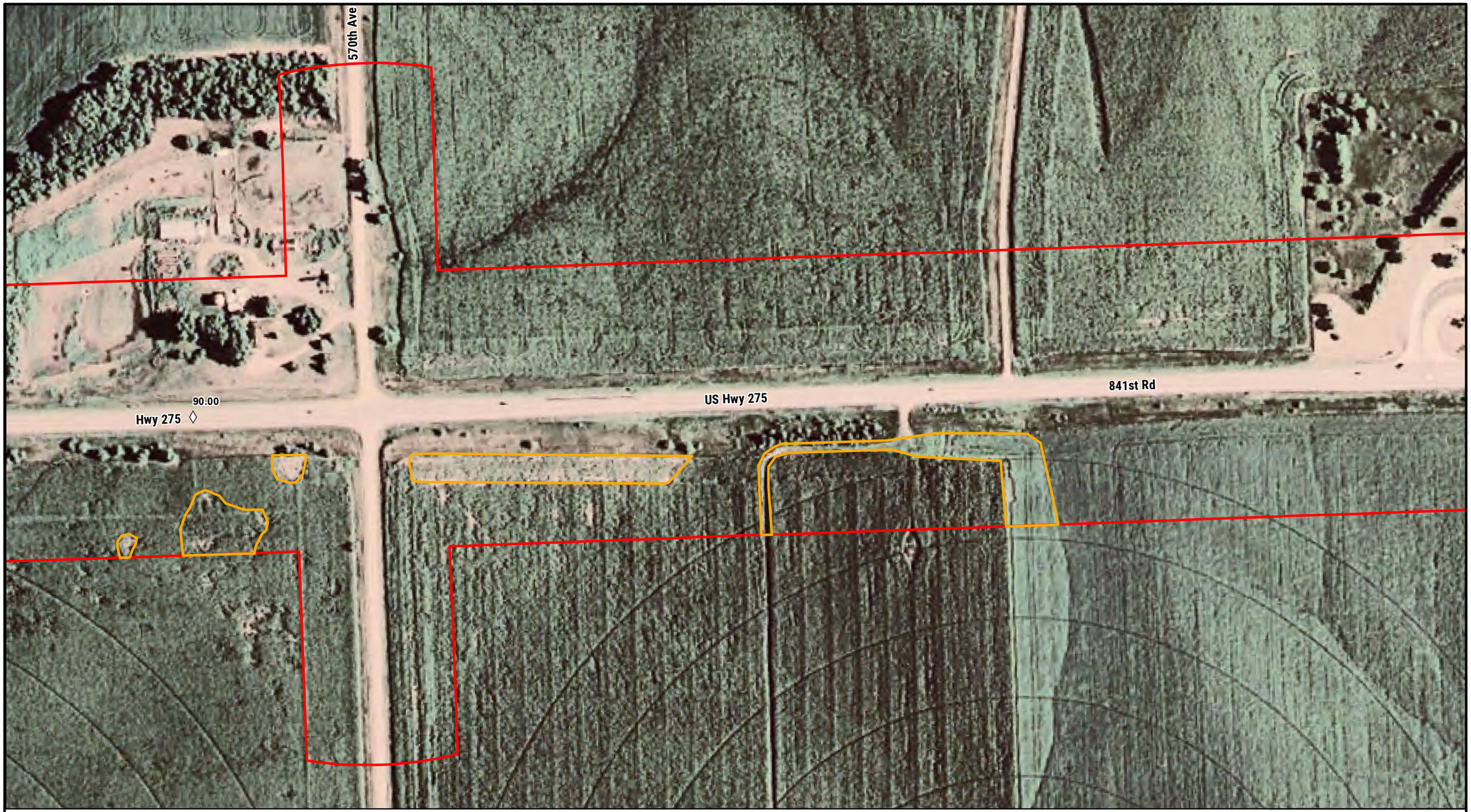
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
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- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
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- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

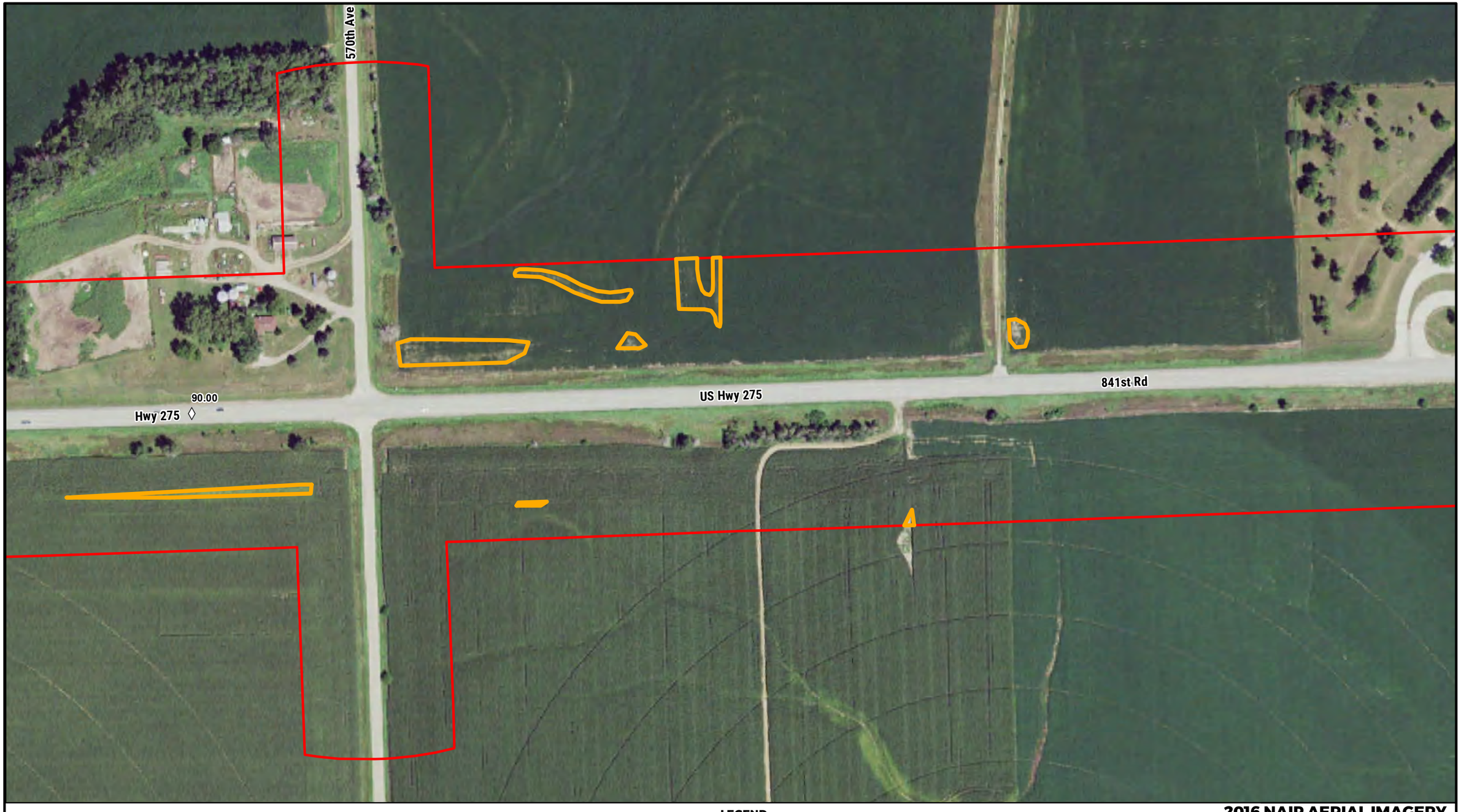
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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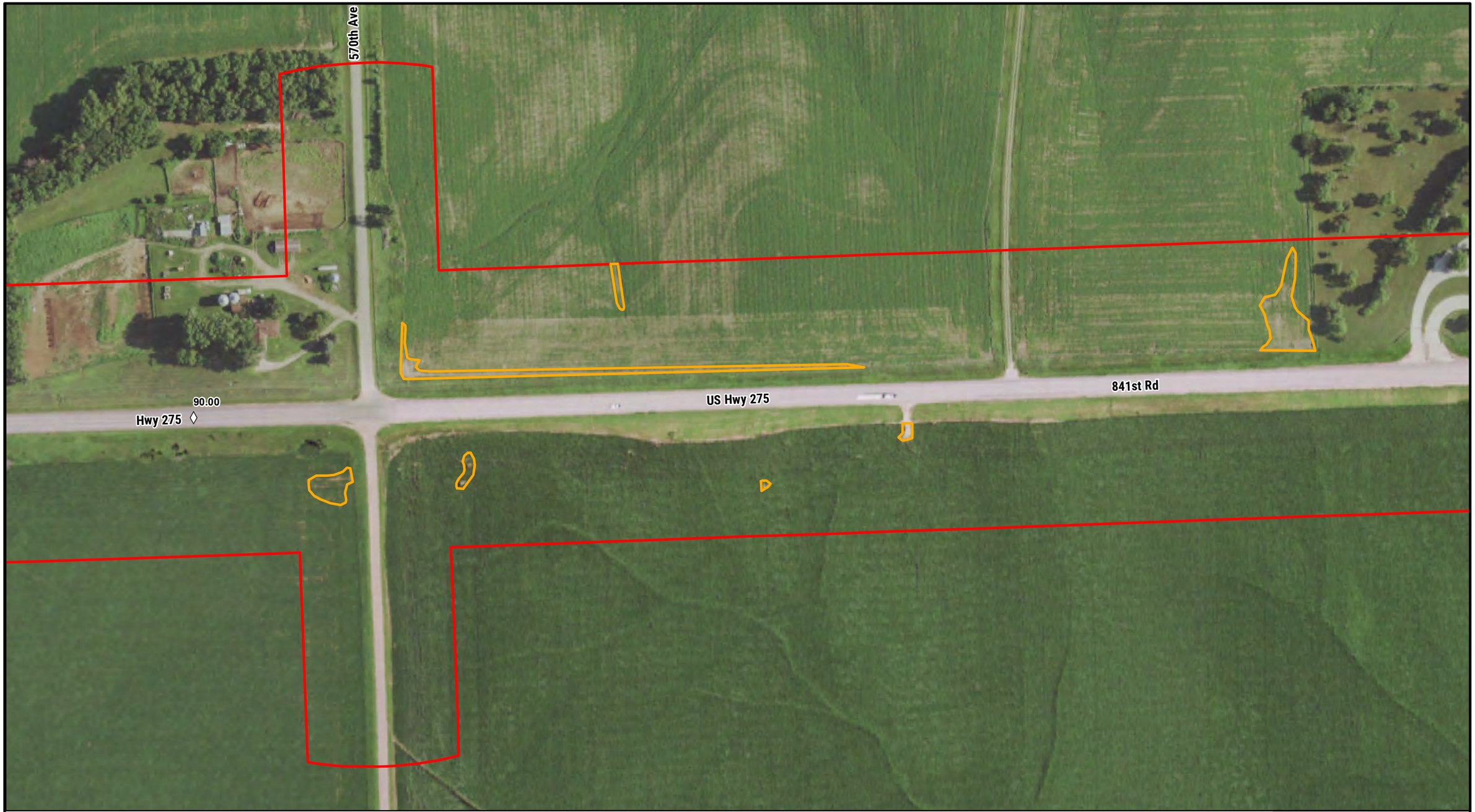
FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
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- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

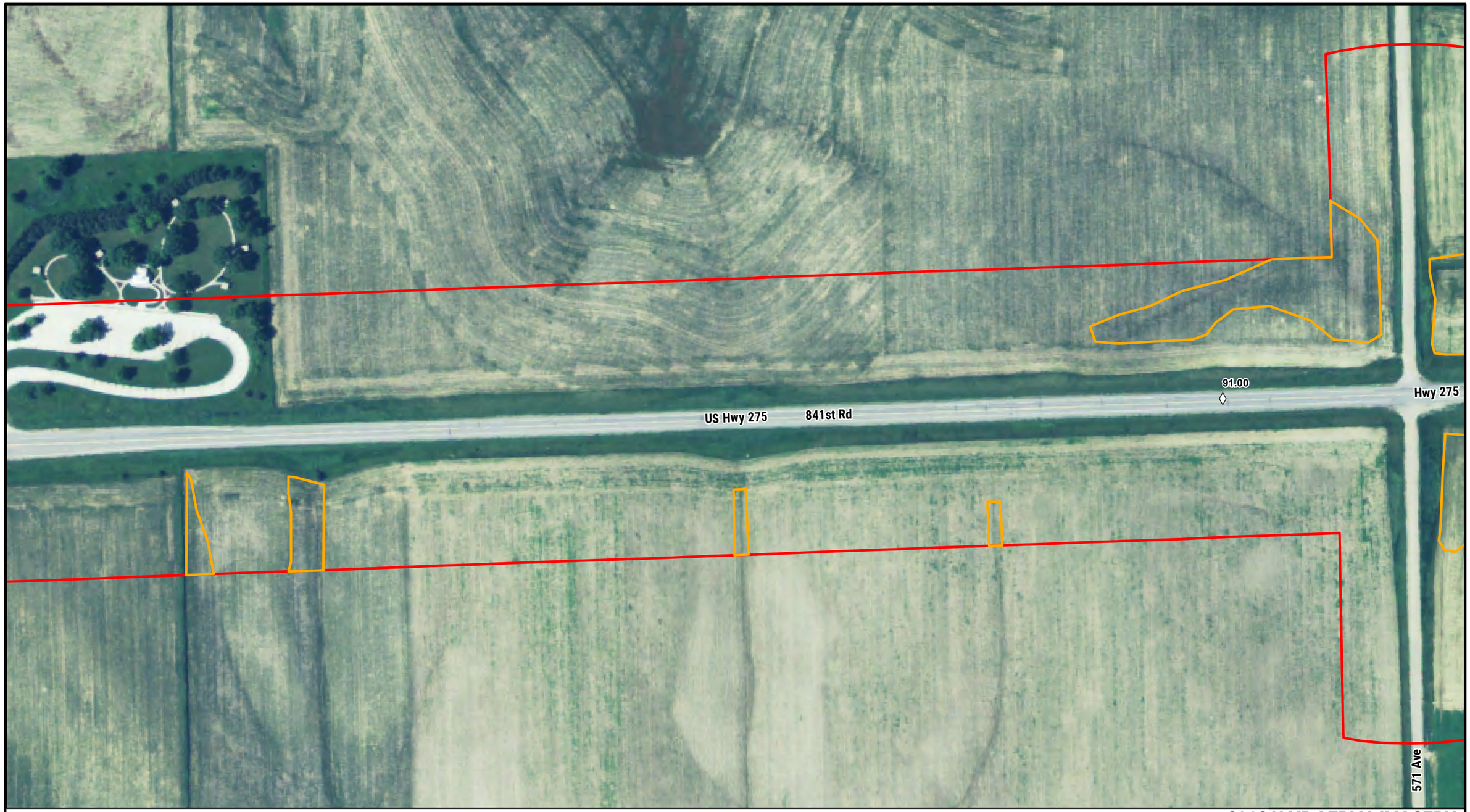
NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

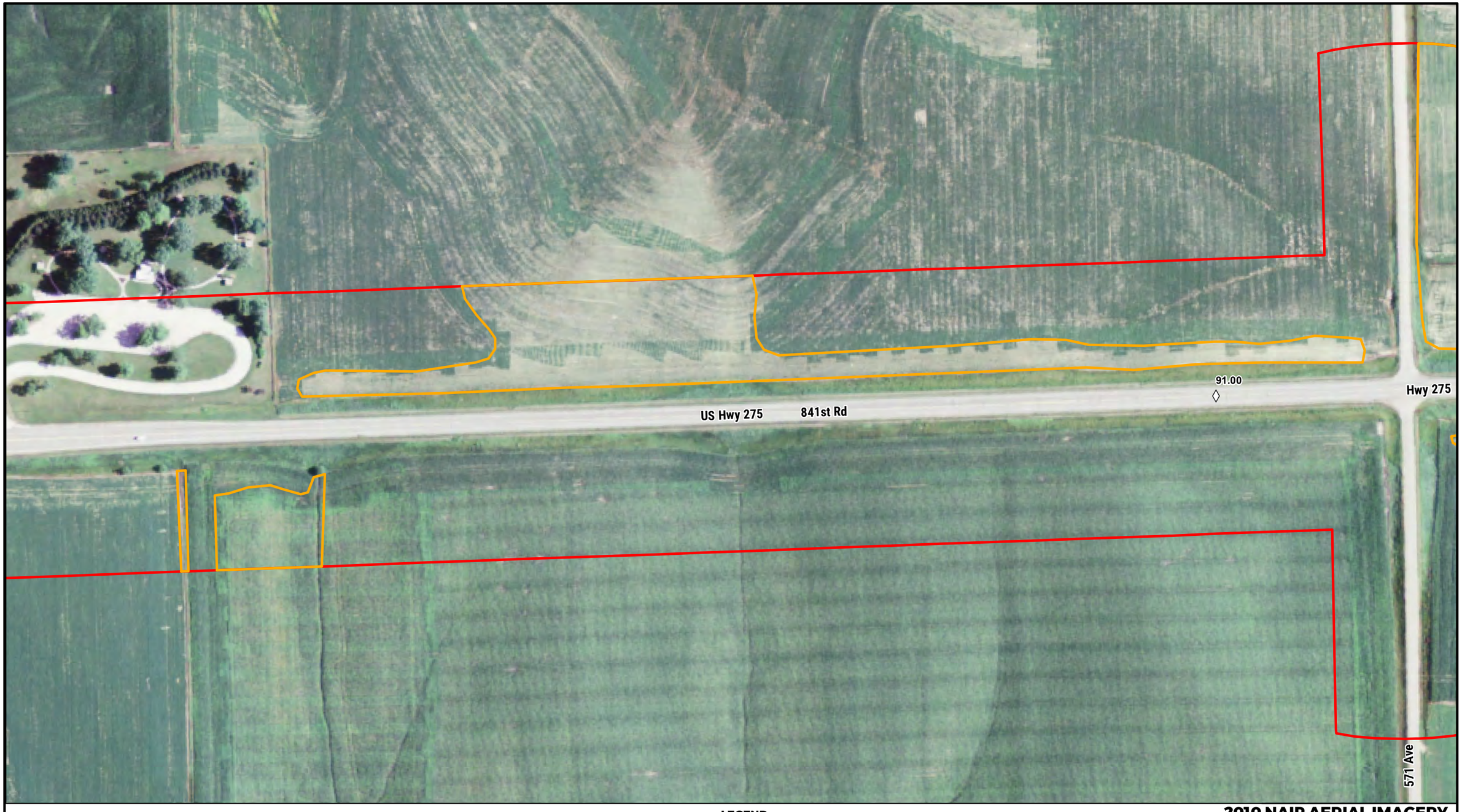
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

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- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

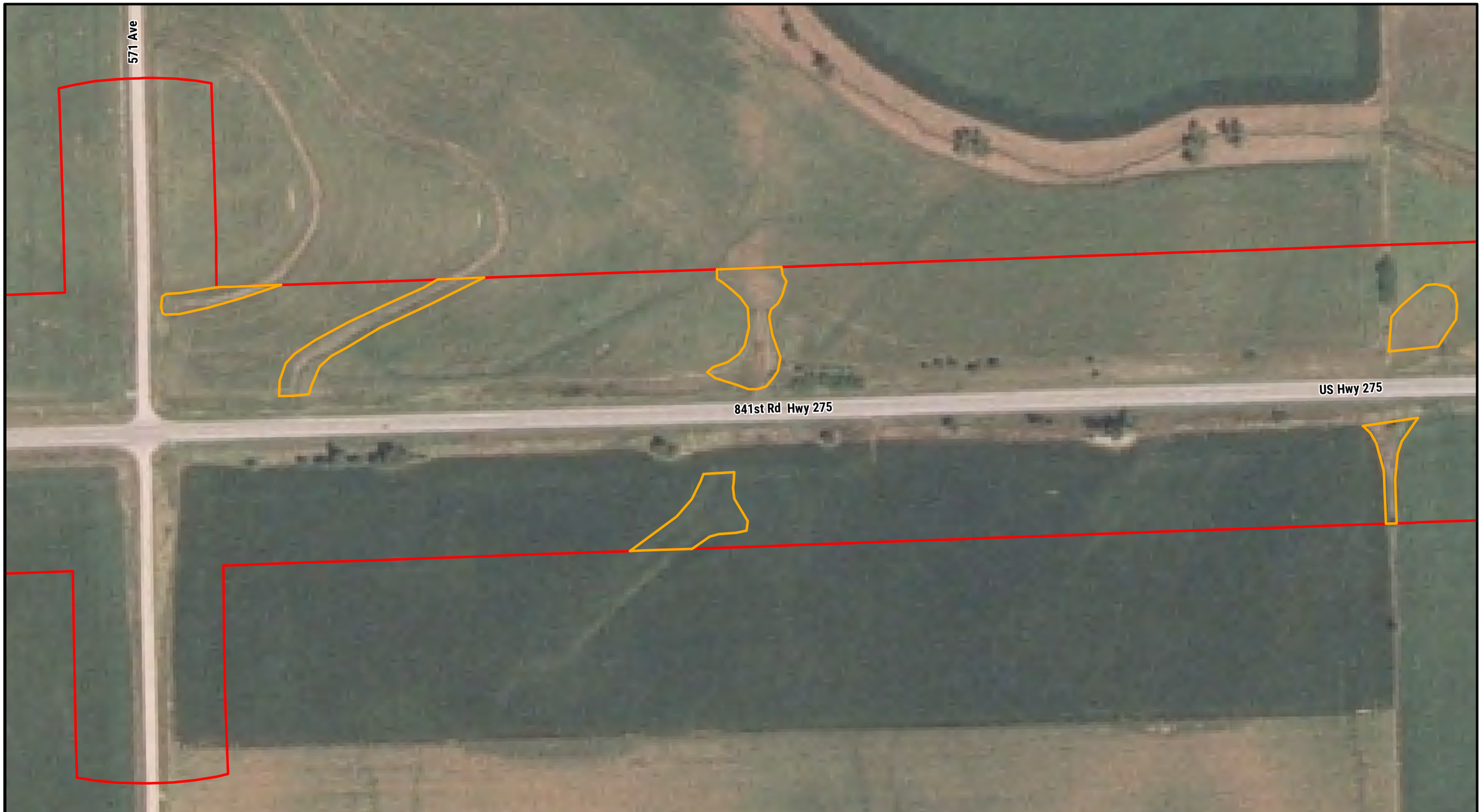
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
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- Wet Signature
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- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

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- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

571 Ave

841st Rd Hwy 275

US Hwy 275

NEBRASKA
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N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

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- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
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- Village Boundary
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2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

571 Ave

841st Rd Hwy 275

US Hwy 275

NEBRASKA
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FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FEET

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LEGEND

- Mile Marker
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- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

571 Ave

841st Rd Hwy 275

US Hwy 275

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LEGEND

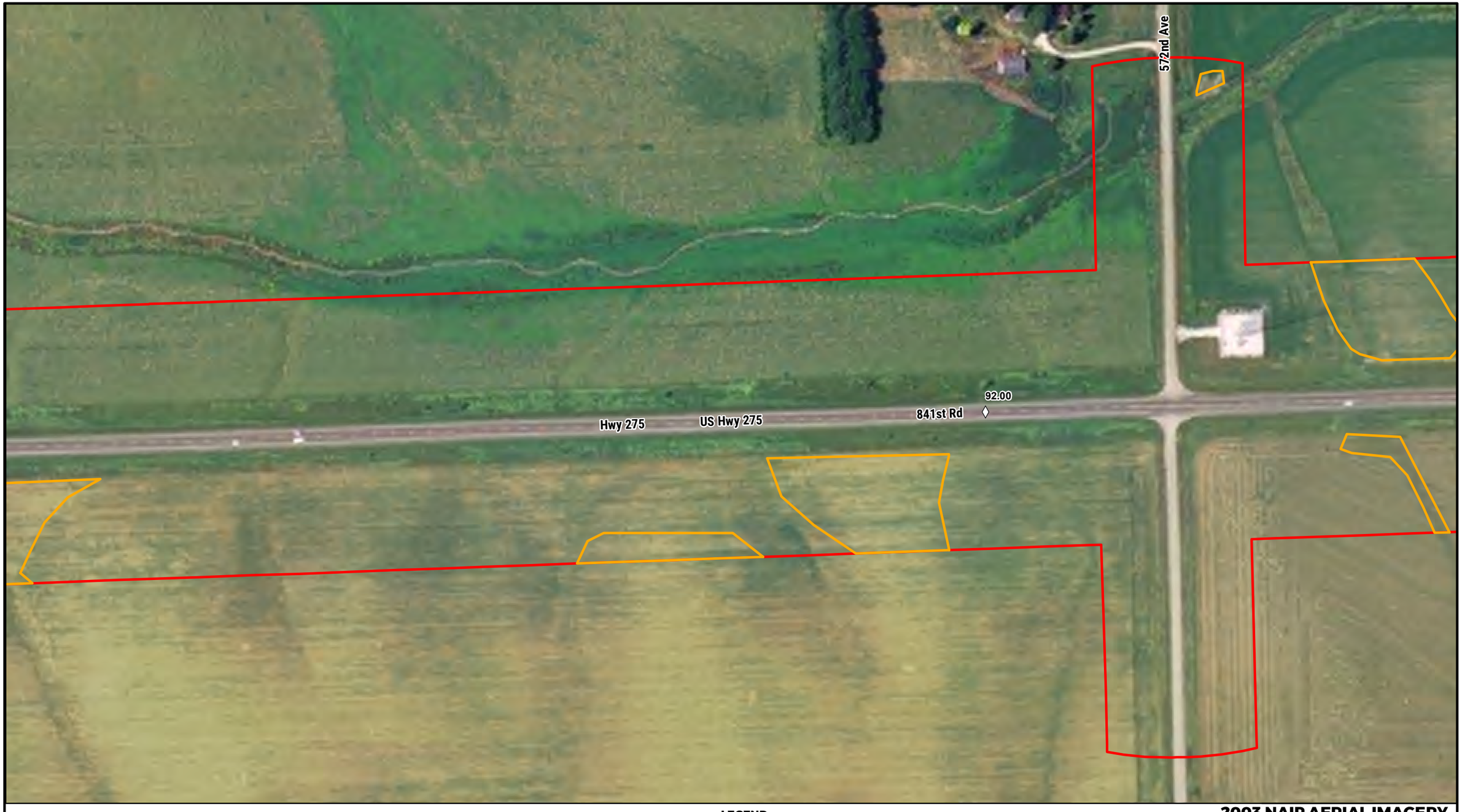
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

572nd Ave

92.00

841st Rd

Hwy 275

US Hwy 275

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

572nd Ave

92.00

841st Rd

Hwy 275

US Hwy 275

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
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2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

572nd Ave

92.00

841st Rd

Hwy 275

US Hwy 275

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

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- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

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- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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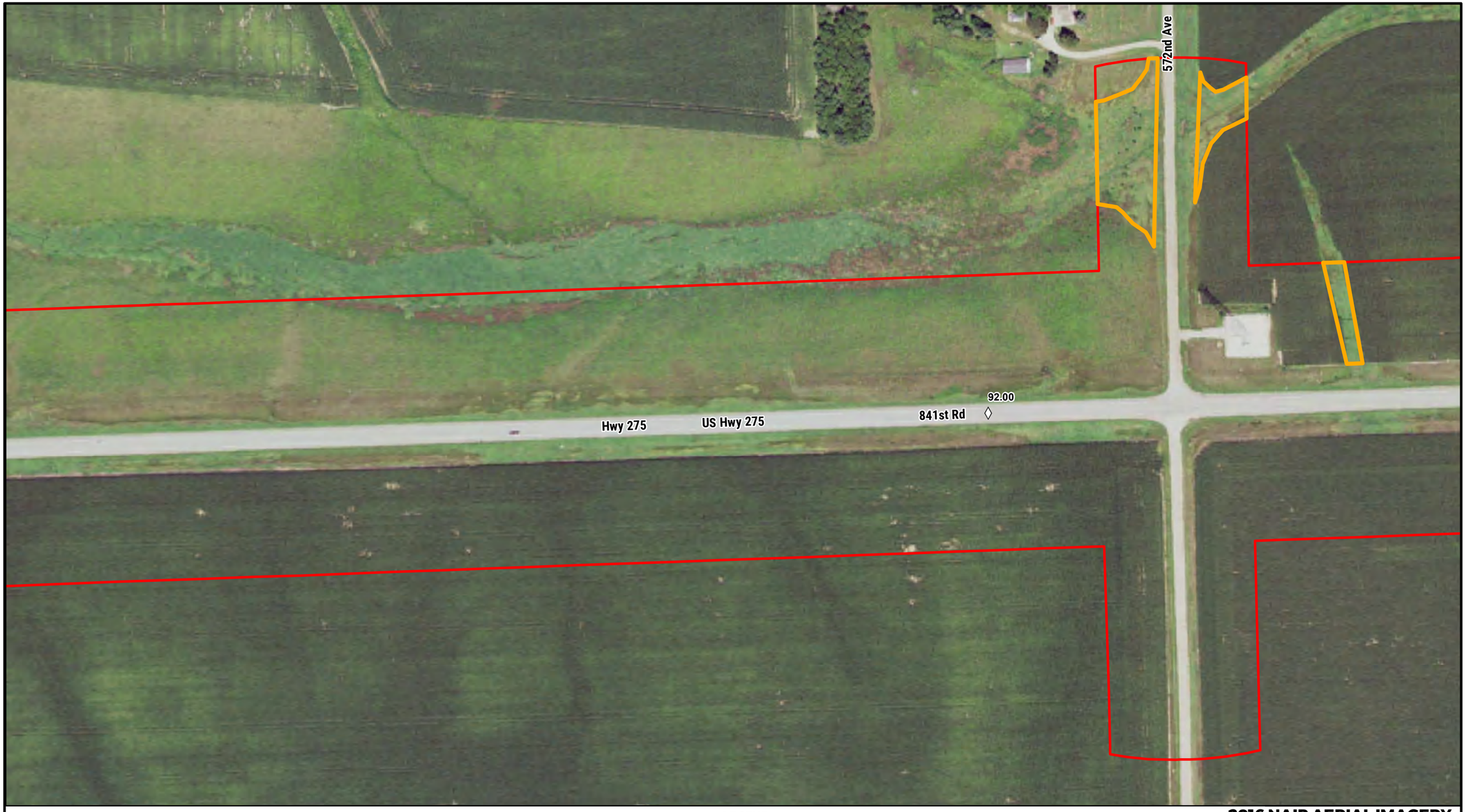
FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
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2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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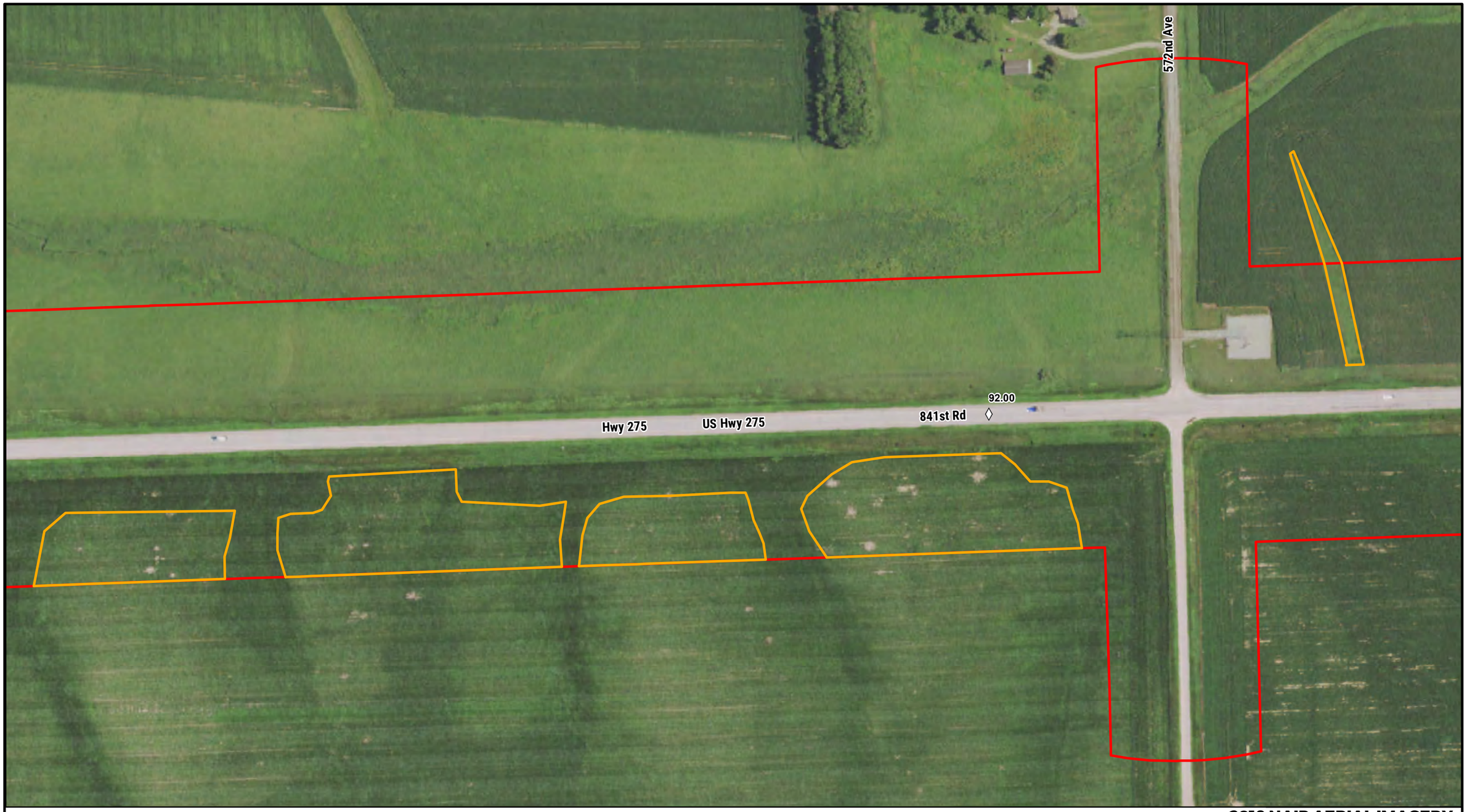
FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

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- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

◊ Mile Marker
Study Area
Wet Signature
Village Boundary
County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

573rd Ave

93.00

841st Rd

US Hwy 275

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

573rd Ave

93.00

841st Rd

US Hwy 275

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

573rd Ave

93.00

841st Rd

US Hwy 275

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Wet Signature
- County Boundary
- Study Area
- Village Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

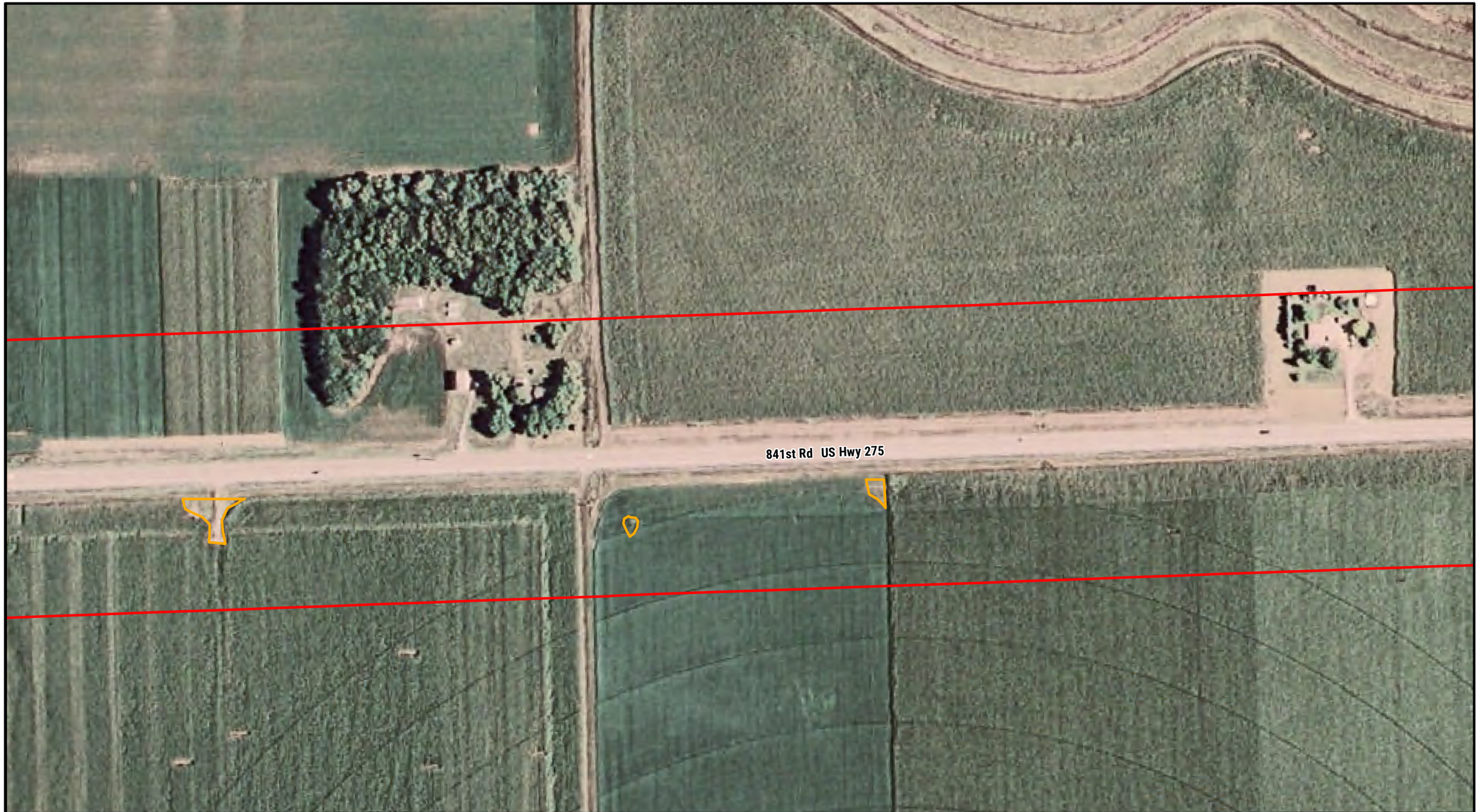
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

841st Rd US Hwy 275

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

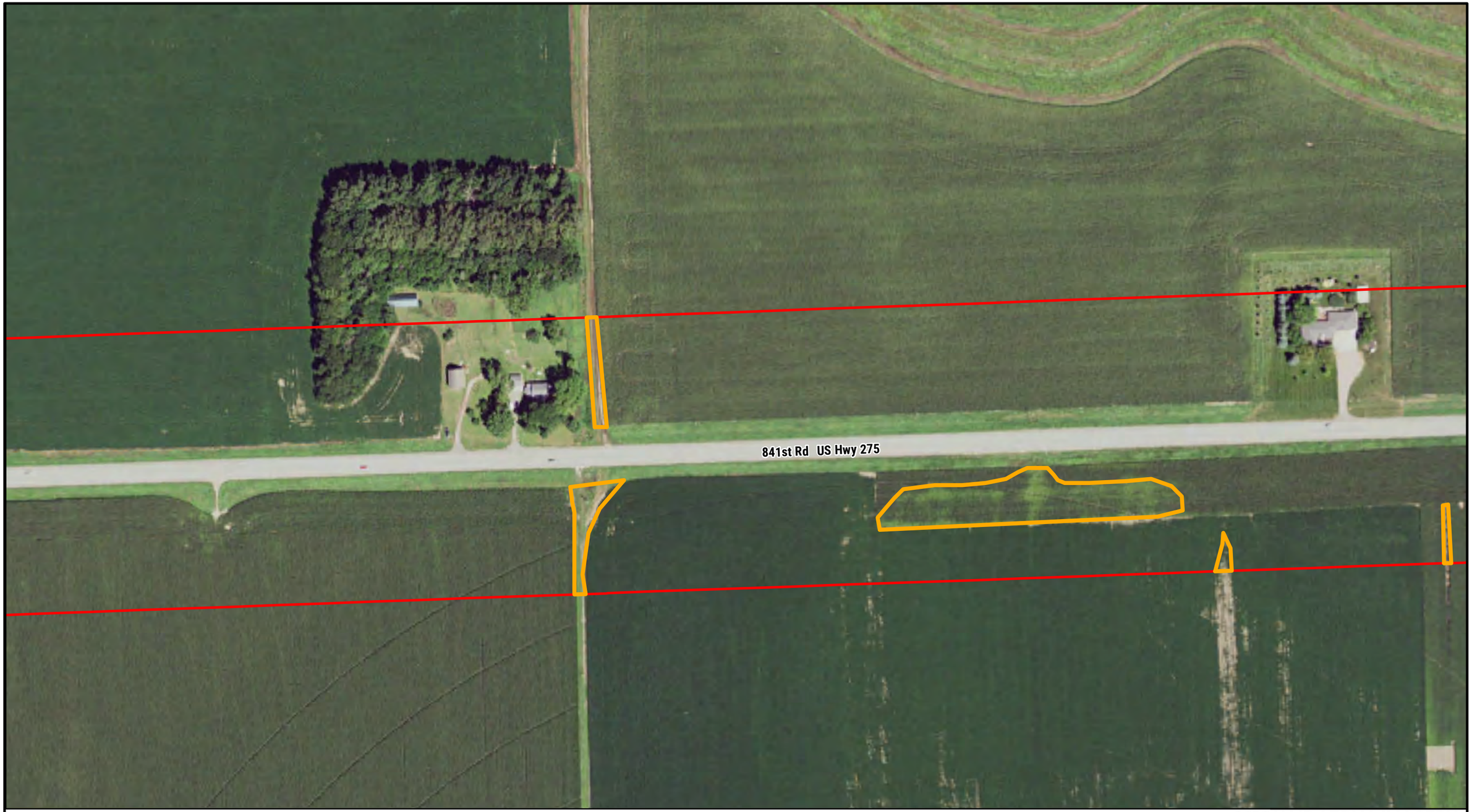
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

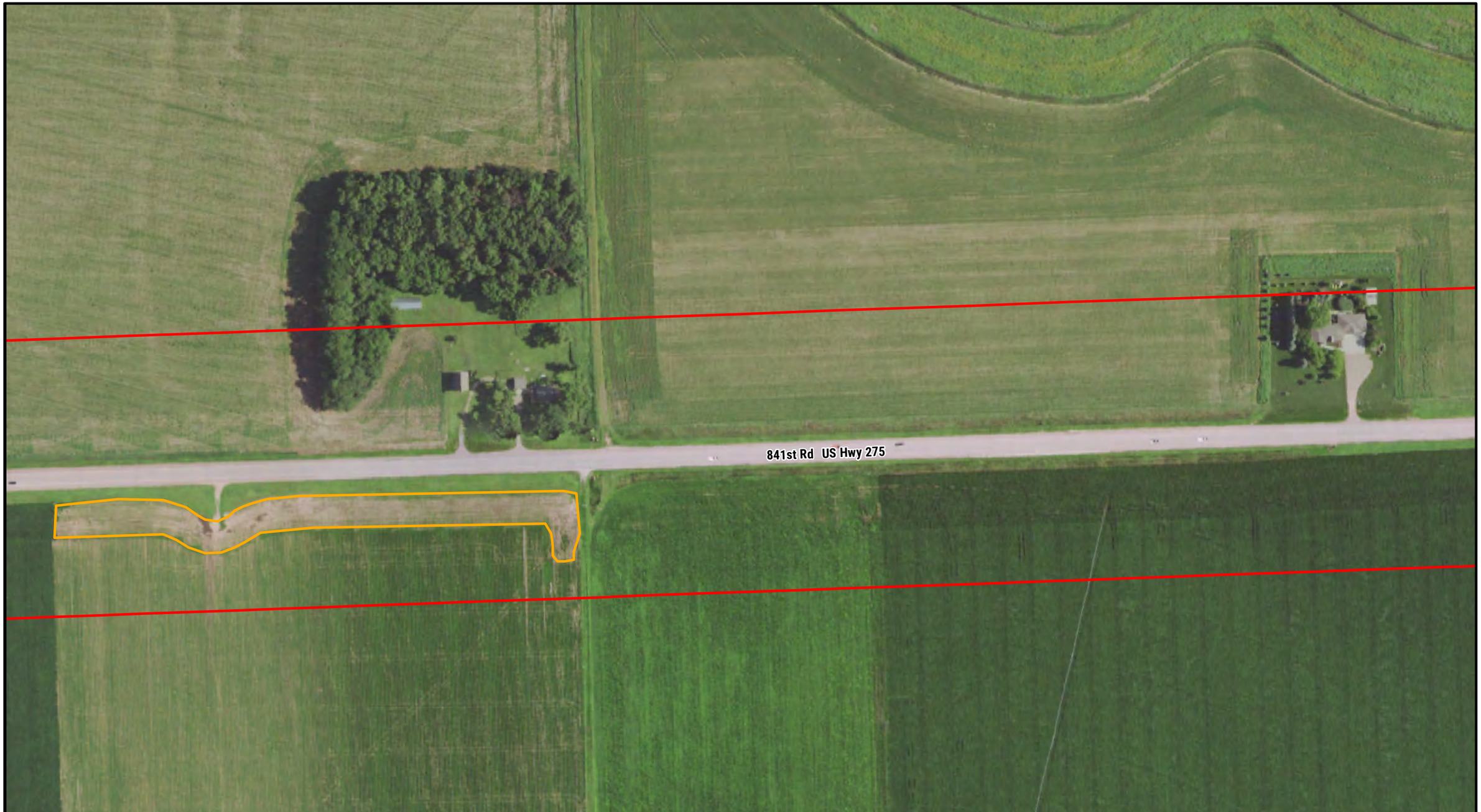
◊ Mile Marker
Study Area
Wet Signature
Village Boundary
County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

◊ Mile Marker
Study Area
Wet Signature
Village Boundary
County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

574th Ave

94.00

841st Rd

US Hwy 275

State Hwy 15

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

574th Ave

94.00

841st Rd

US Hwy 275

State Hwy 15

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

Mile Marker
Study Area
Wet Signature
Village Boundary
County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

574th Ave

94.00

841st Rd

US Hwy 275

State Hwy 15

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

574th Ave

94:00

841st Rd

US Hwy 275

State Hwy 15

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

574th Ave

94.00

841st Rd

US Hwy 275

State Hwy 15

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

Mile Marker
Study Area
Wet Signature
Village Boundary
County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

574th Ave

94.00

841st Rd

US Hwy 275

State Hwy 15

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

574th Ave

94:00

841st Rd

US Hwy 275

State Hwy 15

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

574th Ave

94.00

841st Rd

US Hwy 275

State Hwy 15

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

574th Ave

94.00

841st Rd

US Hwy 275

State Hwy 15

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

574th Ave

94.00

841st Rd

US Hwy 275

State Hwy 15

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

574th Ave

94.00

841st Rd

US Hwy 275

State Hwy 15

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

575th Ave

95.00

841st Rd

841 1/2 Rd

US Hwy 275

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

575th Ave

95.00

841st Rd

841 1/2 Rd

US Hwy 275

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

575th Ave

US Hwy 275

841st Rd

95.00

841 1/2 Rd

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

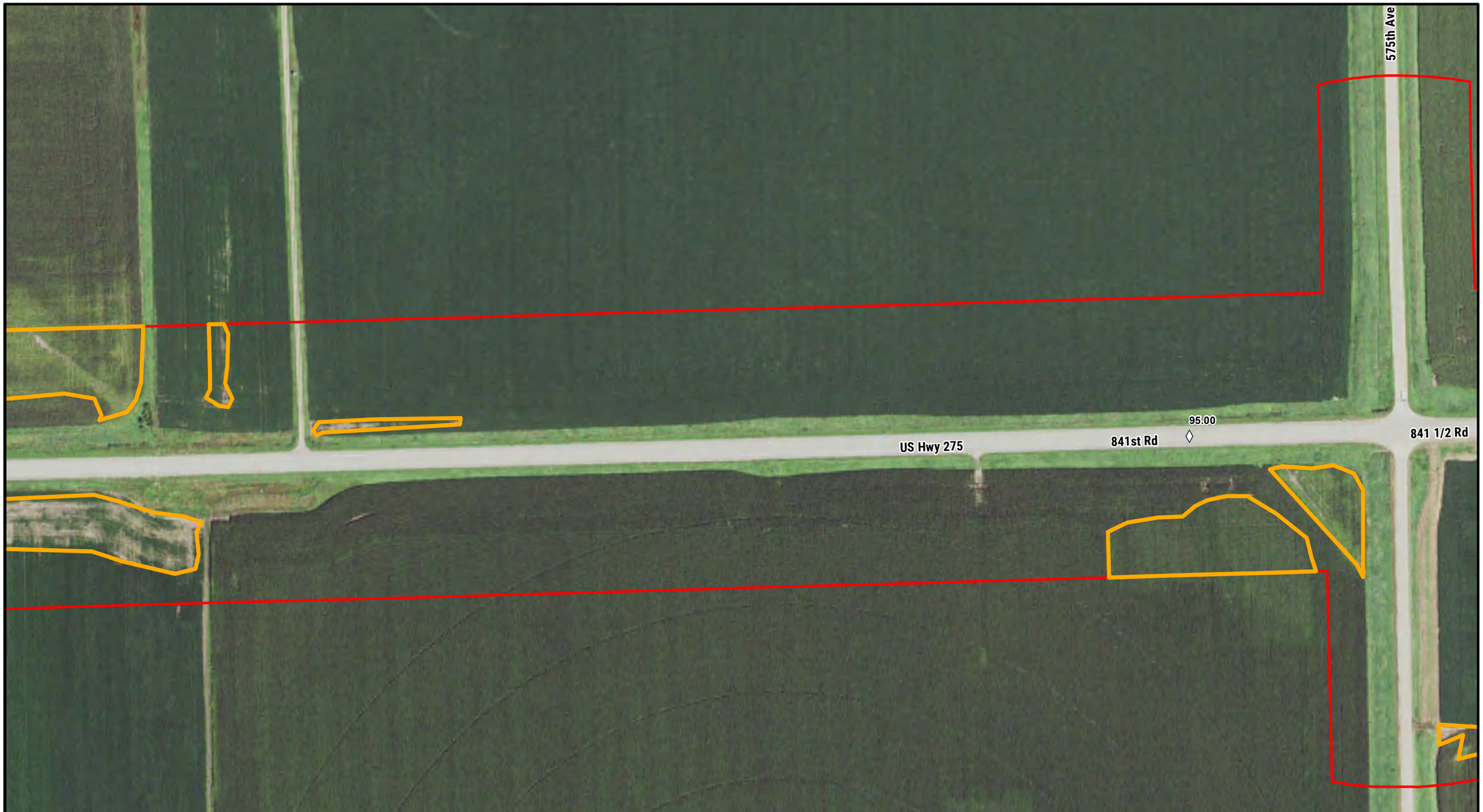
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

575th Ave

US Hwy 275 841 1/2 Rd

841st Rd

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

N

LEGEND

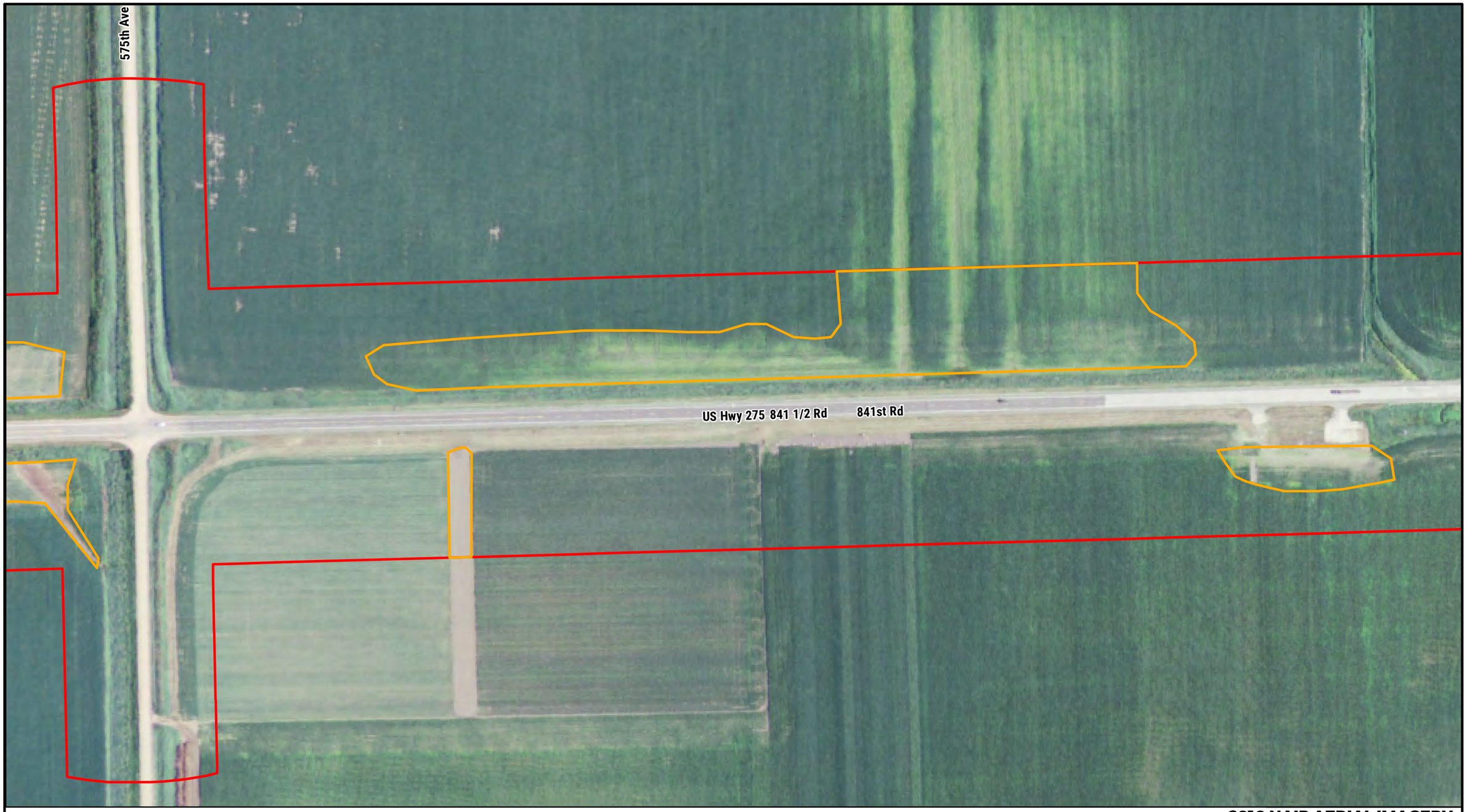
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

575th Ave

US Hwy 275 841 1/2 Rd

841st Rd

NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

Mile
Study
Wet
Village
County

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FEET

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LEGEND

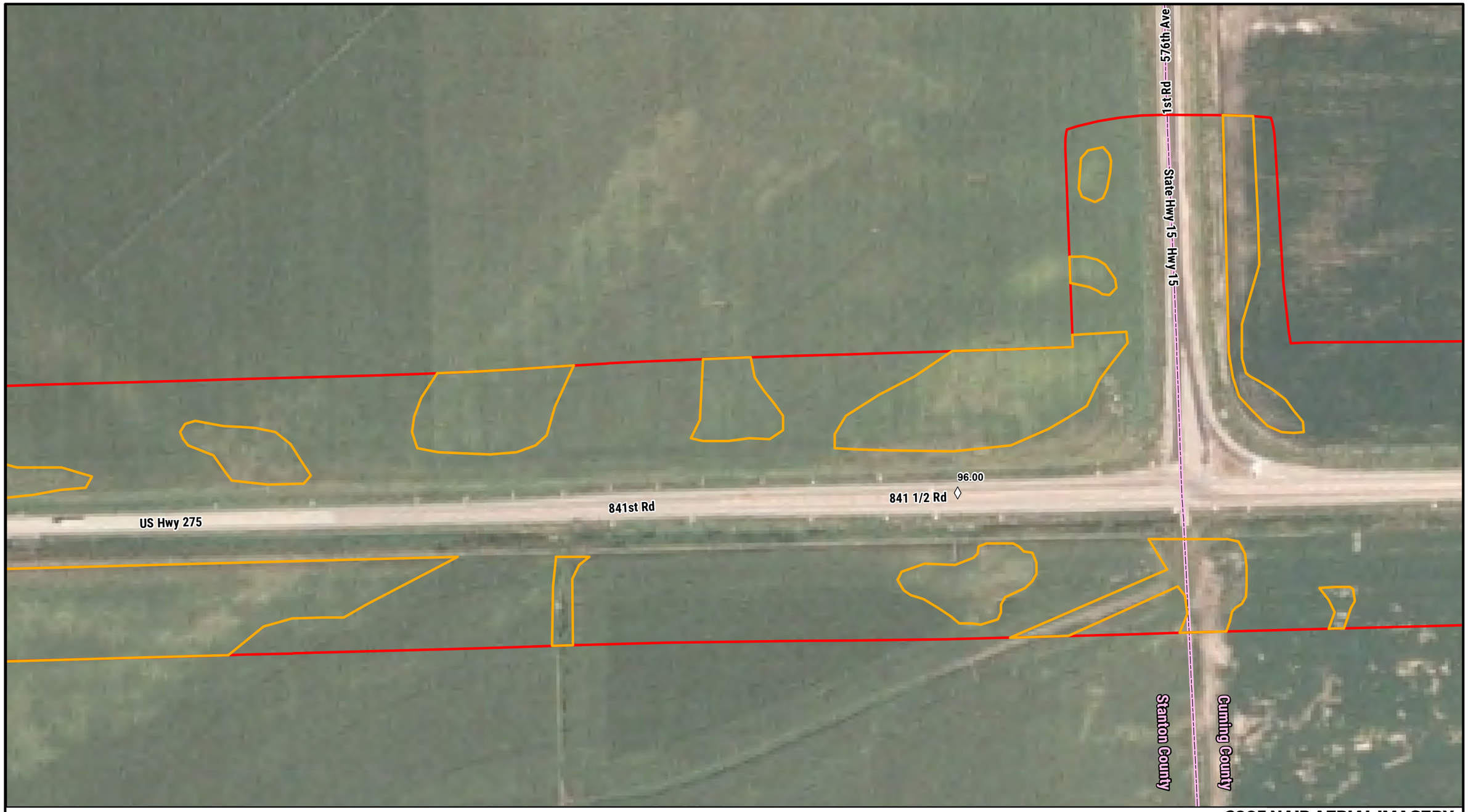
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

N

LEGEND

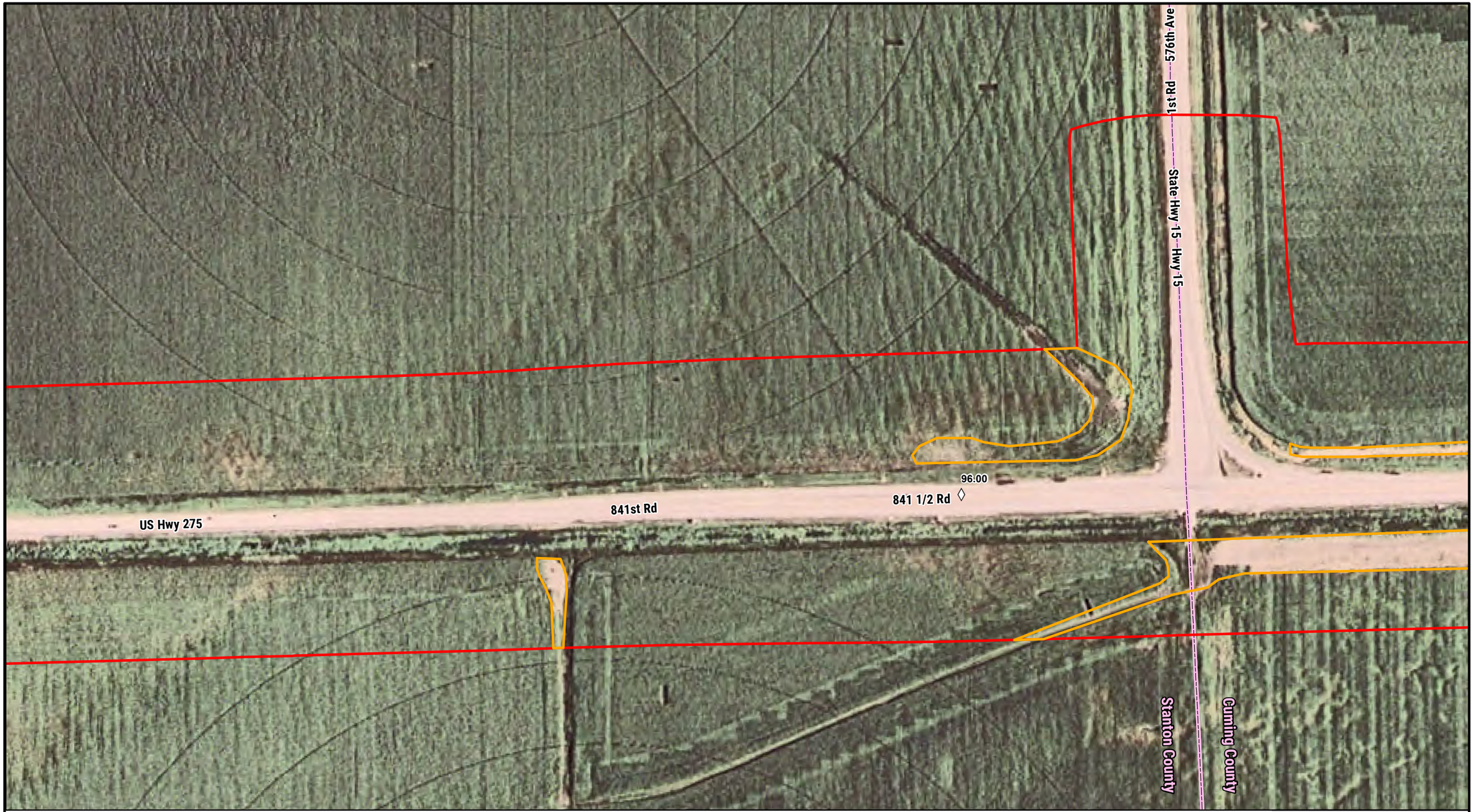
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

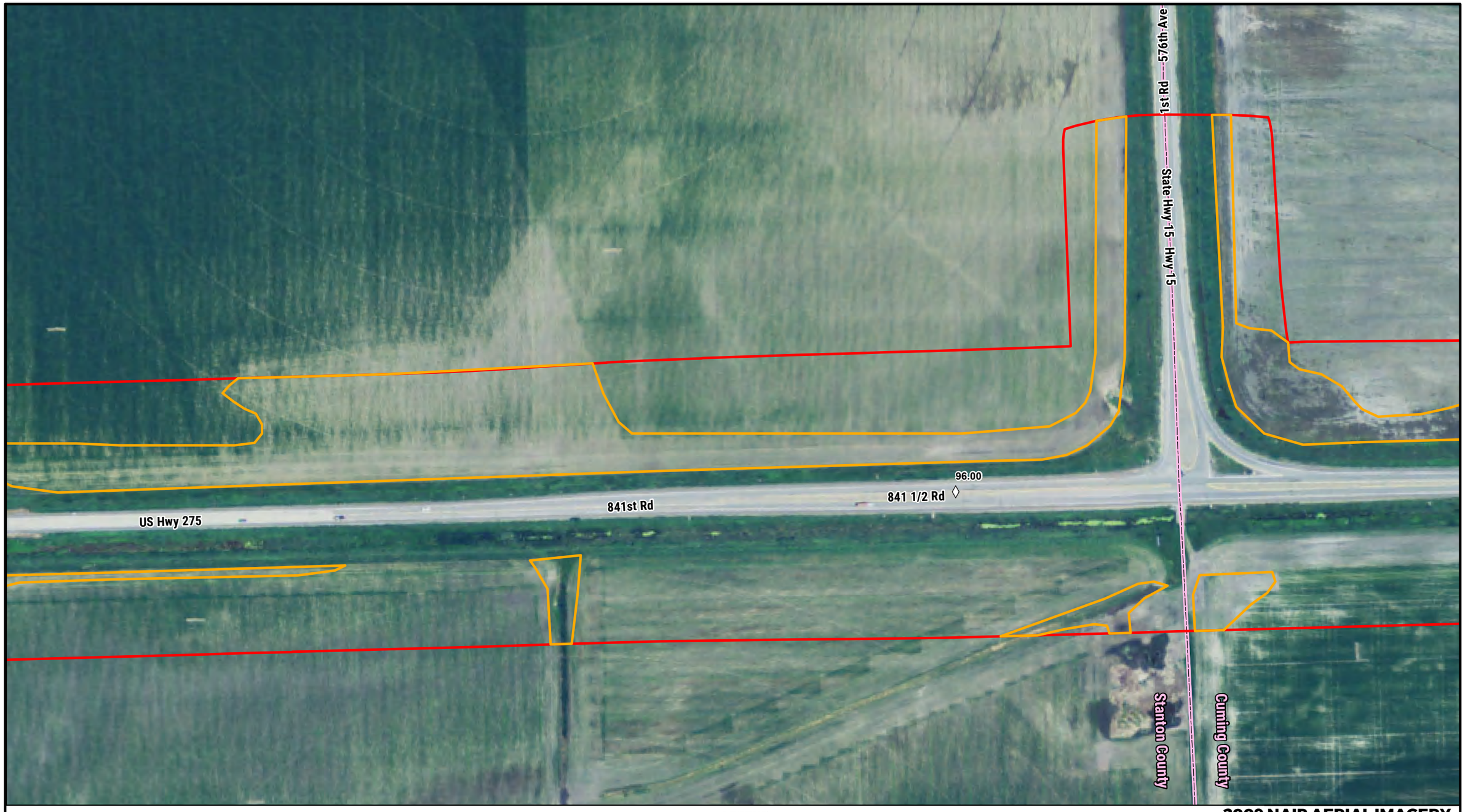
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

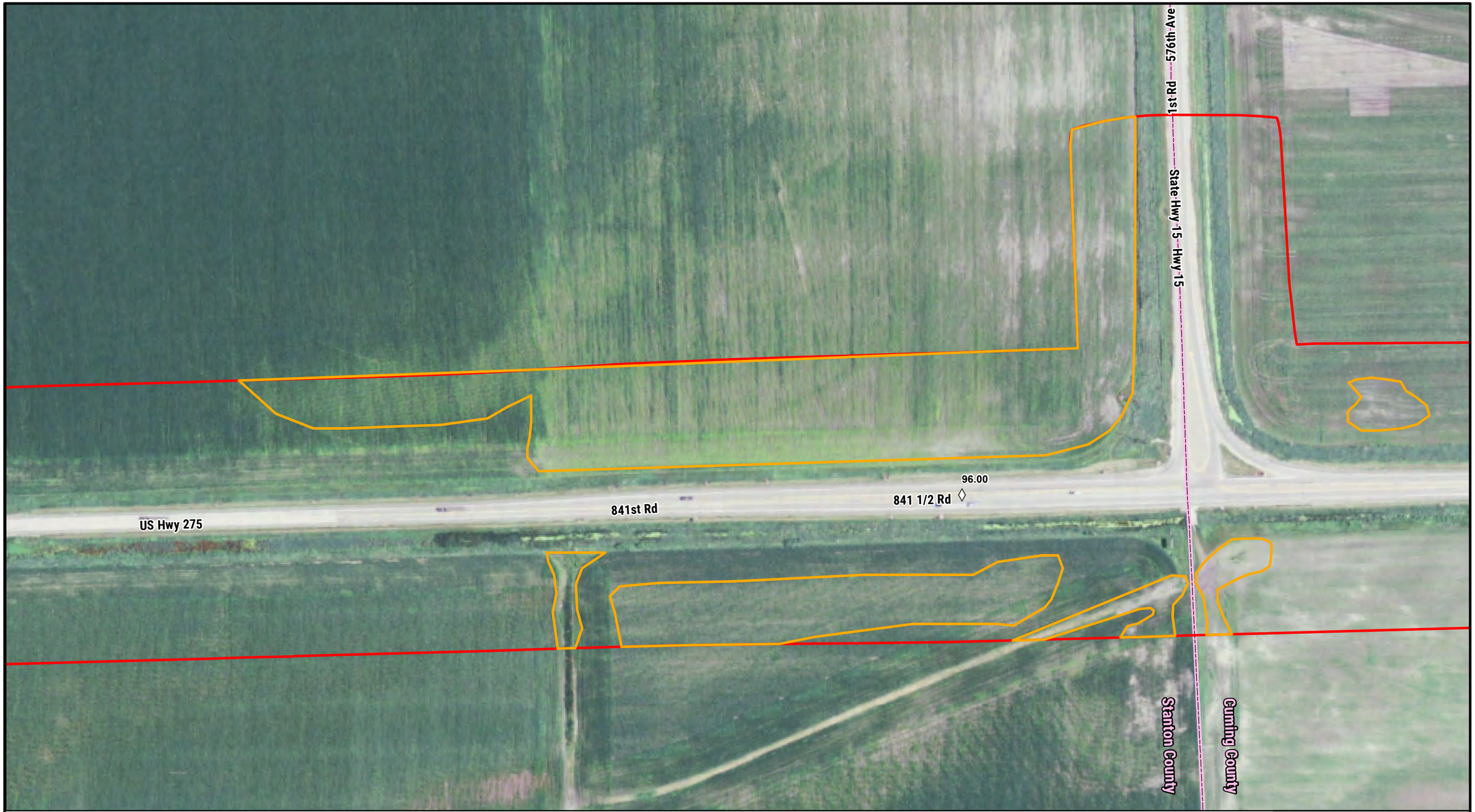
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

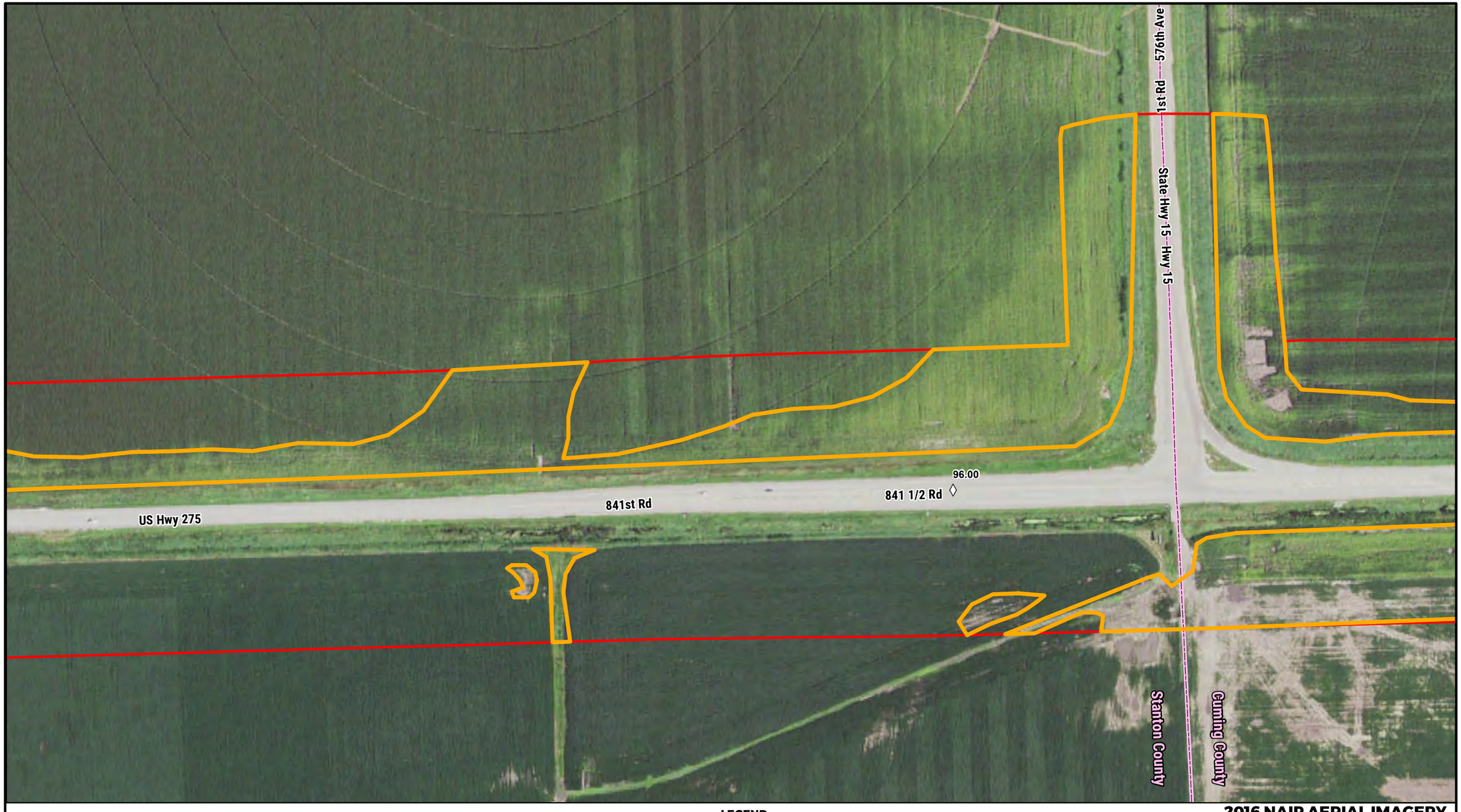
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

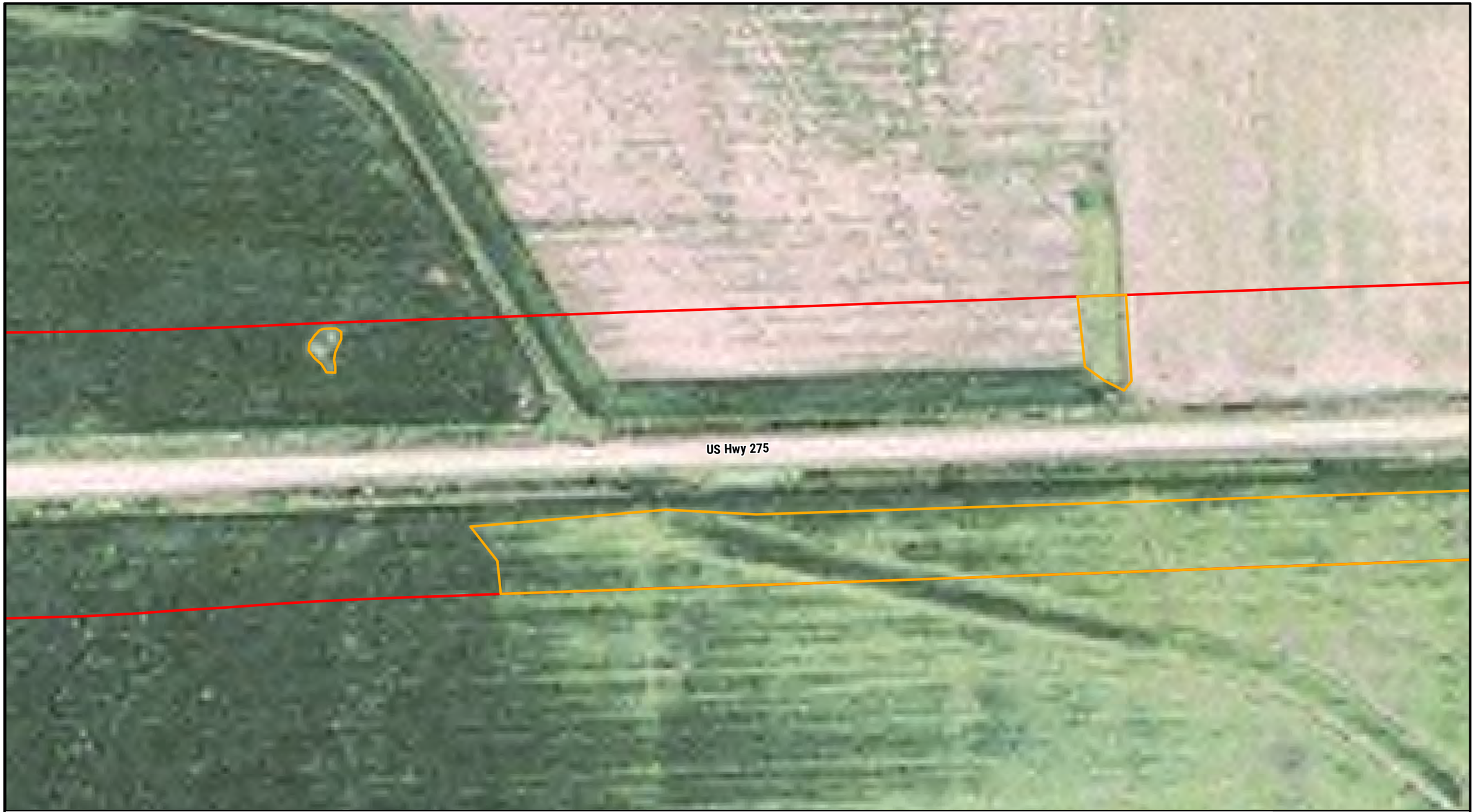
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

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LEGEND

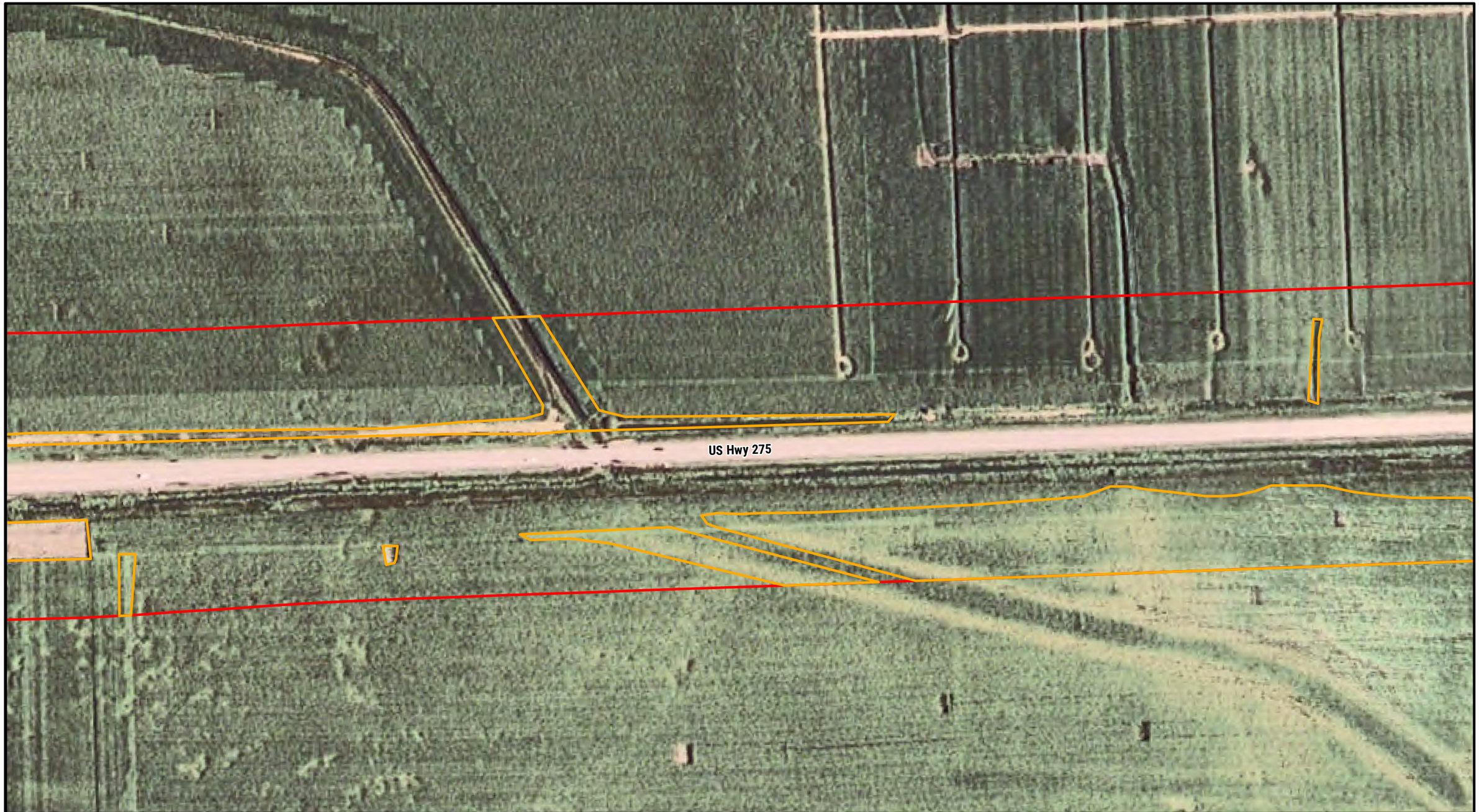
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

Mile Marker
Study Area
Wet Signature
Village Boundary
County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

N

LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

0 100 200
FEET

N

LEGEND

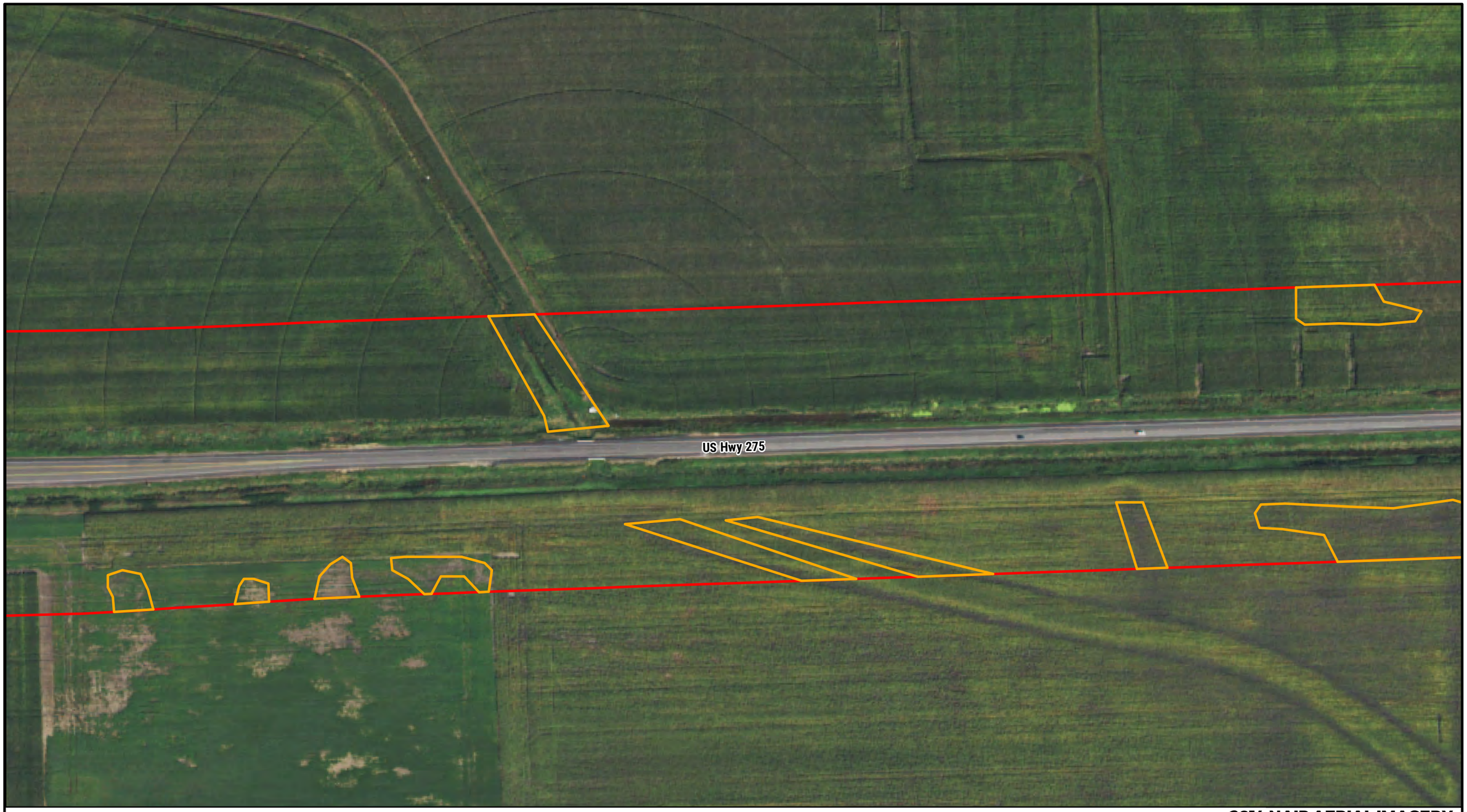
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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Mile Marker
Study Area
Wet Signature
Village Boundary
County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

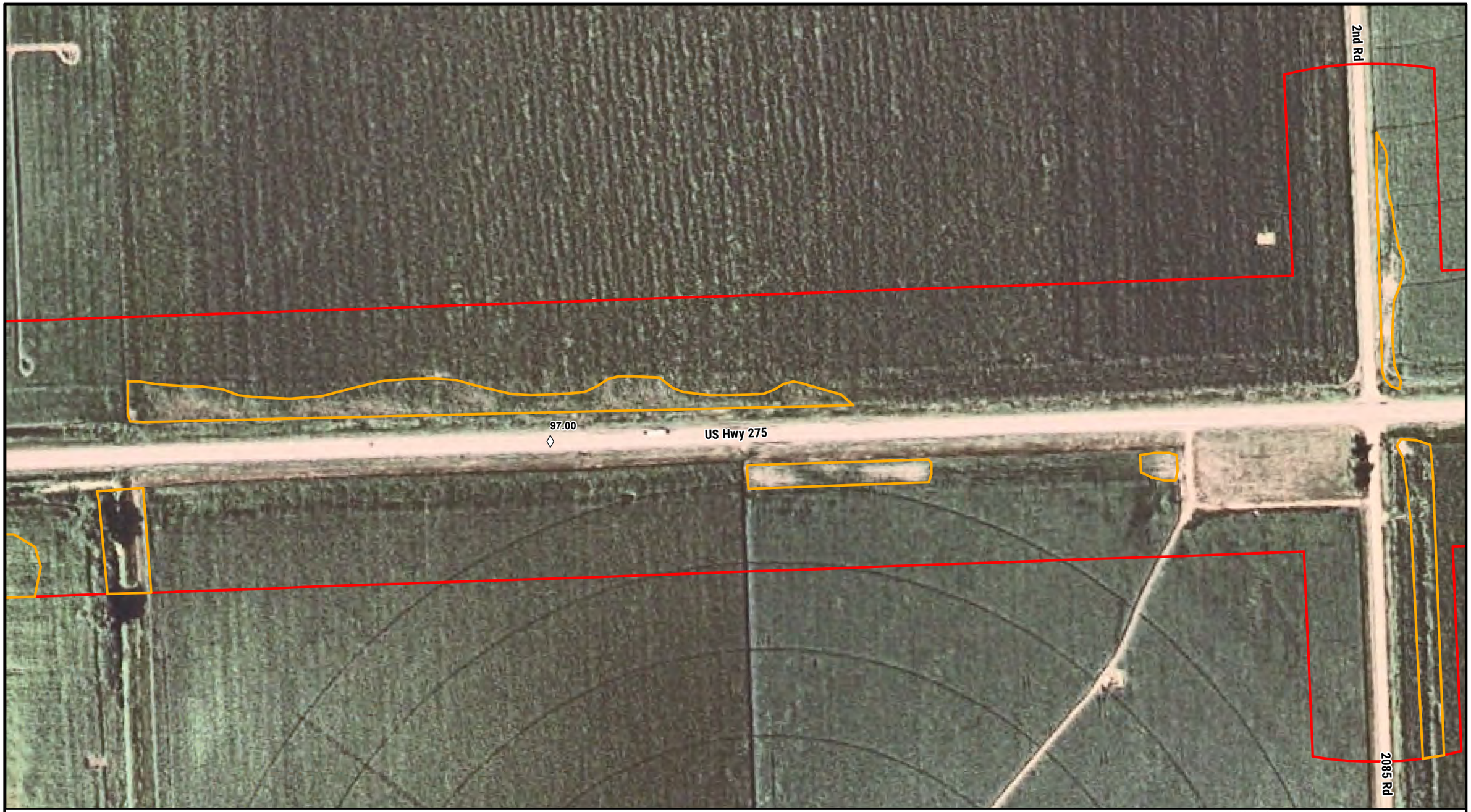
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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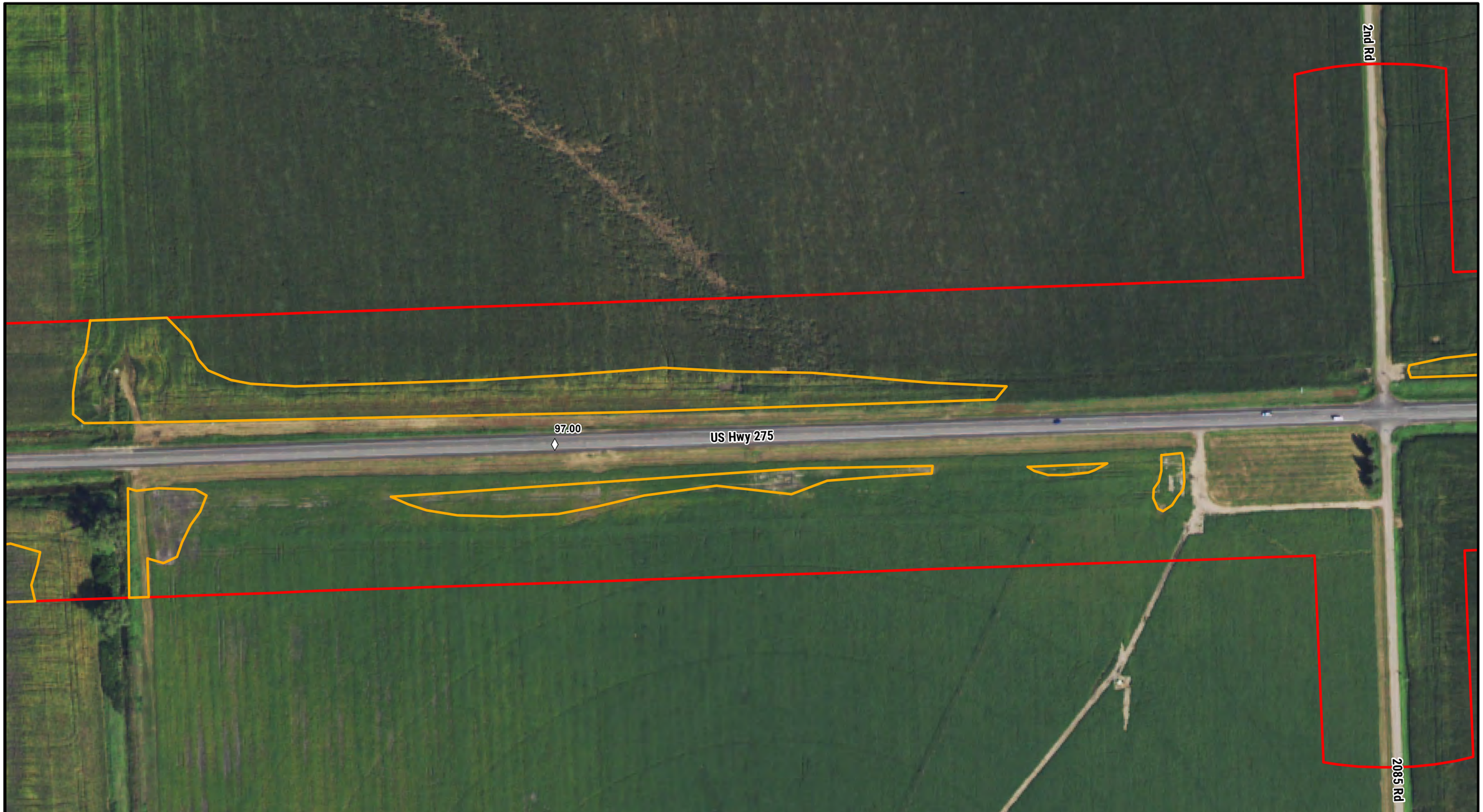
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
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- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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FEET

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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



NEBRASKA
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LEGEND

◊ Mile Marker
Study Area
Wet Signature
Village Boundary
County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FEET

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LEGEND

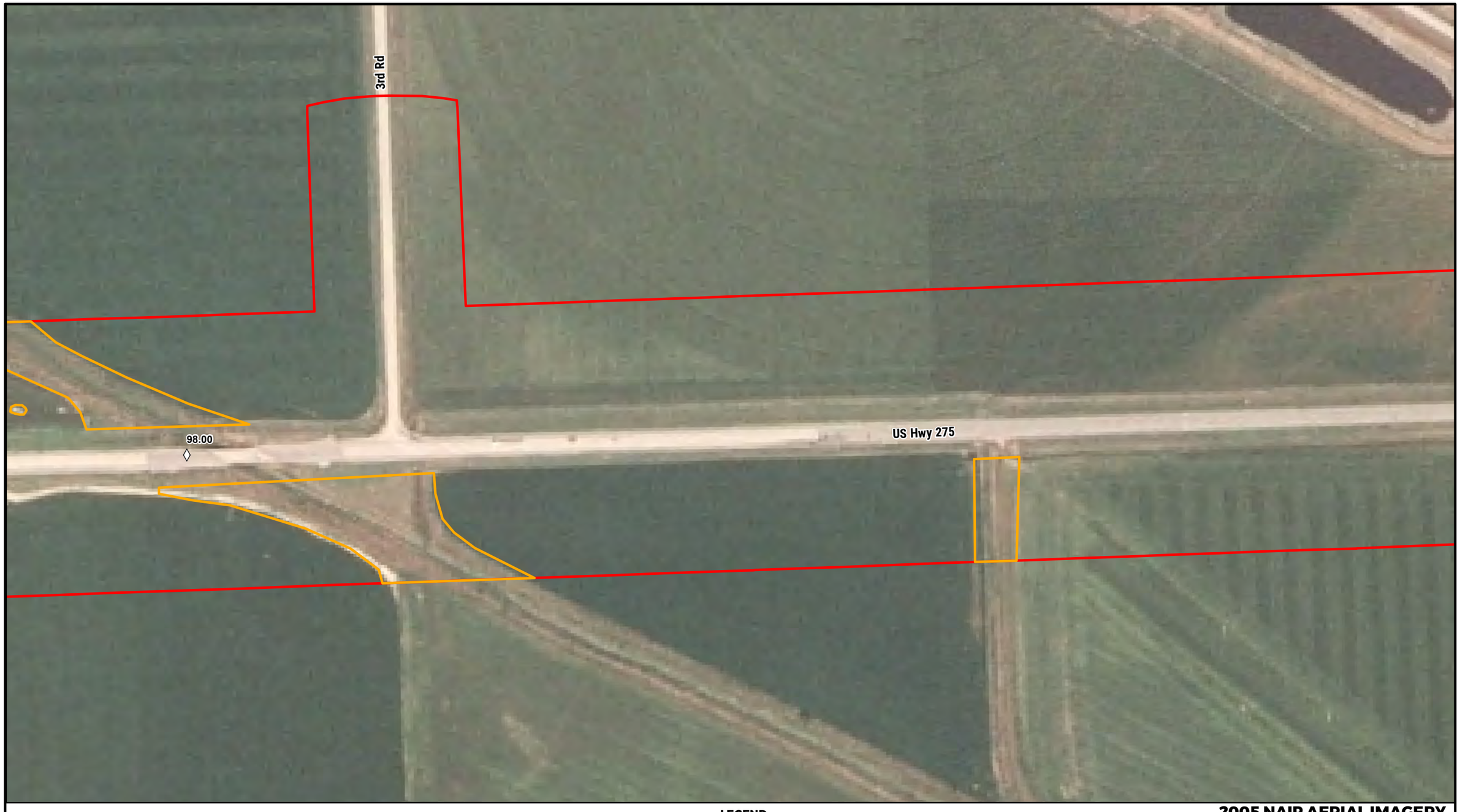
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

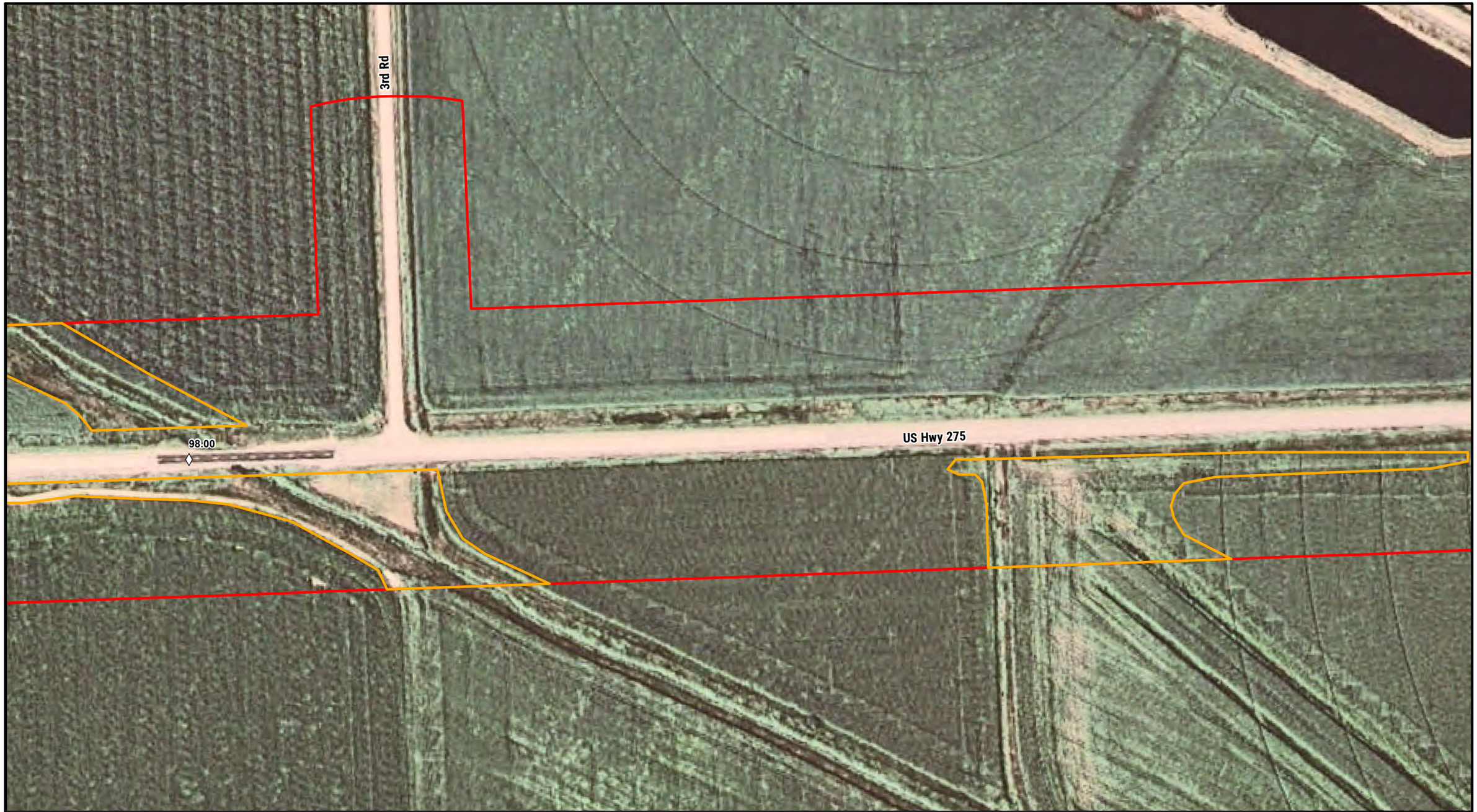
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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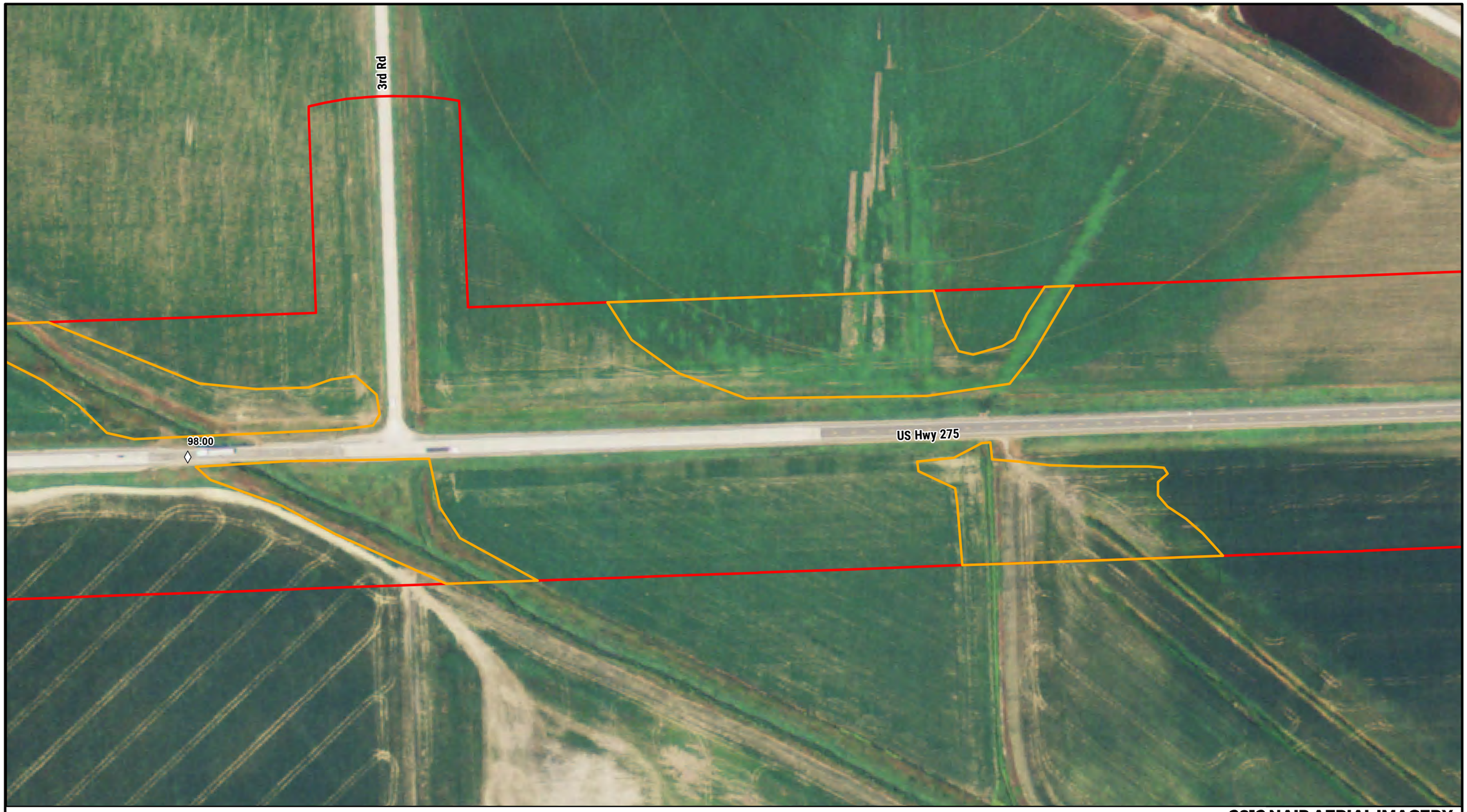
FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

Mile Marker
Study Area
Wet Signature
Village Boundary
County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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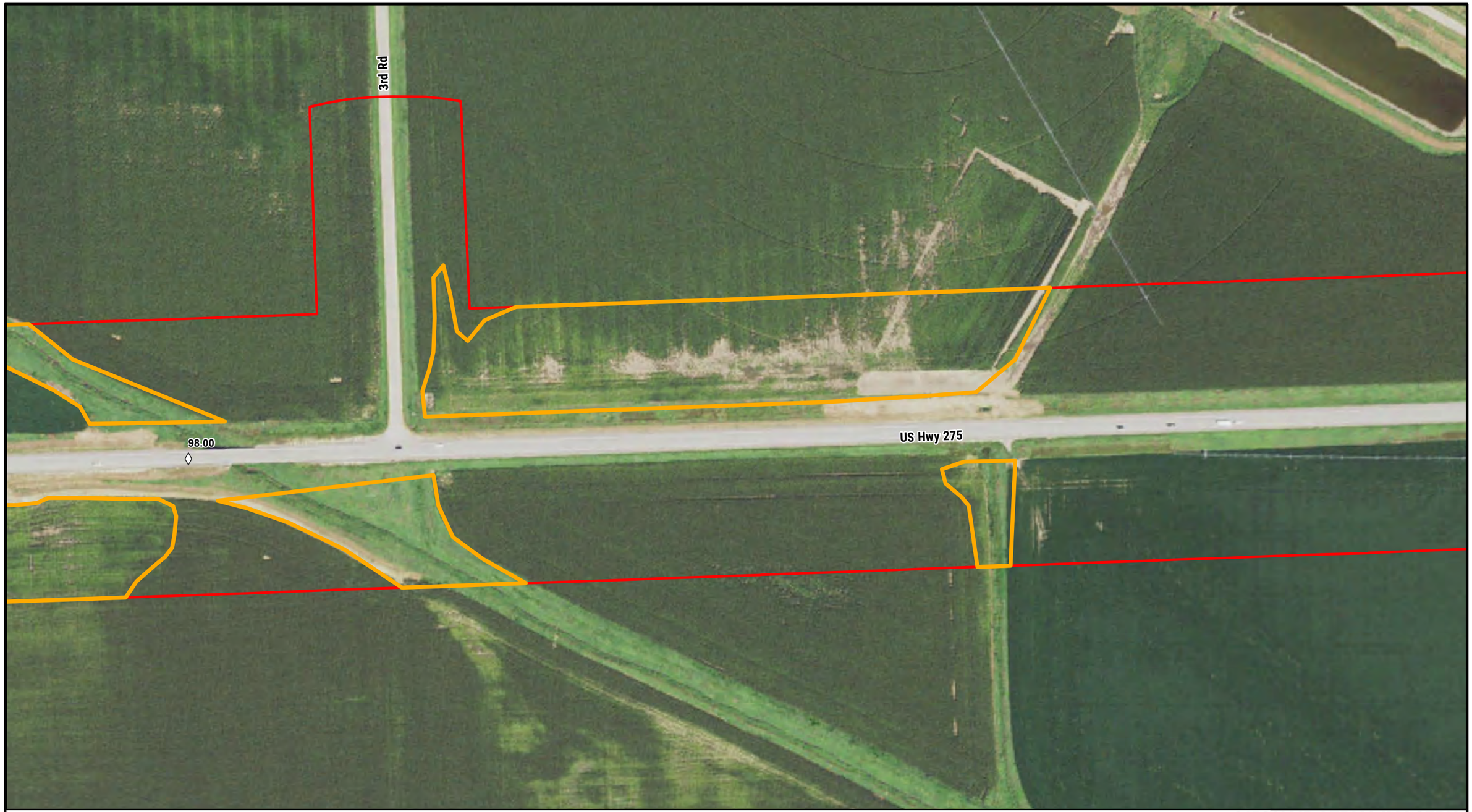
FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

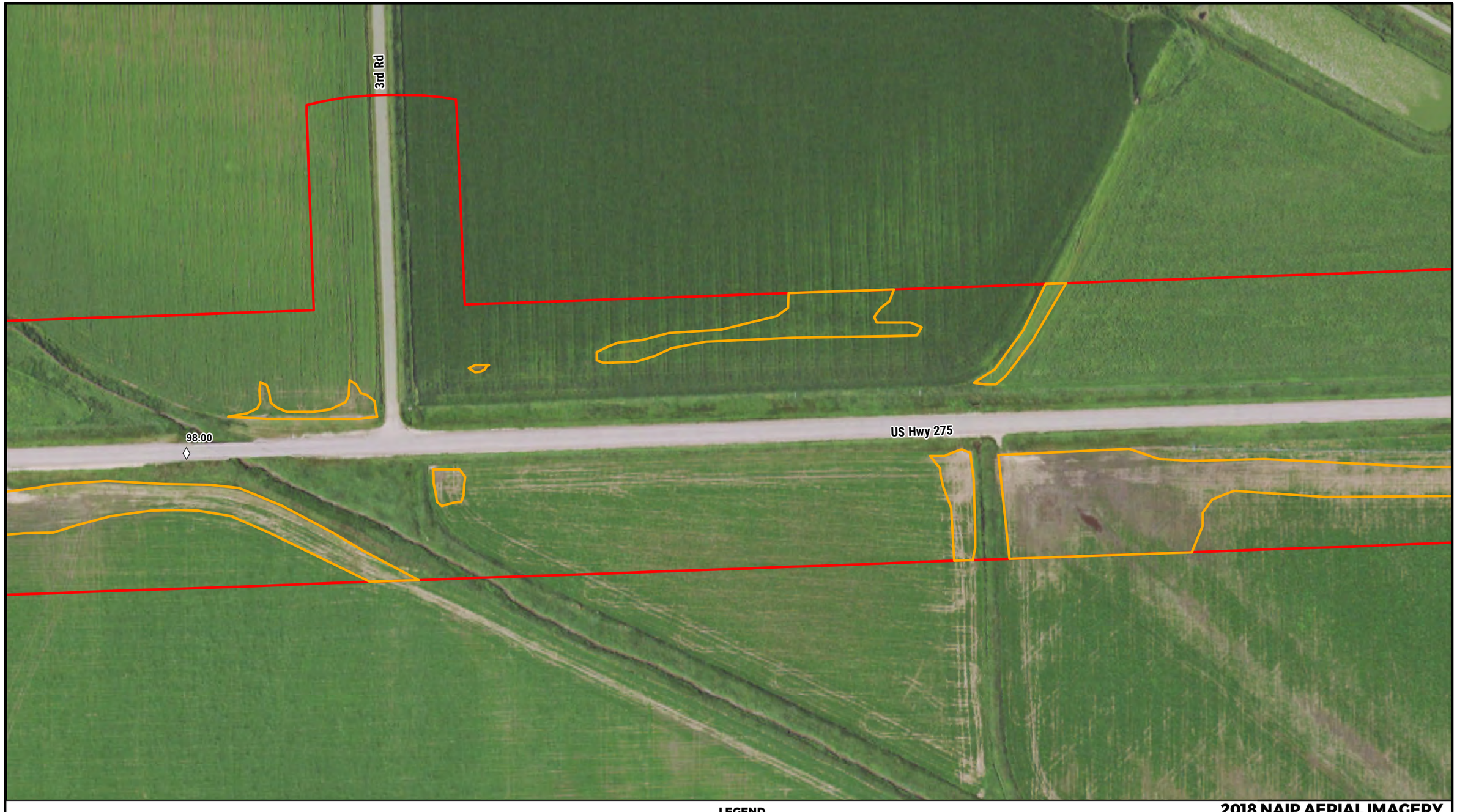
Mile Marker
Study Area
Wet Signature
Village Boundary
County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
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- Village Boundary
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2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
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- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Study Area
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- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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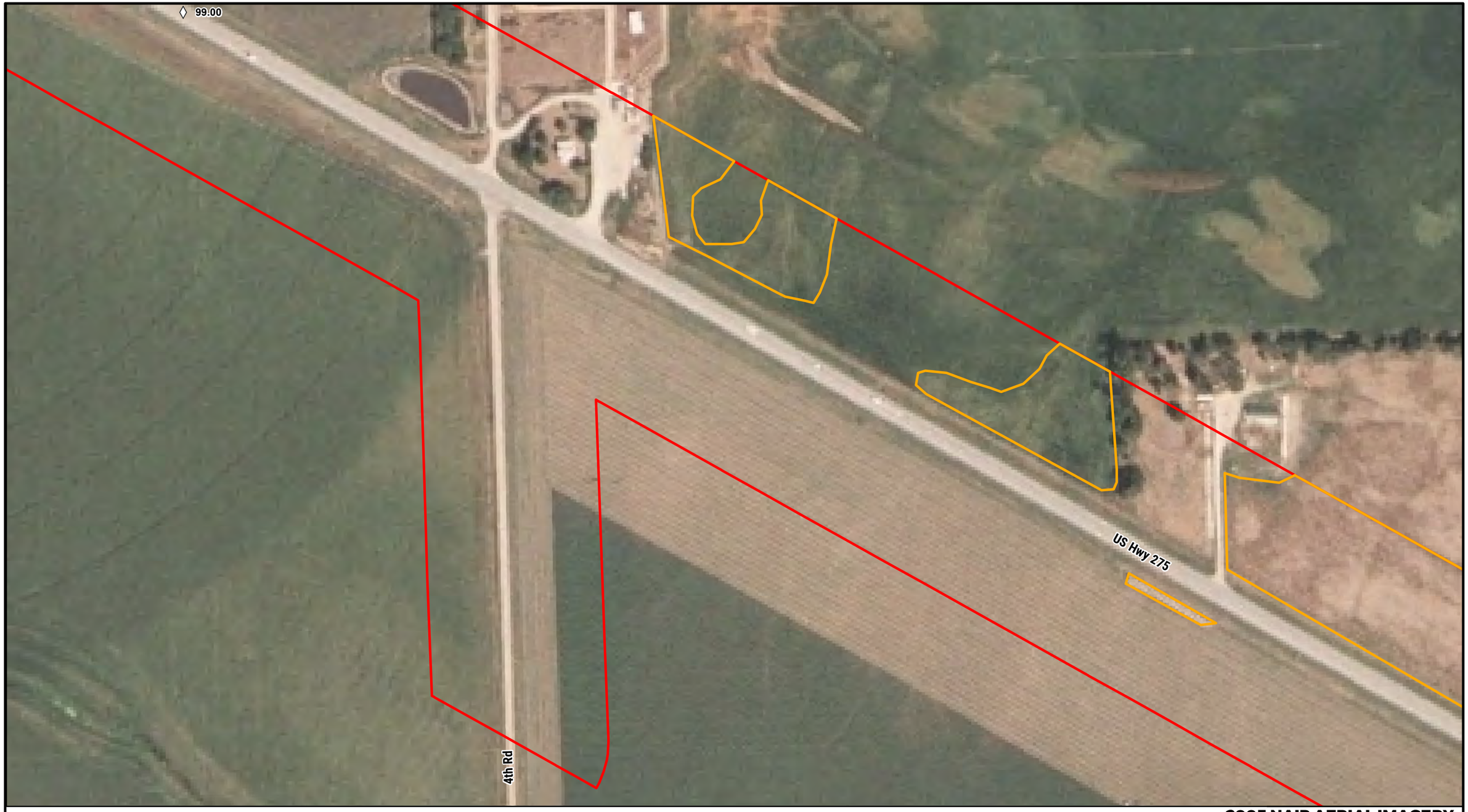
Wet Signature
Village Boundary
County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Study Area
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- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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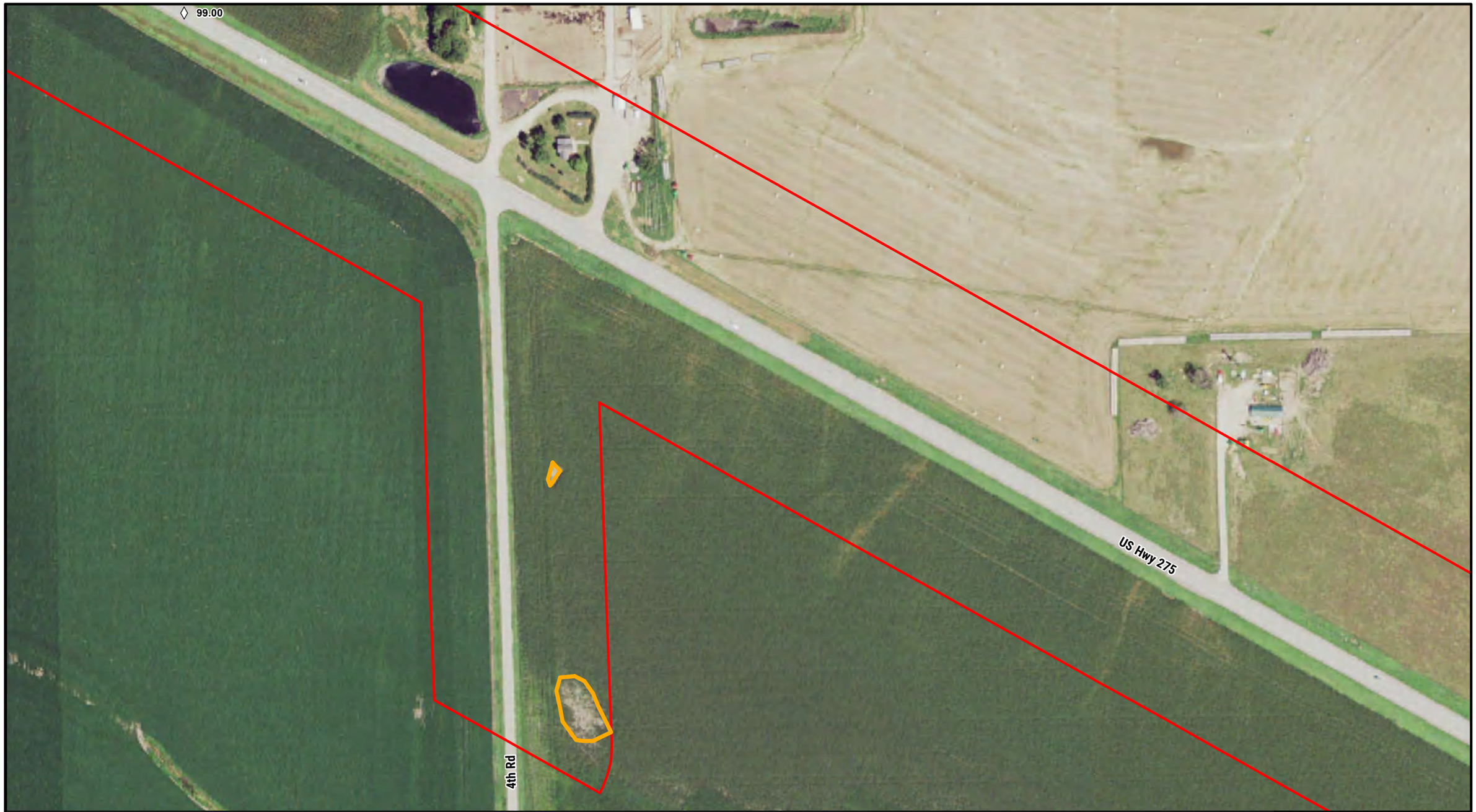
- County Boundary
- Study Area
- Village Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Wet Signature
- Village Boundary
- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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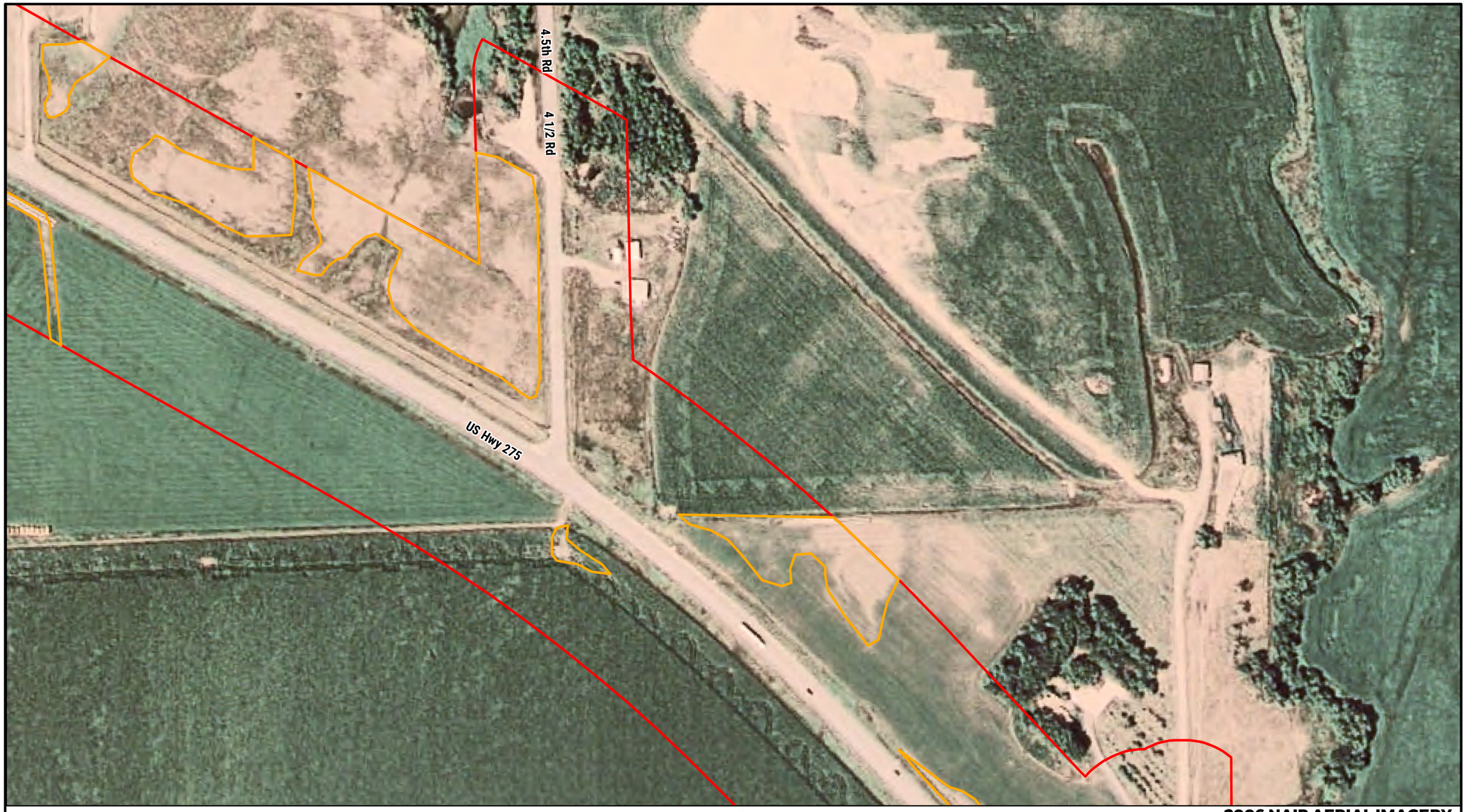
- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Study Area
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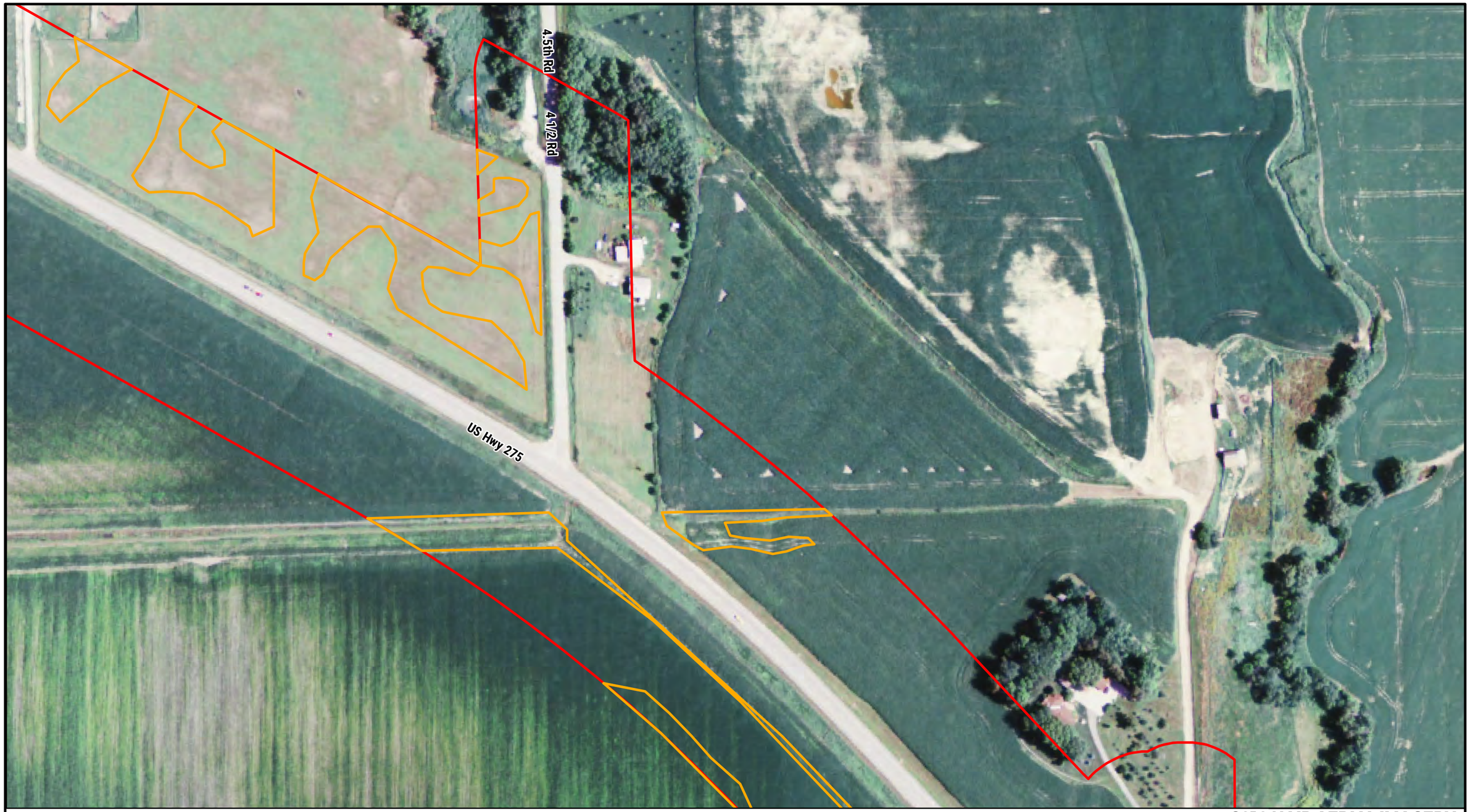
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Study Area
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- Village Boundary
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2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Study Area
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- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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Village Boundary
County Boundary

2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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Wet Signature
County Boundary
Study Area
Village Boundary

2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- County Boundary

2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
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- Village Boundary
- County Boundary

2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
- County Boundary

2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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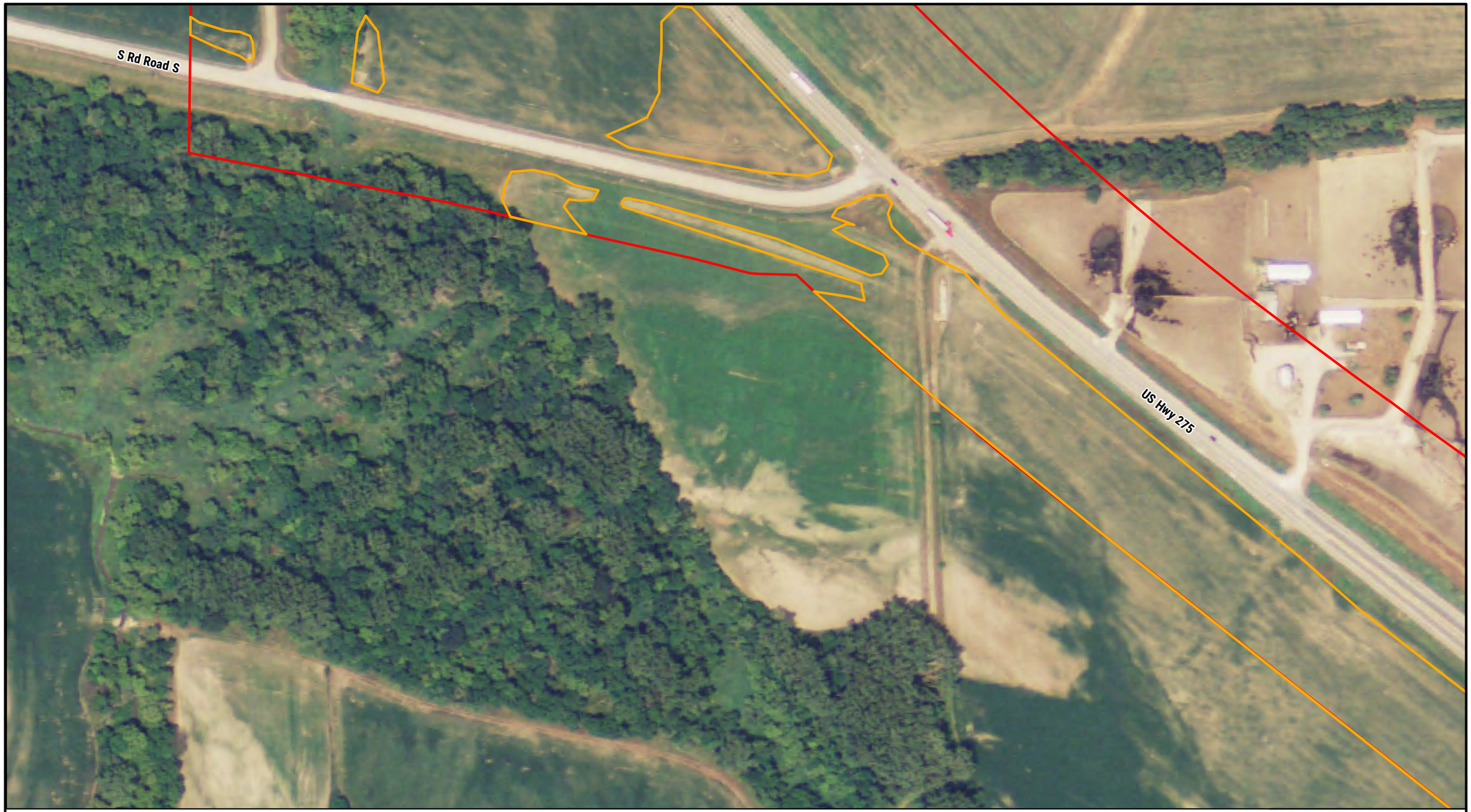
FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
- County Boundary

2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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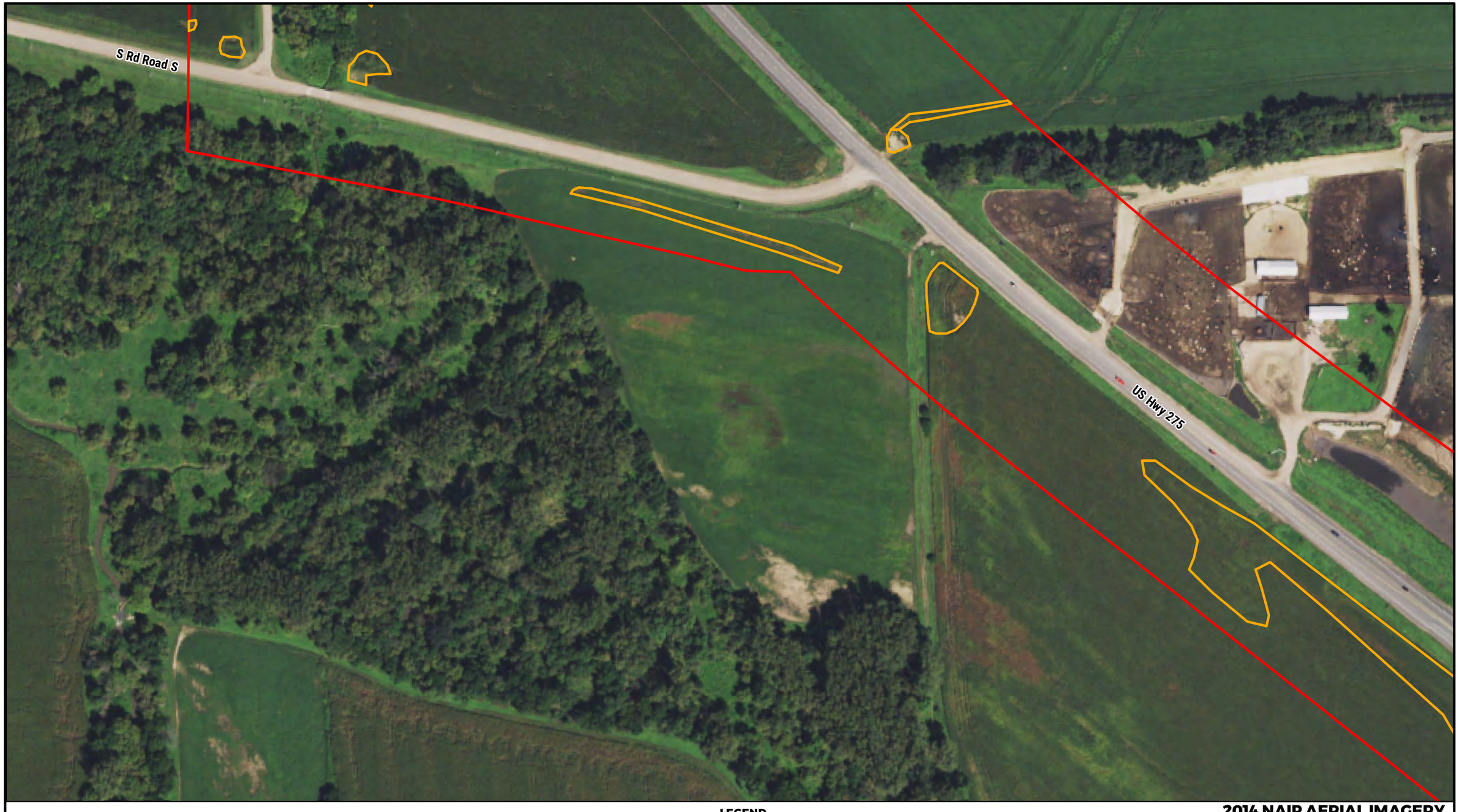
FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Village Boundary
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2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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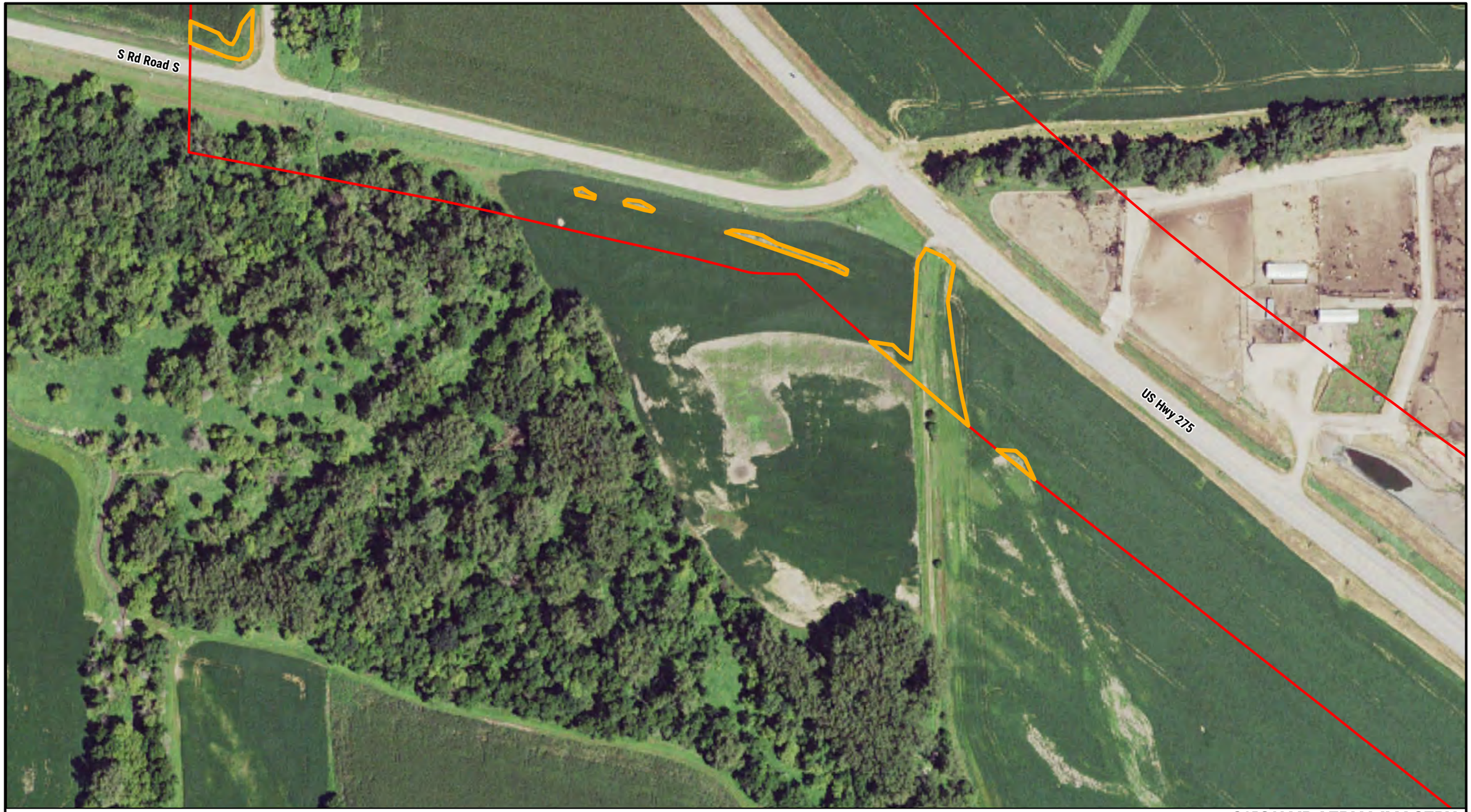
FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Wet Signature
- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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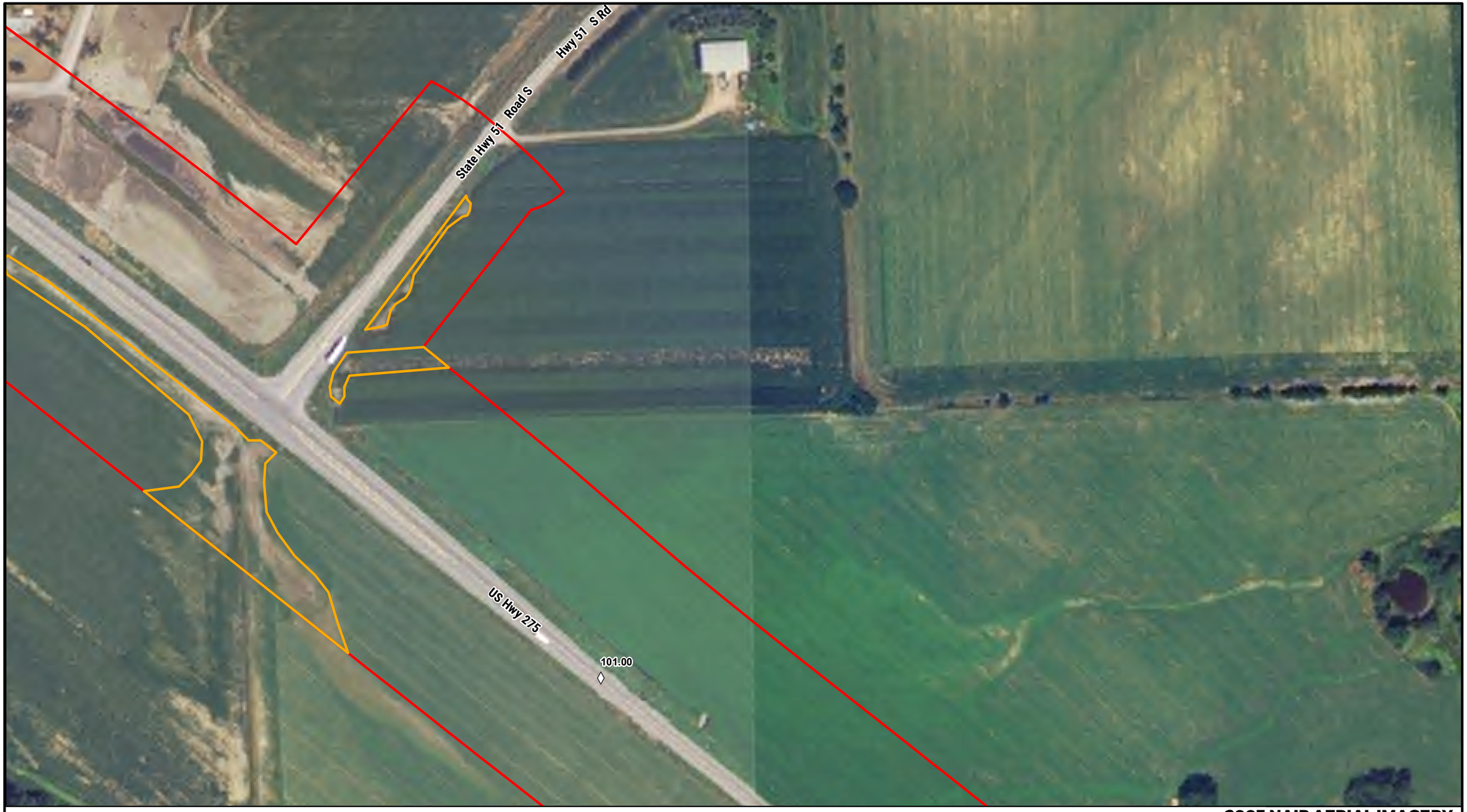
FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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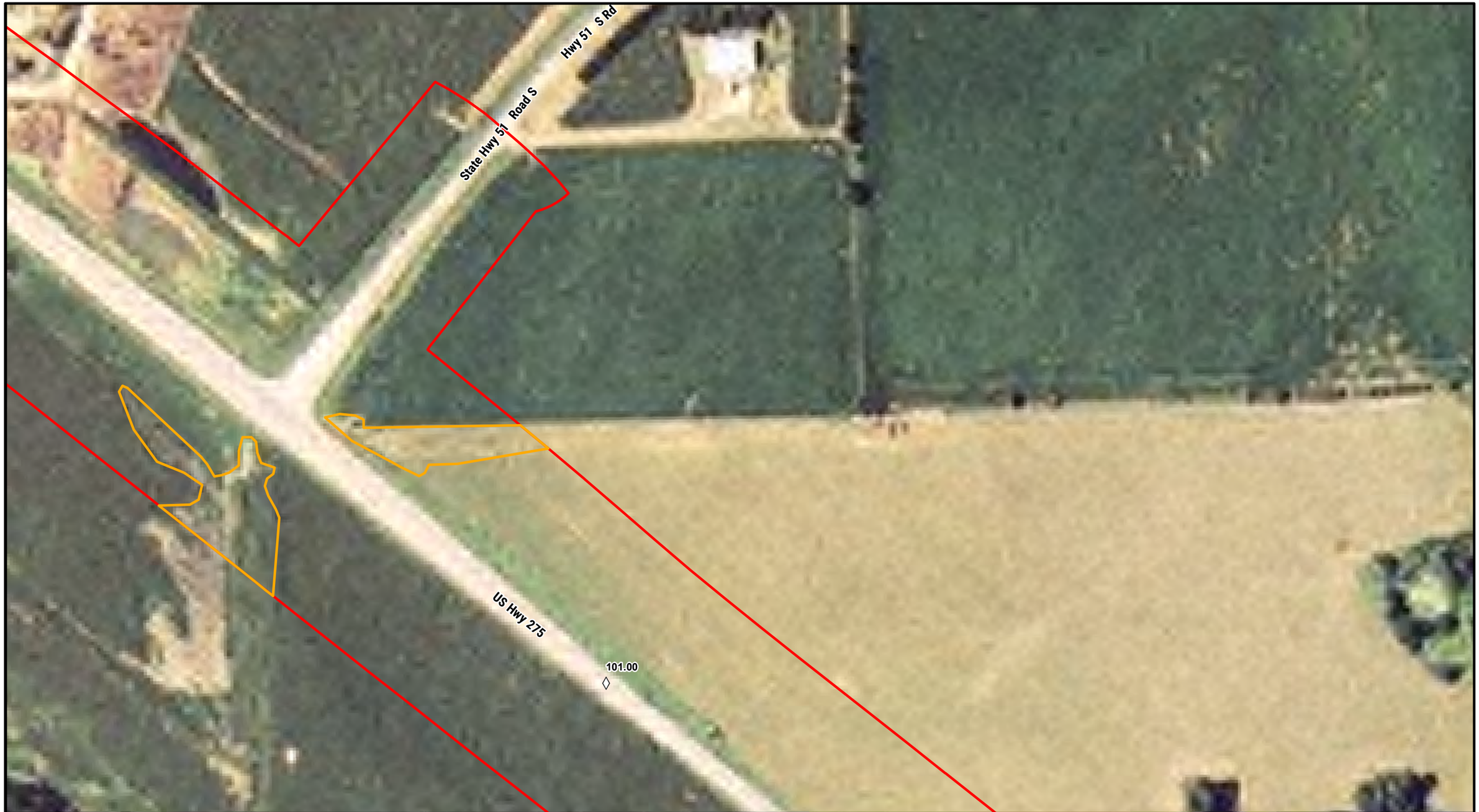
2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Study Area
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- Village Boundary
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2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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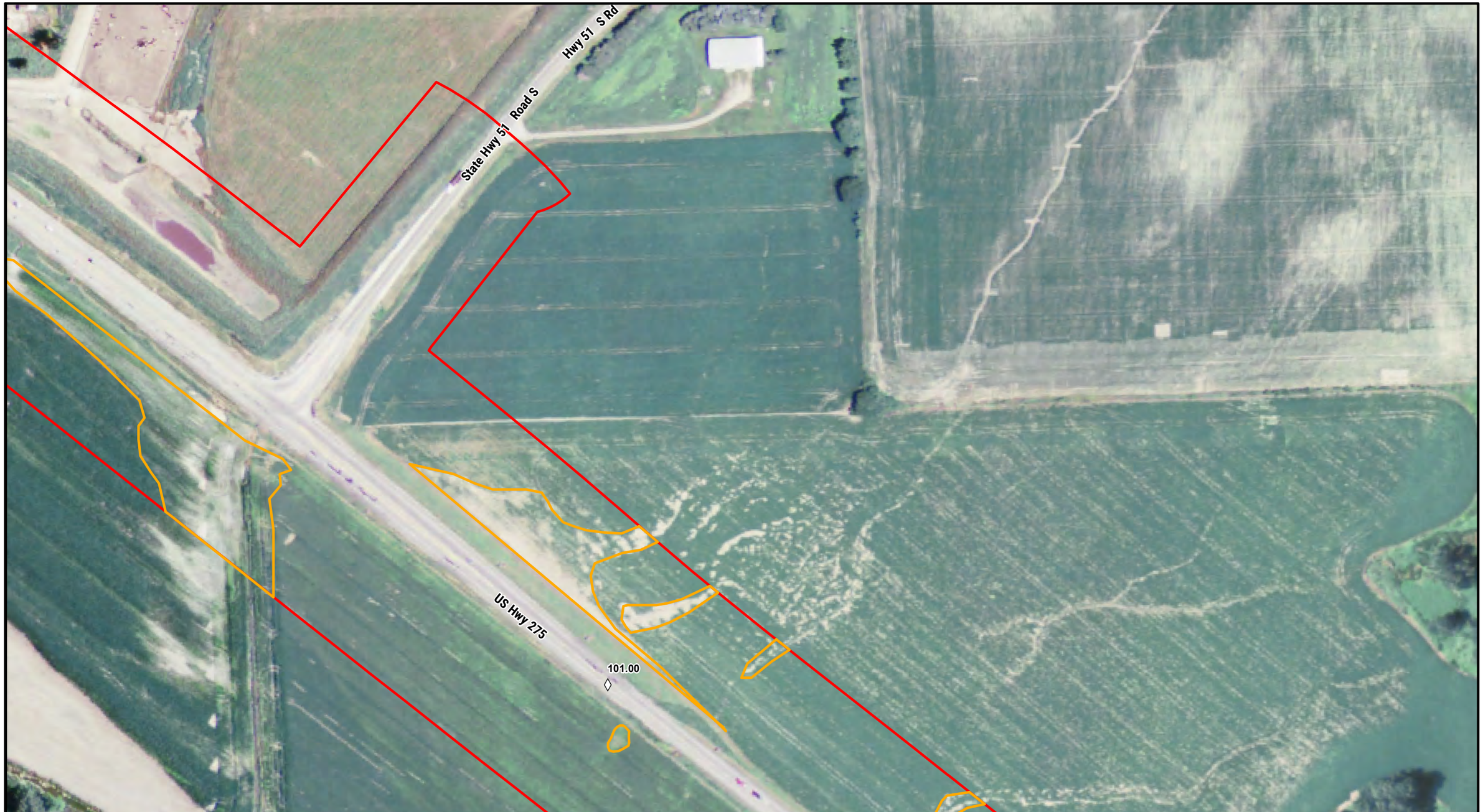
FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
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- County Boundary

2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

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- Study Area
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- Village Boundary
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2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
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- Village Boundary
- County Boundary

2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
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2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
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2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

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- Study Area
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2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
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FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

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Study Area
Wet Signature
Village Boundary
County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2010 NAIP AERIAL IMAGERY

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FIGURE 4-8

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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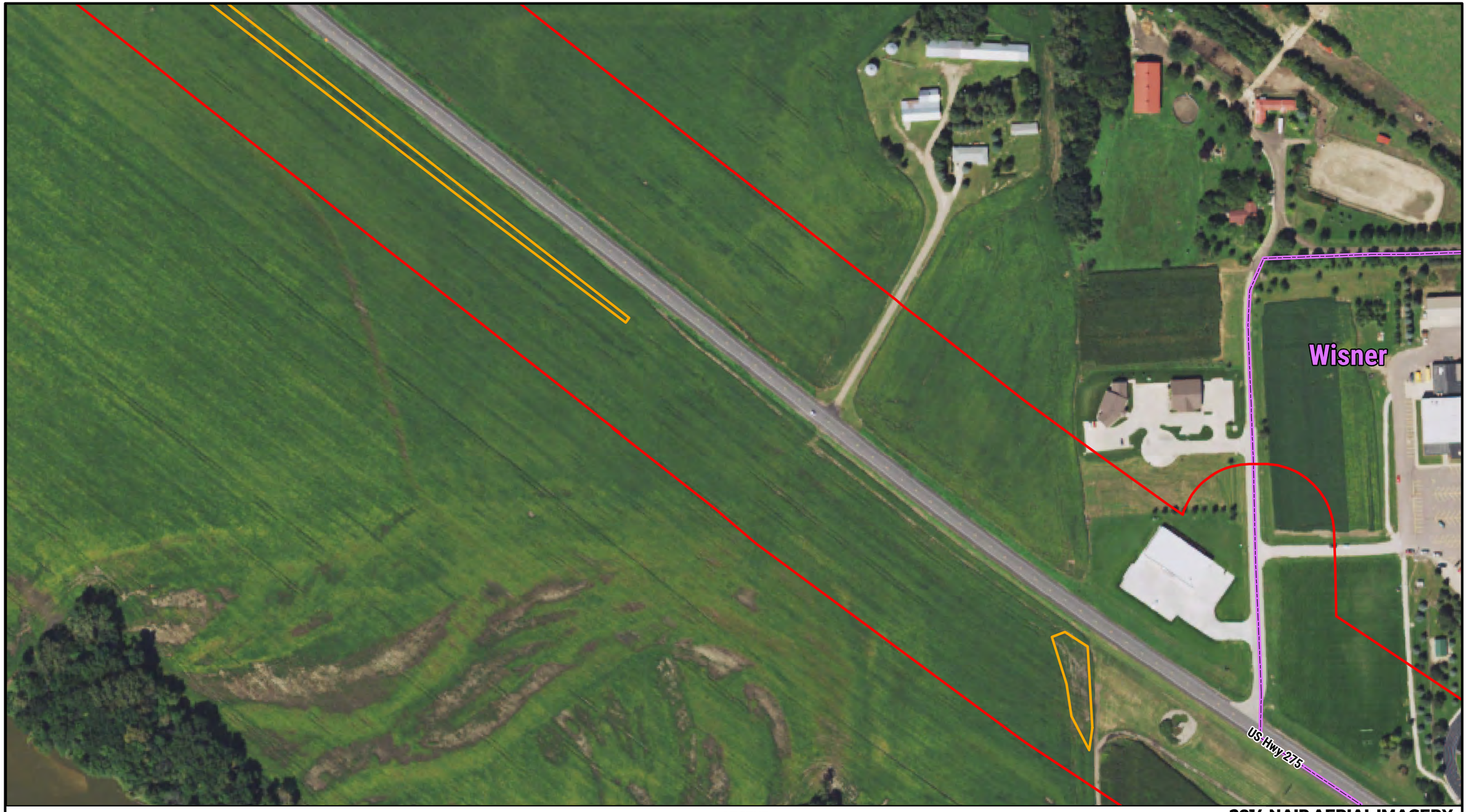
FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2016 NAIP AERIAL IMAGERY

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FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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Study Area
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2018 NAIP AERIAL IMAGERY

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FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2003 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2004 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-3

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2005 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-4

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2006 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-5

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2007 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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CONTROL NO. 32319

FIGURE 4-6

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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LEGEND

- Mile Marker
- Study Area
- Wet Signature
- Village Boundary
- County Boundary

2009 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-7

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- ◊ Mile Marker
- Study Area
- Wet Signature
- Village Boundary
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2010 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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CONTROL NO. 32319

FIGURE 4-8

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- Wet Signature
- Village Boundary
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2012 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-9

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Mile Marker
- Study Area
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- Village Boundary
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2014 NAIP AERIAL IMAGERY

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

FIGURE 4-10

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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- Wet Signature
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2016 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-11

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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2018 NAIP AERIAL IMAGERY

NORFOLK - WISNER
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FIGURE 4-12

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

2019 Wetlands in Agricultural Setting Determinations

566 Ave

Hwy 275

86.00

US Hwy 275

841st Rd

State Hwy 57 Oak St

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2019 AGRICULTURAL WETLAND DETERMINATION

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FIGURE 4-13

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FIGURE 4-13

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FIGURE 4-13

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

568 Ave

88.00

Hwy 275 US Hwy 275

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FIGURE 4-13

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

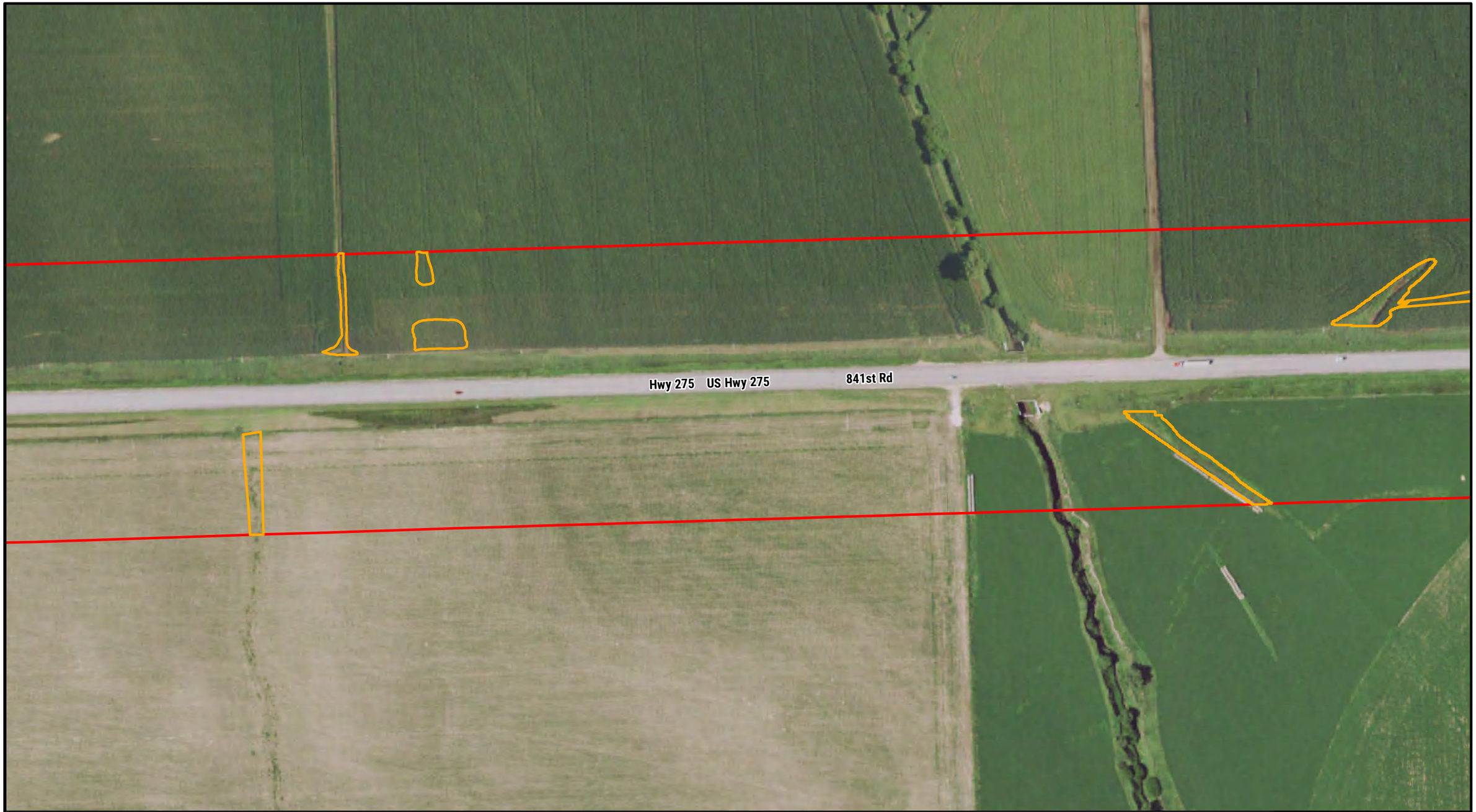

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FIGURE 4-13

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

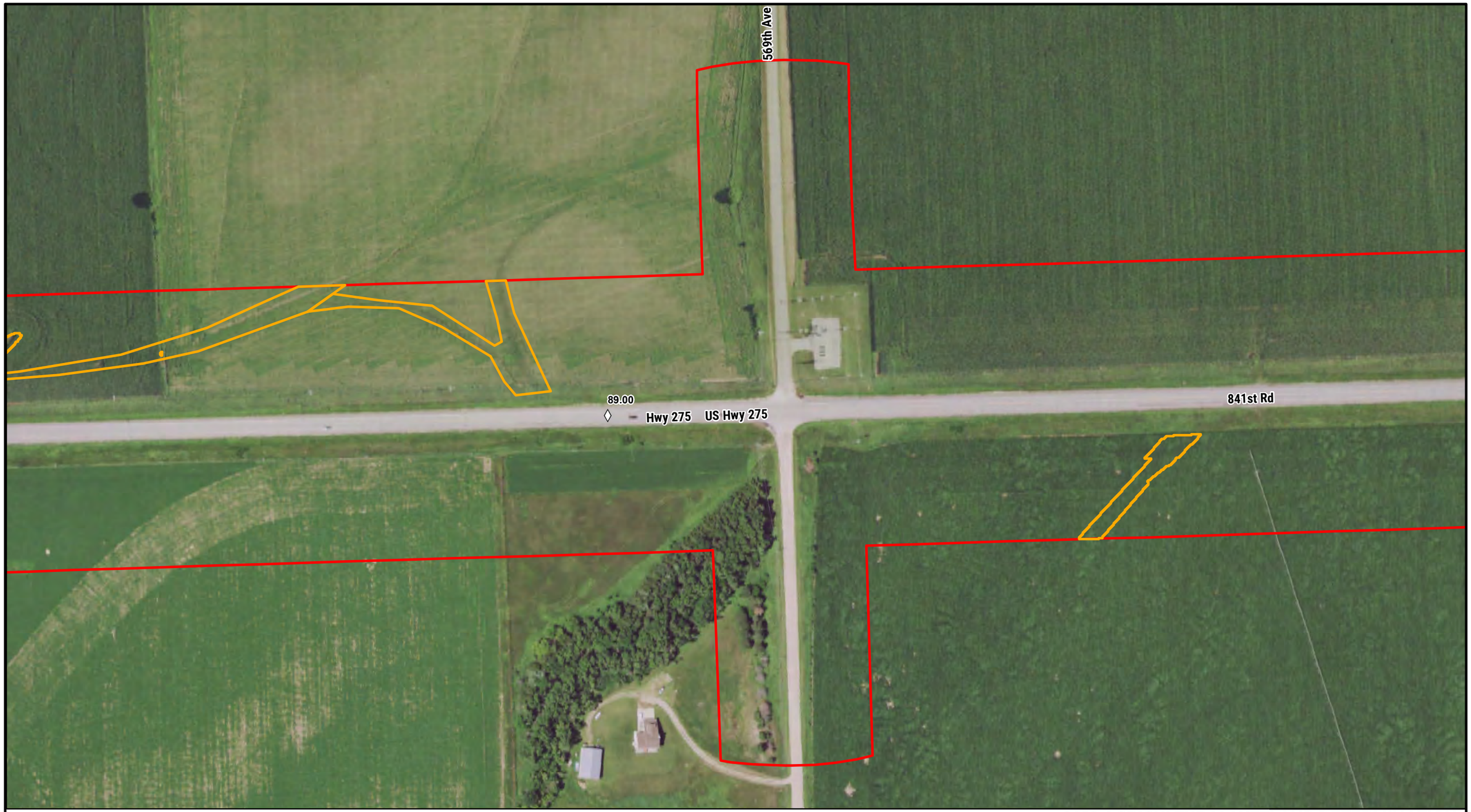

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FIGURE 4-13

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

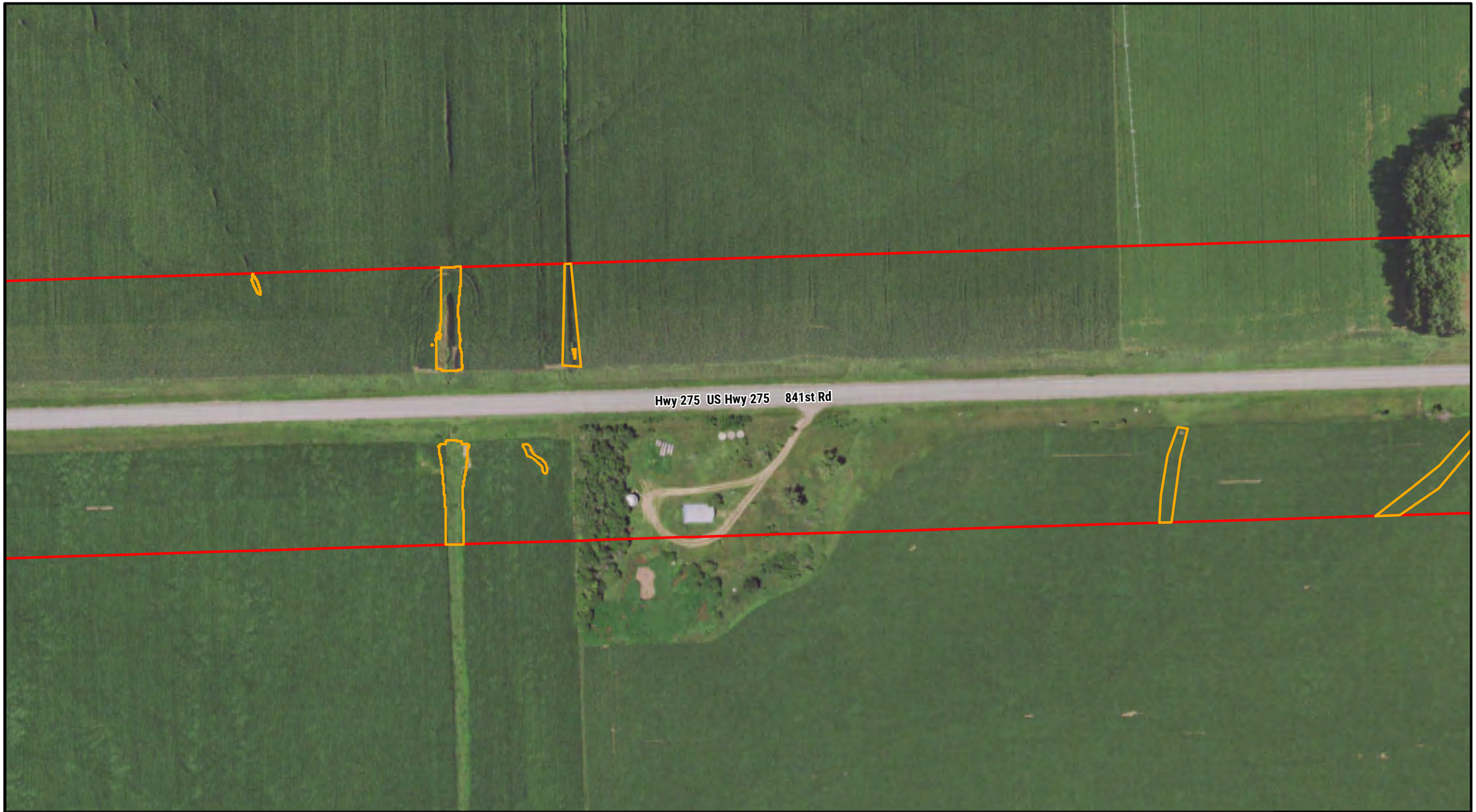

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FIGURE 4-13

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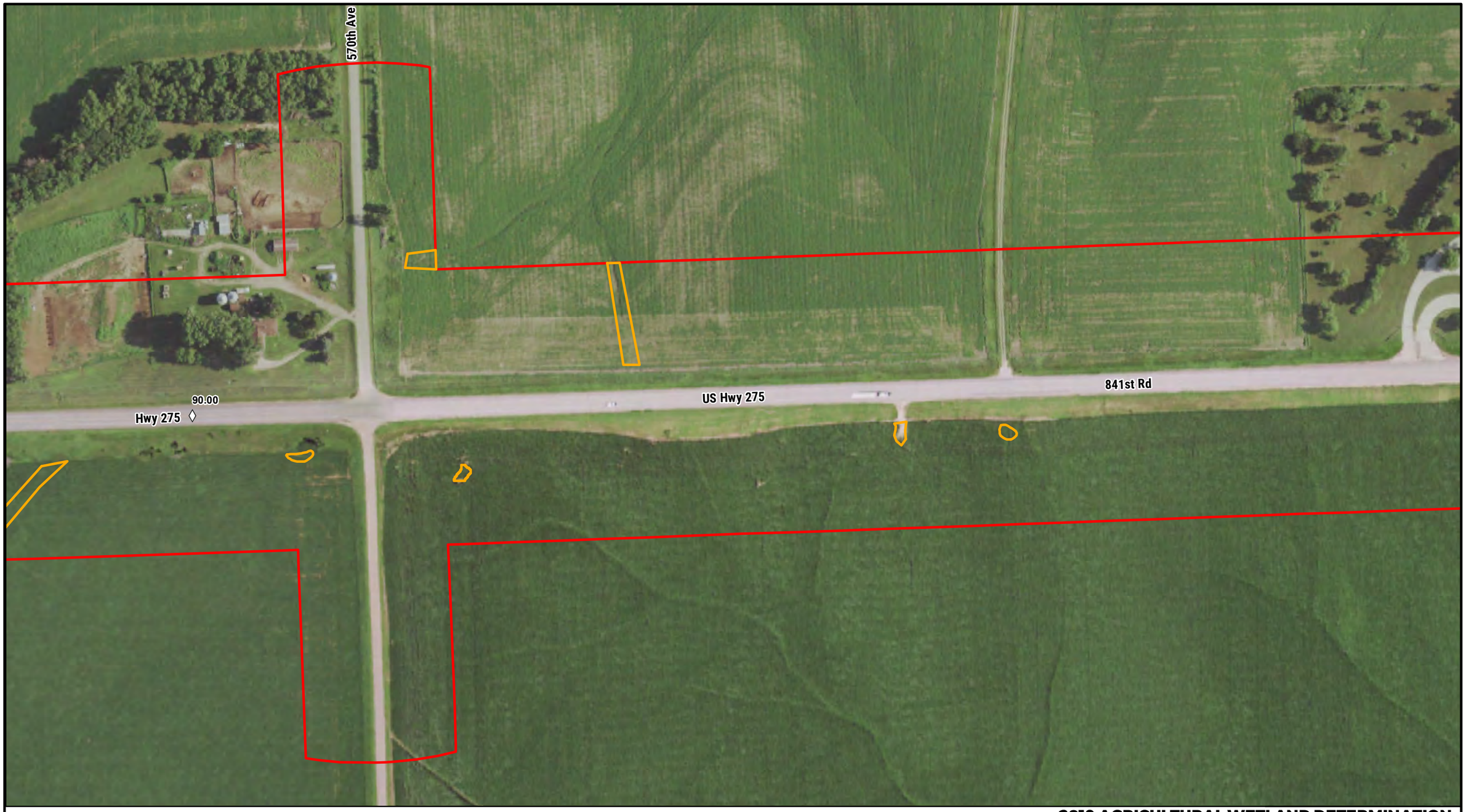

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FIGURE 4-13

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FIGURE 4-13

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FIGURE 4-13

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FIGURE 4-13

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FIGURE 4-13

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FIGURE 4-13

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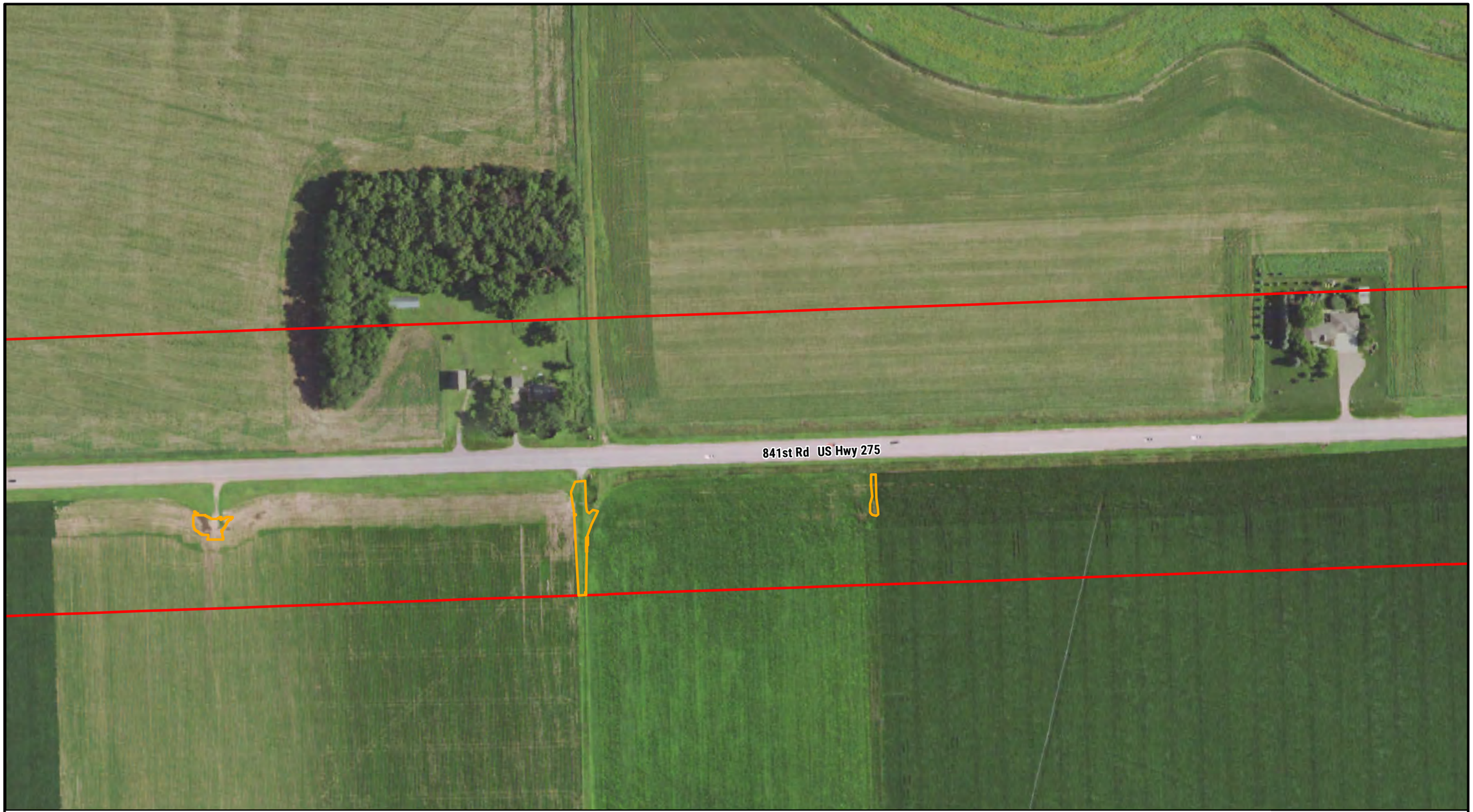

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FIGURE 4-13

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574th Ave

94.00

841st Rd

US Hwy 275

State Hwy 15

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NORFOLK - WISNER
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FIGURE 4-13

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FIGURE 4-13

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FIGURE 4-13

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

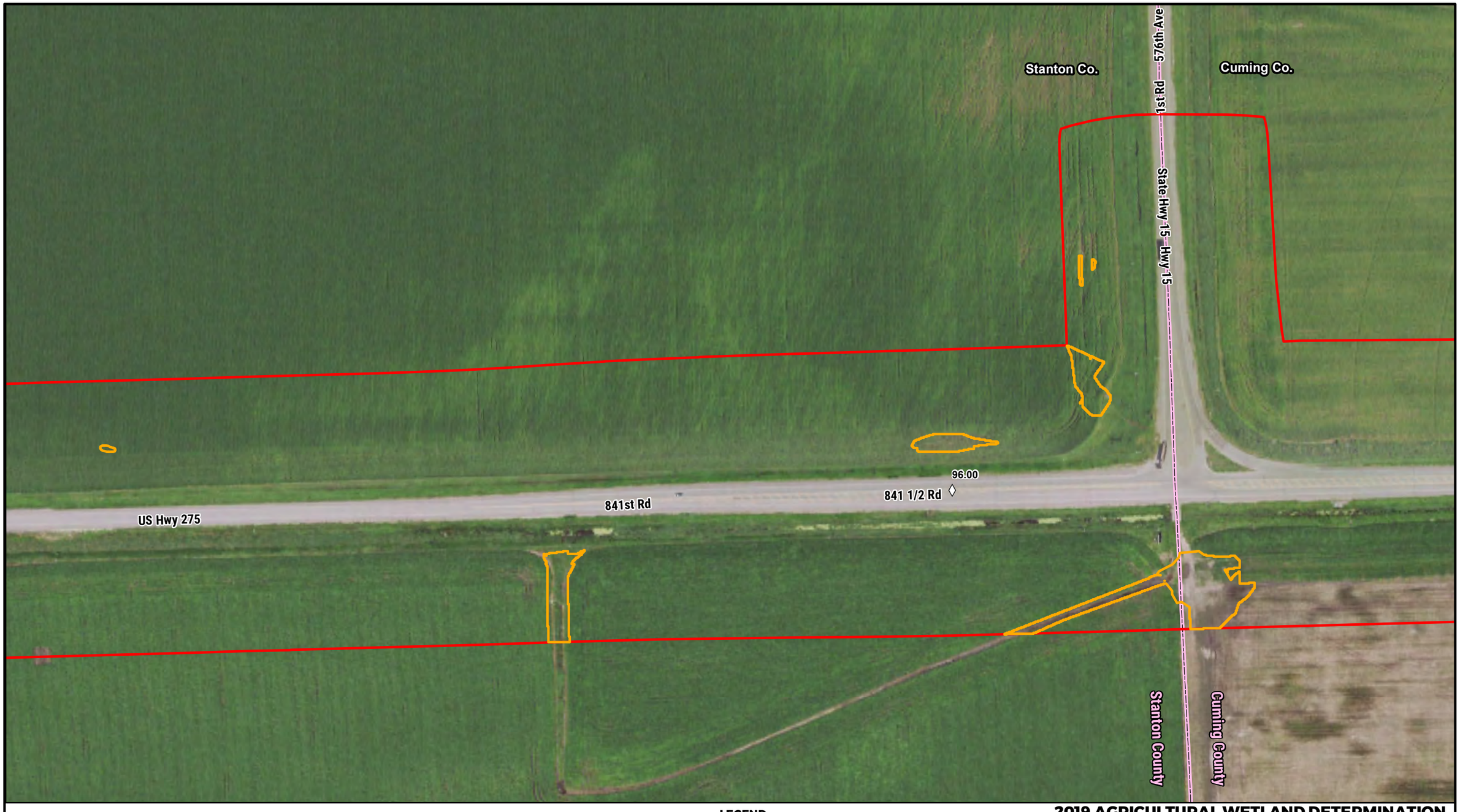

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FIGURE 4-13

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FIGURE 4-13

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FIGURE 4-13

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FIGURE 4-13

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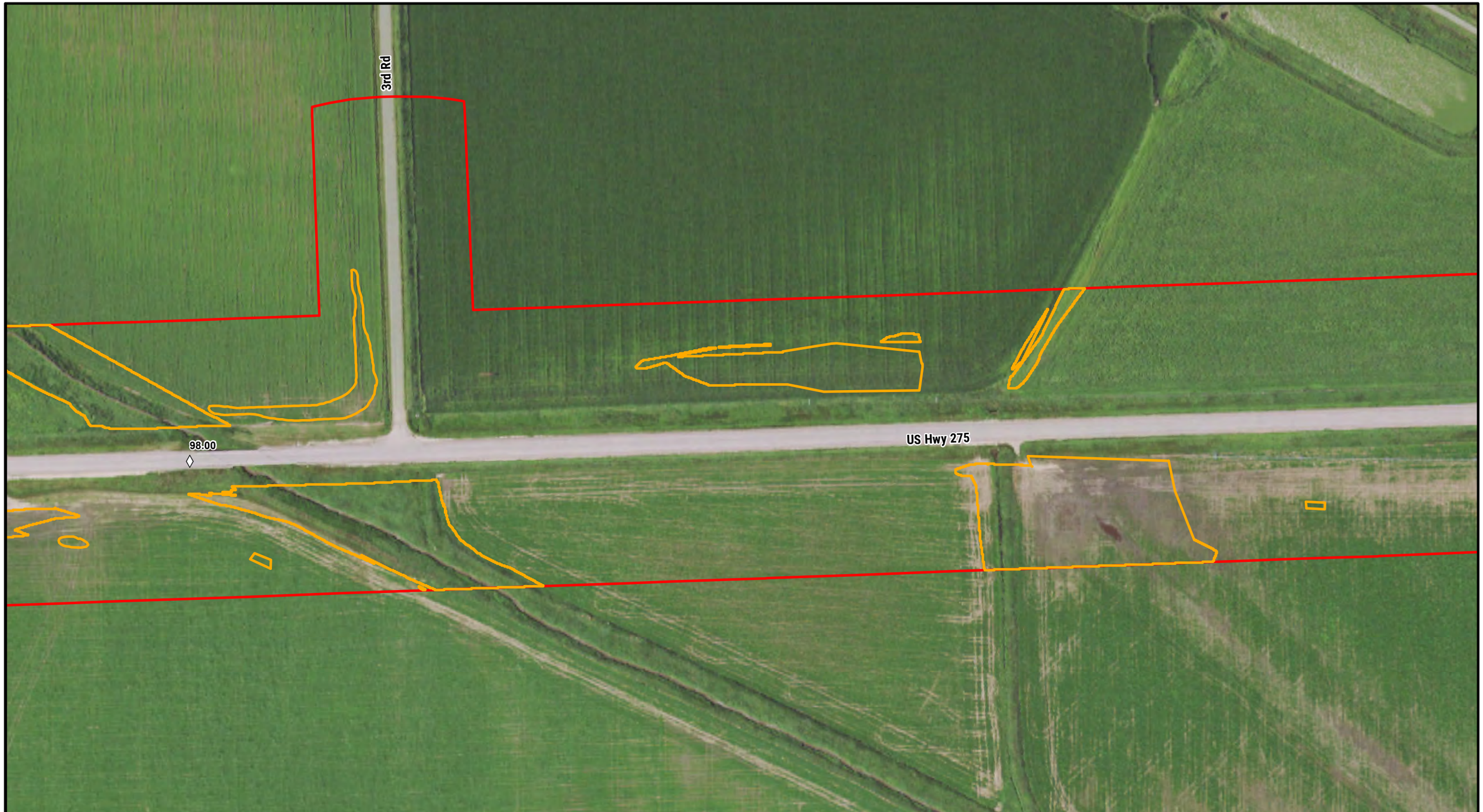

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FIGURE 4-13

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FIGURE 4-13

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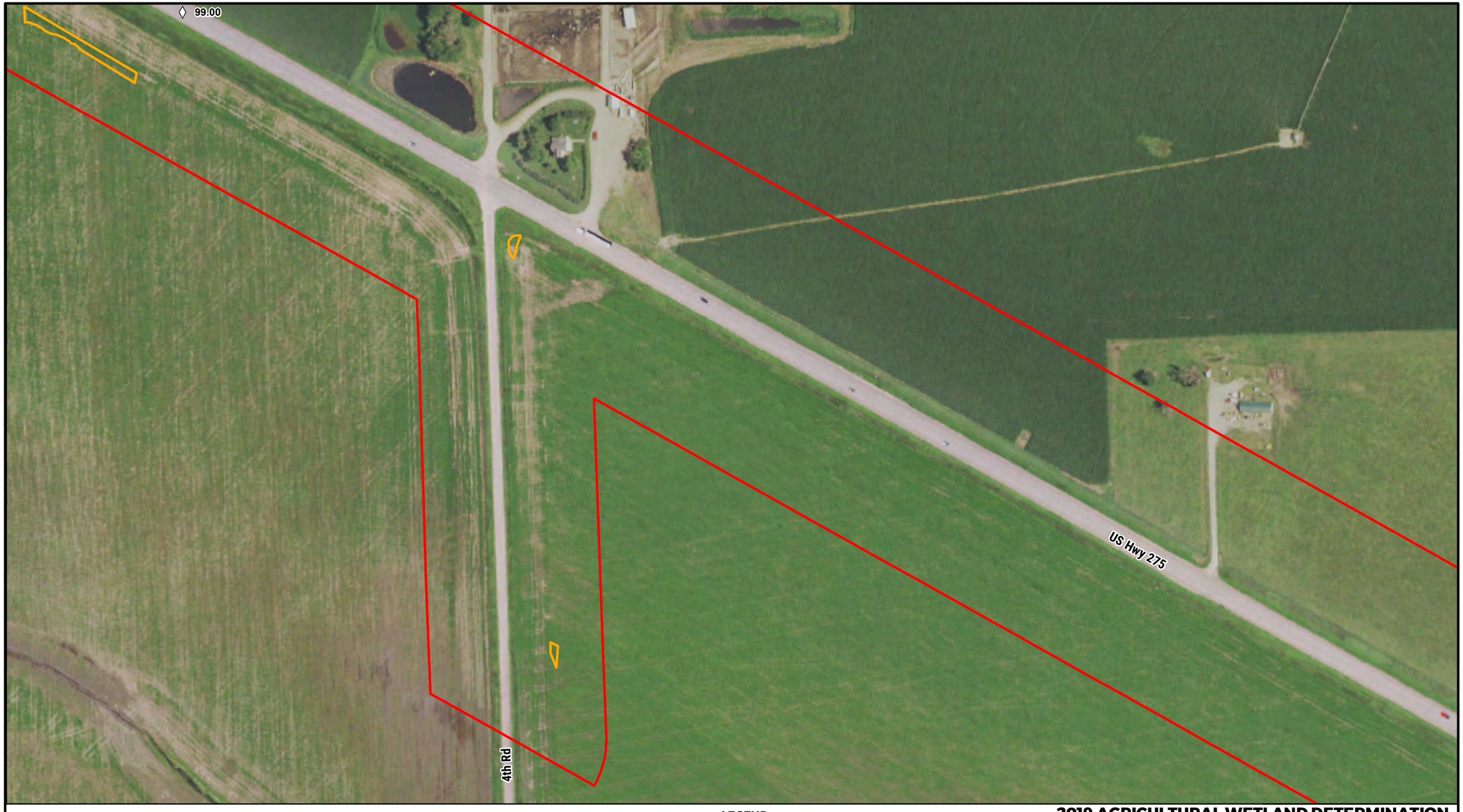

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FIGURE 4-13

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FIGURE 4-13

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FIGURE 4-13

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

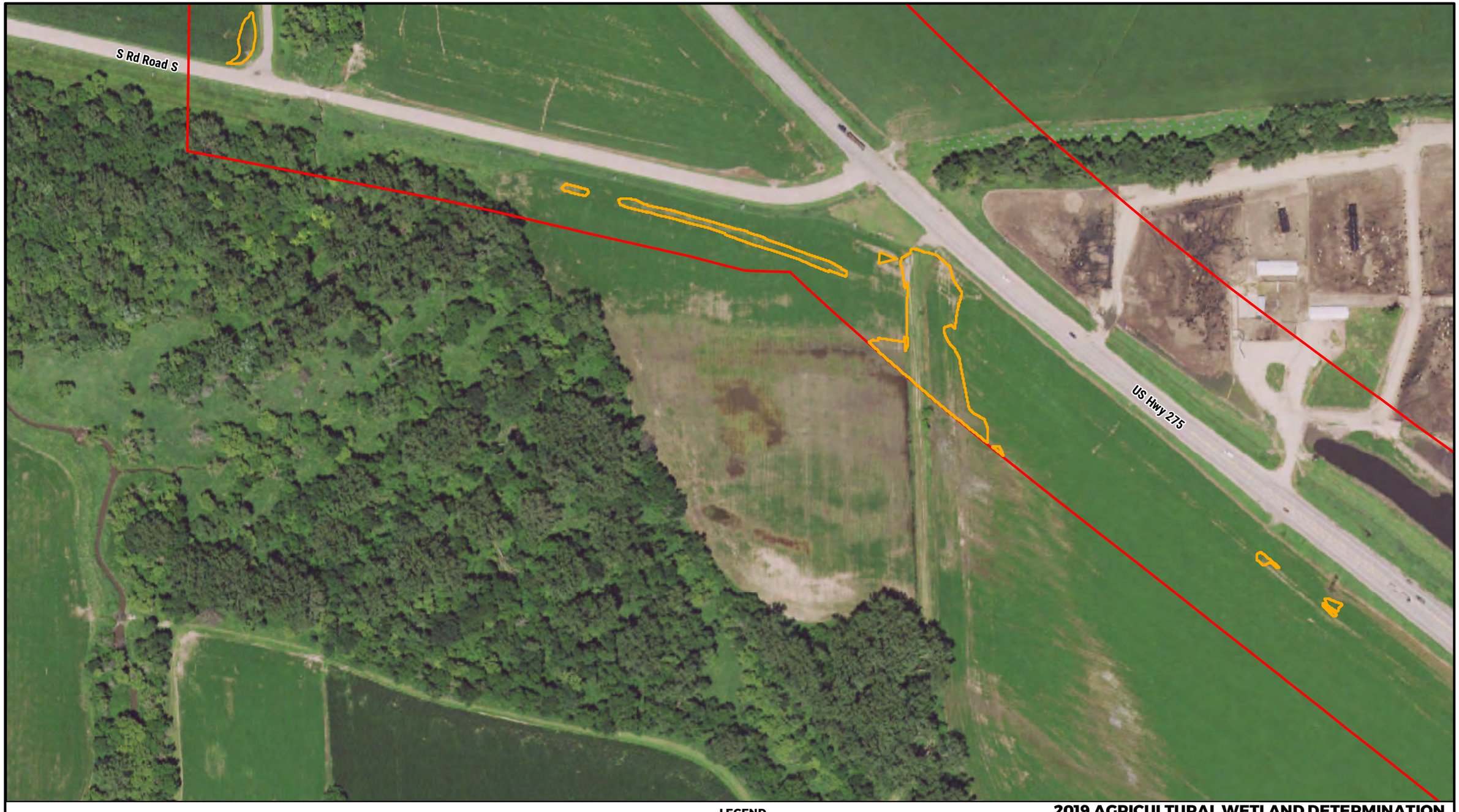

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FIGURE 4-13

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019

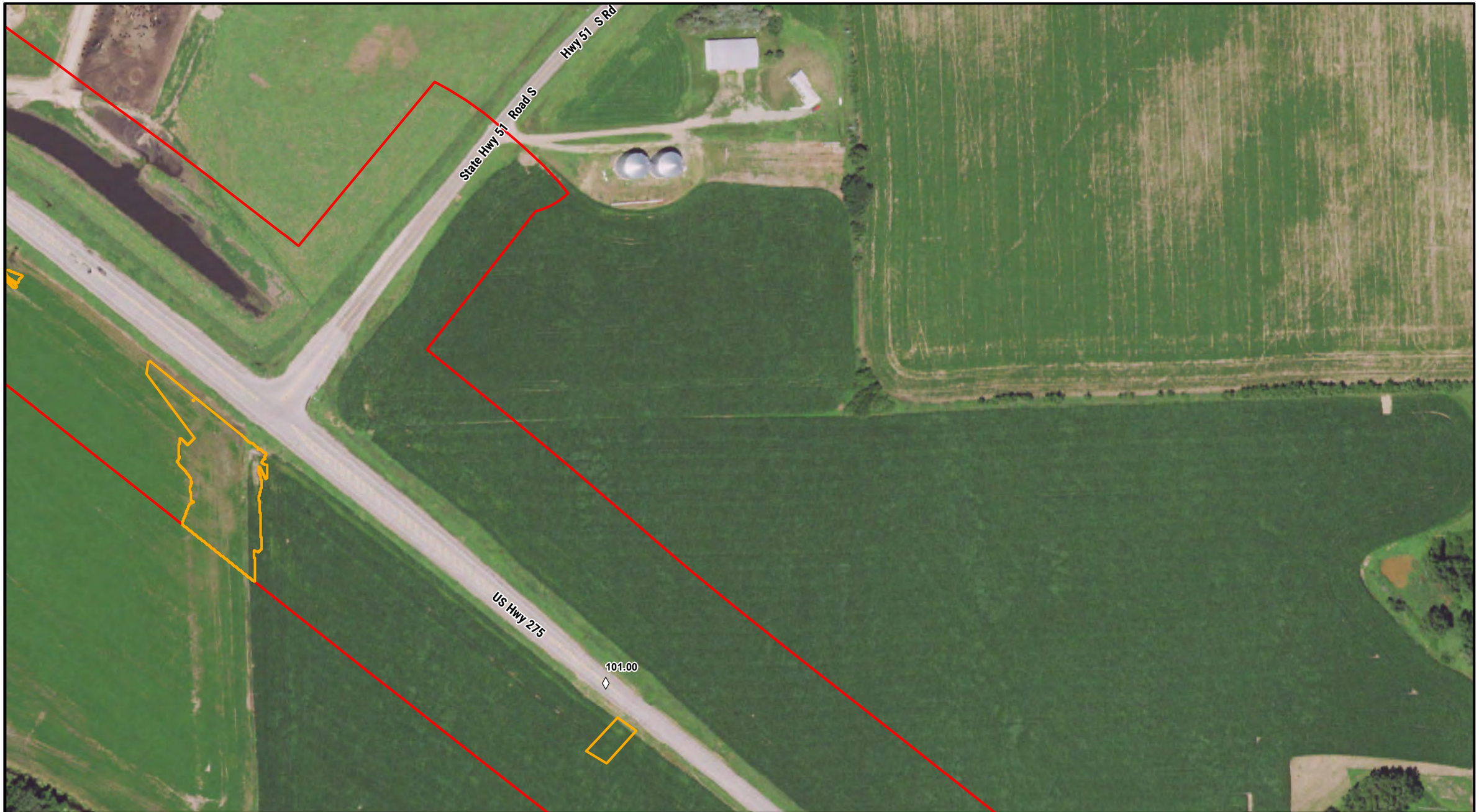

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FIGURE 4-13

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\WETLAND_DELINEATION\20190530_AGWETLANDS.MXD - USER: CMODRCIN - DATE: 6/12/2019



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FIGURE 4-13

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FIGURE 4-13

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Appendix D

Site Photographs



Photo 1 (S-001). Emergent wetland area south of US-275 and west of N-57. Orientation southwest.



Photo 2 (S-002). Scrub-shrub wetland area south of US-275 and west of N-57. Orientation east.



Photo 3 (S-003). Upland outpoint to the adjacent to wetland areas south of US-275 and west of N-57. Orientation west.



Photo 4 (S-004). Forested wetland area north of US-275 and west of N-57. Orientation north.



Photo 5 (S-005). Upland outpoint to the adjacent to the forested wetland area north of US-275 and west of N-57. Orientation north.



Photo 6 (S-006). Upland erosional feature south of US-275 and west of N-57. Orientation northeast.



Photo 7 (S-007). Upland area north of US-275 and east of N-57. Orientation east.



Photo 8 (S-008). Upland outpoint to the adjacent emergent wetland north of US-275 and east of N-57. Orientation northwest.



Photo 9 (S-009). Emergent wetland area adjacent to an ephemeral waterway north of US-275 and east of N-57. Orientation northeast.



Photo 10 (S-010). Scrub shrub wetland area north of US-275 and east of N-57. Orientation west.



Photo 11 (S-011). Upland outpoint to the adjacent emergent wetland north of US-275 and east of N-57. Orientation east.



Photo 12 (S-012). Emergent wetland area south of US-275 and east of N-57. Orientation northeast.



Photo 13 (S-013). Upland outpoint to the adjacent emergent wetland south of US-275 and east of N-57. Orientation west.



Photo 14 (S-014). Wetland area in an agricultural setting south of US-275 and east of N-57. Orientation west.



Photo 15 (S-015). Upland outpoint to the adjacent emergent wetland north of US-275 and east of N-57. Orientation northwest.



Photo 16 (S-016). Emergent semi-permanently flooded wetland area north of US-275 and east of N-57. Orientation north.



Photo 17 (S-017). Upland area in an agricultural setting north of US-275 and east of N-57. Orientation northwest.



Photo 18 (S-018). Emergent wetland area north of US-275 and east of N-57. Orientation north.



Photo 19 (S-019). Upland outpoint to the adjacent emergent wetland north of US-275 and east of N-57. Orientation east.



Photo 20 (S-020). Upland area in an agricultural setting south of US-275 and west of 567th Rd. Orientation northeast.



Photo 21 (S-021). Upland area in an agricultural setting north of US-275 and west of 567th Rd. Orientation southwest.



Photo 22 (S-022). Upland area in an agricultural setting north of US-275 and west of 567th Rd. Orientation south.



Photo 23 (S-023). Upland area in an agricultural setting north of US-275 and west of 567th Rd. Orientation south.



Photo 24 (S-024). Upland area in an agricultural setting to north of US-275 and west of 567th Rd. Orientation east.



Photo 25 (S-025). Emergent wetland area adjacent to an unnamed perennial waterway north of US-275 and west of 567th Rd. Orientation east.



Photo 26 (S-026). Upland outpoint to the adjacent emergent wetland north of US-275 and west of 567th Rd. Orientation north.



Photo 27 (S-027). Upland area in an agricultural setting north of US-275 and west of 567th Rd. Orientation southwest.



Photo 28 (S-028). Upland outpoint to the adjacent emergent wetland north of US-275 and west of 567th Rd. Orientation west.



Photo 29 (S-029). Emergent wetland area north of US-275 and west of 567th Rd. Orientation north.



Photo 30 (S-030). Emergent wetland area north of US-275 and east of 567th Rd. Orientation north.



Photo 31 (S-031). Upland outpoint to the adjacent wetland in an agricultural setting north of US-275 and east of 567th Rd. Orientation northeast.



Photo 32 (S-032). Upland area in an agricultural setting north of US-275 and east of 567th Rd. Orientation east.



Photo 33 (S-033). Upland area in an agricultural setting north of US-275 and east of 567th Rd. Orientation east.



Photo 34 (S-034). Wetland area in an agricultural setting north of US-275 and east of 567th Rd. Orientation north.



Photo 35 (S-035). Wetland area in an agricultural setting north of US-275 and east of 567th Rd. Orientation southeast.



Photo 36 (S-036). Wetland area in an agricultural setting north of US-275 and east of 567th Rd. Orientation east.



Photo 37 (S-037). Wetland area in an agricultural setting north of US-275 and east of 567th Rd. Orientation east.



Photo 38 (S-038). Upland outpoint to the adjacent emergent wetland north of US-275 and east of 567th Rd. Orientation west.



Photo 39 (S-039). Emergent wetland area north of US-275 and east of 567th Rd. Orientation east.



Photo 40 (S-040). Wetland area in an agricultural setting north of US-275 and east of 567th Rd. Orientation east.



Photo 41 (S-041). Wetland area in an agricultural setting north of US-275 and east of 567th Rd. Orientation southwest.



Photo 42 (S-042). Wetland area in an agricultural setting north of US-275 and east of 567th Rd. Orientation southeast.



Photo 43 (S-043). Emergent wetland area adjacent to an unnamed perennial waterway north of US-275 and east of 567th Rd. Orientation west.



Photo 44 (S-044). Upland outpoint to the adjacent emergent wetland south of US-275 and east of 567th Rd. Orientation northwest.



Photo 45 (S-045). Emergent wetland area north of US-275 and east of 567th Rd. Orientation northeast.



Photo 46 (S-46). Wetland area in an agricultural setting north of US-275 and east of 567th Rd. Orientation west.



Photo 47 (S-047). Upland outpoint to the adjacent emergent wetland north of US-275 and east of 567th Rd. Orientation northeast.



Photo 48 (S-048). Emergent wetland area south of US-275 and east of 567th Rd. Orientation northwest.



Photo 49 (S-049). Emergent wetland area north of US-275 and east of 567th Rd. Orientation west.



Photo 50 (S-050). Upland outpoint to the adjacent emergent wetland north of US-275 and east of 567th Rd. Orientation west.



Photo 51 (S-051). Emergent wetland area south of US-275 and east of 567th Rd. Orientation west.



Photo 52 (S-052). Upland outpoint to the adjacent emergent wetland south of US-275 and east of 567th Rd. Orientation east.



Photo 53 (S-053). Emergent wetland area south of US-275 and east of 567th Rd. Orientation east.



Photo 54 (S-054). Emergent wetland area south of US-275 and east of 567th Rd. Orientation southeast.



Photo 55 (S-055). Upland outpoint to the adjacent emergent wetland south of US-275 and east of 567th Rd. Orientation west.



Photo 56 (S-056). Emergent wetland area south of US-275 and east of 567th Rd. Orientation north.



Photo 57 (S-057). Upland outpoint to the adjacent emergent wetland south of US-275 and east of 567th Rd. Orientation south.



Photo 58 (S-058). Upland outpoint to the adjacent emergent wetland south of US-275 and east of 567th Rd. Orientation east.



Photo 59 (S-059). Upland outpoint to the adjacent emergent wetland south of US-275 and east of 567th Rd. Orientation east.



Photo 60 (S-060). Upland outpoint to the adjacent emergent wetland south of US-275 and east of 567th Rd. Orientation east.



Photo 61 (S-061). Emergent wetland area south of US-275 and east of 567th Rd. Orientation west.



Photo 62 (S-062). Emergent wetland area south of US-275 and west of 568th Avenue. Orientation northwest.



Photo 63 (S-063). Wetland area in an agricultural area south of US-275 and west of 568th Avenue. Orientation south.



Photo 64 (S-064). Upland area in an agricultural setting south of US-275 and west of 568th Avenue. Orientation west.



Photo 65 (S-065). Emergent wetland area adjacent to an unnamed perennial waterway south of US-275 and west of 568th Avenue. Orientation northwest.



Photo 66 (S-066). Upland outpoint to the adjacent emergent wetland south of US-275 and west of 568th Avenue. Orientation south.



Photo 67 (S-067). Upland outpoint to the adjacent emergent wetland area south of US-275 and west of 568th Avenue. Orientation northwest.



Photo 68 (S-068). Upland area in an agricultural setting south of US-275 and west of 568th Avenue. Orientation northeast.



Photo 69 (S-069). Wetland area in an agricultural setting south of US-275 and west of 568th Avenue. Orientation northwest.



Photo 70 (S-070). Wetland area in an agricultural setting south of US-275 and west of 568th Avenue. Orientation northwest.



Photo 71 (S-071). Upland area in an agricultural setting south of US-275 and west of 568th Avenue. Orientation east.



Photo 72 (S-072). Upland area in an agricultural setting south of US-275 and west of 568th Avenue. Orientation north.



Photo 73 (S-073). Emergent wetland area south of US-275 and west of 568th Avenue. Orientation south.



Photo 74 (S-074). Upland outpoint to the adjacent emergent wetland south of US-275 and west of 568th Avenue. Orientation southeast.



Photo 75 (S-075). Wetland area in an agricultural setting south of US-275 and west of 568th Avenue. Orientation north.



Photo 76 (S-076). Emergent wetland area south of US-275 and east of 568th Avenue. Orientation north.



Photo 77 (S-077). Upland outpoint to the adjacent emergent wetland south of US-275 and east of 568th Avenue. Orientation north.



Photo 78 (S-078). Wetland area in an agricultural setting south of US-275 and east of 568th Avenue. Orientation south.



Photo 79 (S-079). Upland area in an agricultural setting south of US-275 and east of 568th Avenue. Orientation south.



Photo 80 (S-080). Upland area in an agricultural setting south of US-275 and east of 568th Avenue. Orientation south.



Photo 81 (S-081). Upland area in an agricultural setting south of US-275 and east of 568th Avenue. Orientation south.



Photo 82 (S-082). Upland area in an agricultural setting north of US-275 and east of 568th Avenue. Orientation north.



Photo 83 (S-083). Upland area in an agricultural setting north of US-275 and east of 568th Avenue. Orientation east.



Photo 84 (S-084). Upland area in an agricultural setting north of US-275 and east of 568th Avenue. Orientation east.



Photo 85 (S-085). Upland outpoint to the adjacent emergent wetland south of US-275 and east of 568th Avenue. Orientation east.



Photo 86 (S-086). Upland outpoint to the adjacent waterway south of US-275 and west of 569th Avenue. Orientation south.



Photo 87 (S-087). Emergent wetland fringe area adjacent to the perennial waterway, Payne Creek, north of US-275 and west of 569th Avenue. Orientation north.



Photo 88 (S-088). Upland outpoint to the adjacent waterway north of US-275 and west of 569th Avenue. Orientation north.



Photo 89 (S-089). Upland area south of US-275 and west of 569th Avenue. Orientation northeast.



Photo 90 (S-090). Upland area in an agricultural setting south of US-275 and west of 569th Avenue. Orientation southeast.



Photo 91 (S-091). Upland berm in an agricultural setting north of US-275 and west of 569th Avenue. Orientation northeast.



Photo 92 (S-092). Wetland area in an agricultural setting north of US-275 and west of 569th Avenue. Orientation west.



Photo 93 (S-093). Upland area in an agricultural setting north of US-275 and west of 569th Avenue. Orientation west.



Photo 94 (S-094). Wetland area in an agricultural setting north of US-275 and west of 569th Avenue. Orientation east.



Photo 95 (S-095). Upland area in an agricultural setting north of US-275 and west of 569th Avenue. Orientation west.



Photo 96 (S-096). Emergent wetland area in an isolated depression south of US-275 and west of 569th Avenue. Orientation southwest.



Photo 97 (S-097). Upland outpoint to the adjacent emergent wetland south of US-275 and west of 569th Avenue. Orientation west.



Photo 98 (S-098). Upland area in an agricultural setting south of US-275 and east of 569th Avenue. Orientation southwest.



Photo 99 (S-099). Upland area in an agricultural setting north of US-275 and east of 569th Avenue. Orientation north.



Photo 100 (S-100). Wetland area in an agricultural setting north of US-275 and east of 569th Avenue. Orientation southeast.



Photo 101 (S-101). Upland area in an agricultural setting north of US-275 and east of 569th Avenue. Orientation northwest.



Photo 102 (S-102). Emergent wetland fringe area adjacent to an intermittent waterway south of US-275 and east of 569th Avenue. Orientation south.



Photo 103 (S-103). Upland outpoint to the adjacent emergent wetland south of US-275 and east of 569th Avenue. Orientation south.



Photo 104 (S-104). Wetland area in an agricultural setting north of US-275 and east of 569th Avenue. Orientation south.



Photo 105 (S-105). Upland outpoint to the adjacent waterway north of US-275 and east of 569th Avenue. Orientation east.



Photo 106 (S-106). Wetland area in an agricultural setting north of US-275 and east of 569th Avenue. Orientation northeast.



Photo 107 (S-107). Upland area in an agricultural setting north of US-275 and east of 569th Avenue. Orientation north.



Photo 108 (S-108). Wetland area in an agricultural setting north of US-275 and east of 569th Avenue. Orientation northeast.



Photo 109 (S-109). Wetland area in an agricultural setting north of US-275 and east of 569th Avenue. Orientation east.



Photo 110 (S-110). Upland area in an agricultural setting south of US-275 and east of 569th Avenue. Orientation south.



Photo 111 (S-111). Upland area in an agricultural setting south of US-275 and west of 570th Avenue. Orientation southeast.



Photo 112 (S-112). Wetland area in an agricultural setting south of US-275 and west of 570th Avenue. Orientation southwest.



Photo 113 (S-113). Upland area in an agricultural setting south of US-275 and west of 570th Avenue. Orientation south.



Photo 114 (S-114). Upland area in an agricultural setting south of US-275 and west of 570th Avenue. Orientation east.



Photo 115 (S-115). Upland area in an agricultural setting north of US-275 and east of 570th Avenue. Orientation east.



Photo 116 (S-116). Upland area in an agricultural setting south of US-275 and east of 570th Avenue. Orientation east.



Photo 117 (S-117). Upland area in an agricultural setting south of US-275 and east of 570th Avenue. Orientation east.



Photo 118 (S-118). Upland area in an agricultural setting north of US-275 and east of 570th Avenue. Orientation north.



Photo 119 (S-119). An upland area in an agricultural setting north of US-275 and east of 570th Avenue. Orientation north.



Photo 120 (S-120). Upland field access drive in an agricultural setting south of US-275 and east of 570th Avenue. Orientation south.



Photo 121 (S-121). Upland area in an agricultural setting south of US-275 and east of 570th Avenue. Orientation north.



Photo 122 (S-122). Upland fence line in an agricultural setting south of US-275 and east of 570th Avenue. Orientation south.



Photo 123 (S-123). Upland area in an agricultural setting south of US-275 and west of 571st Avenue. Orientation south.



Photo 124 (S-124). Upland area in an agricultural setting south of US-275 and west of 571st Avenue. Orientation south.



Photo 125 (S-125). An upland area in an agricultural setting north of US-275 and west of 571st Avenue. Orientation east.



Photo 126 (S-126). An upland area in an agricultural setting north of US-275 and west of 571st Avenue. Orientation north.



Photo 127 (S-127). Upland area in an agricultural setting north of US-275 and west of 571st Avenue. Orientation south.



Photo 128 (S-128). Upland area in an agricultural setting north of US-275 and east of 571st Avenue. Orientation east.



Photo 129 (S-129). Upland area in an agricultural setting south of US-275 and east of 571st Avenue. Orientation northwest.



Photo 130 (S-130). Upland area in an agricultural setting south of US-275 and east of 571st Avenue. Orientation north.



Photo 131 (S-131). Upland area in an agricultural setting north of US-275 and east of 571st Avenue. Orientation north.



Photo 132 (S-132). Wetland area in an agricultural setting north of US-275 and east of 571st Avenue. Orientation east.



Photo 133 (S-133). Upland area in an agricultural setting south of US-275 and east of 571st Avenue. Orientation south.



Photo 134 (S-134). Upland area in an agricultural setting south of US-275 and east of 571st Avenue. Orientation south.



Photo 135 (S-135). Upland area in an agricultural setting north of US-275 and east of 571st Avenue. Orientation northeast.



Photo 136 (S-136). Upland area in an agricultural setting south of US-275 and east of 571st Avenue. Orientation north.



Photo 137 (S-137). Upland area in an agricultural setting south of US-275 and east of 571st Avenue. Orientation south.



Photo 138 (S-138). Upland area north of US-275 and west of 572nd Avenue. Orientation north.



Photo 139 (S-139). Upland outpoint to the adjacent emergent wetland north of US-275 and west of 572nd Avenue. Orientation northeast.



Photo 140 (S-140). Emergent wetland area north of US-275 and west of 572nd Avenue. Orientation northeast.



Photo 141 (S-141). Upland outpoint to the adjacent intermittent waterway north of US-275 and west of 572nd Avenue. Orientation northeast.



Photo 142 (S-142). Upland outpoint to the adjacent waterway north of US-275 and east of 572nd Avenue. Orientation northeast.



Photo 143 (S-143). Upland area in an agricultural setting south of US-275 and east of 572nd Avenue. Orientation northwest.



Photo 144 (S-144). Upland swale in an agricultural setting north of US-275 and east of 572nd Avenue. Orientation northwest.



Photo 145 (S-145). Upland fence line in an agricultural setting north of US-275 and east of 572nd Avenue. Orientation north.



Photo 146 (S-146). Upland area in an agricultural setting south of US-275 and east of 572nd Avenue. Orientation south.



Photo 147 (S-147). Upland area adjacent to a waterway north of US-275 and east of 572nd Avenue. Orientation northwest.



Photo 148 (S-148). Upland area north of US-275 and east of 572nd Avenue. Orientation west.



Photo 149 (S-149). Emergent wetland area north of US-275 and east of 572nd Avenue. Orientation west.



Photo 150 (S-150). Upland outpoint to the adjacent emergent wetlands north of US-275 and east of 572nd Avenue. Orientation northeast.



Photo 151 (S-151). Scrub-shrub wetland area north of US-275 and east of 572nd Avenue. Orientation north.



Photo 152 (S-152). Upland outpoint to the adjacent scrub-shrub wetland north of US-275 and east of 572nd Avenue. Orientation southeast.



Photo 153 (S-153). Emergent wetland area north of US-275 and east of 572nd Avenue. Orientation east.



Photo 154 (S-154). Upland outpoint to the adjacent emergent wetland north of US-275 and east of 572nd Avenue. Orientation west.



Photo 155 (S-155). Upland field access drive in an agricultural setting north of US-275 and east of 572nd Avenue. Orientation north.



Photo 156 (S-156). Upland outpoint to the adjacent emergent wetland north of US-275 and east of 572nd Avenue. Orientation east.



Photo 157 (S-157). Emergent wetland area north of US-275 and east of 572nd Avenue. Orientation east.



Photo 158 (S-158). Upland outpoint to the adjacent emergent wetland north of US-275 and east of 572nd Avenue. Orientation west.



Photo 159 (S-159). Upland outpoint to the adjacent perennial waterway, Humbug Creek, north of US-275 and east of 572nd Avenue. Orientation southeast.



Photo 160 (S-160). Upland outpoint to the adjacent channel south of US-275 and east of 572nd Avenue. Orientation northwest.



Photo 161 (S-161). Upland outpoint to the adjacent channel south of US-275 and west of the west junction N-15. Orientation west.



Photo 162 (S-162). Upland bench adjacent to the channel north of US-275 and west of the west junction N-15. Orientation northwest.



Photo 163 (S-163). Wetland area in an agricultural setting north of US-275 and west of the west junction N-15. Orientation south.



Photo 164 (S-164). Wetland area in an agricultural setting south of US-275 and west of the west junction N-15. Orientation east.



Photo 165 (S-165). Upland area in an agricultural setting south of US-275 and west of the west junction N-15. Orientation east.



Photo 166 (S-166). Upland area in an agricultural setting south of US-275 and west of the west junction N-15. Orientation south.



Photo 167 (S-167). Upland area in an agricultural setting south of US-275 and west of the west junction N-15. Orientation south.



Photo 168 (S-168). Upland area in an agricultural setting south of US-275 and west of the west junction N-15. Orientation east.



Photo 169 (S-169). Upland area in an agricultural setting south of US-275 and west of the west junction N-15. Orientation northeast.



Photo 170 (S-170). Wetland area in an agricultural setting south of US-275 and east of the west junction N-15. Orientation south.



Photo 171 (S-171). Upland area in an agricultural setting north of US-275 and east of the west junction N-15. Orientation east.



Photo 172 (S-172). An upland area in an agricultural setting south of US-275 and east of the west junction N-15. Orientation southwest.



Photo 173 (S-173). Upland area in an agricultural setting south of US-275 and east of the west junction N-15. Orientation east.



Photo 174 (S-174). An upland area in an agricultural setting south of US-275 and east of the west junction N-15. Orientation southeast.



Photo 175 (S-175). Upland area north of US-275 and east of the west junction N-15. Orientation east.



Photo 176 (S-176). Upland area in an agricultural setting north of US-275 and east of the west junction N-15. Orientation east.



Photo 177 (S-177). Upland outpoint to the adjacent emergent wetland north of US-275 and east of the west junction N-15. Orientation east.



Photo 178 (S-178). Emergent wetland area north of US-275 and east of the west junction N-15. Orientation east.



Photo 179 (S-179). Upland area in an agricultural setting south of US-275 and east of the west junction N-15. Orientation west.



Photo 180 (S-180). Emergent wetland area north of US-275 and east of the west junction N-15. Orientation east.



Photo 181 (S-181). Upland area in an agricultural setting north of US-275 and east of the west junction N-15. Orientation east.



Photo 182 (S-182). Emergent wetland with open water area north of US-275 and east of the west junction N-15. Orientation northeast.



Photo 183 (S-183). Wetland area in an agricultural setting north of US-275 and east of the west junction N-15. Orientation northwest.



Photo 184 (S-184). Wetland area in an agricultural setting north of US-275 and east of the west junction N-15. Orientation northwest.



Photo 185 (S-185). Wetland area in an agricultural setting north of US-275 and east of the west junction N-15. Orientation west.



Photo 186 (S-186). Upland outpoint to the adjacent emergent wetland north of US-275 and east of the west junction N-15. Orientation north.



Photo 187 (S-187). Emergent wetland area north of US-275 and east of the west junction N-15. Orientation south.



Photo 188 (S-188). Wetland area in an agricultural setting north of US-275 and east of the west junction N-15. Orientation south.



Photo 189 (S-189). Wetland area in an agricultural setting north of US-275 and east of the west junction N-15. Orientation north.



Photo 190 (S-190). Upland area in an agricultural setting south of US-275 and east of the west junction N-15. Orientation south.



Photo 191 (S-191). Emergent wetland area north of US-275 and east of the west junction N-15. Orientation east.



Photo 192 (S-192). Emergent wetland area adjacent to an intermittent waterway south of US-275 and east of the west junction N-15. Orientation south.



Photo 193 (S-193). Upland outpoint to the adjacent emergent wetland south of US-275 and east of the west junction N-15. Orientation west.



Photo 194 (S-194). Upland area in an agricultural setting north of US-275 and east of the west junction N-15. Orientation north.



Photo 195 (S-195). Upland area in an agricultural setting north of US-275 and west of 575th Avenue. Orientation northeast.



Photo 196 (S-196). Upland field access drive in an agricultural setting south of US-275 and west of 575th Avenue. Orientation south.



Photo 197 (S-197). Upland area in an agricultural setting north of US-275 and west of 575th Avenue. Orientation north.



Photo 198 (S-198). Upland area in an agricultural setting north of US-275 and west of 575th Avenue. Orientation north.



Photo 199 (S-199). Upland area in an agricultural setting north of US-275 and west of 575th Avenue. Orientation east.



Photo 200 (S-200). Upland area in an agricultural setting north of US-275 and west of 575th Avenue. Orientation northeast.



Photo 201 (S-201). Upland area north of US-275 and west of 575th Avenue. Orientation south.



Photo 202 (S-202). Wetland area in an agricultural setting south of US-275 and west of 575th Avenue. Orientation southeast.



Photo 203 (S-203). Upland outpoint to the adjacent emergent wetland south of US-275 and west of 575th Avenue. Orientation west.



Photo 204 (S-204). Emergent wetland area south of US-275 and west of 575th Avenue. Orientation south.



Photo 205 (S-205). Upland outpoint to the adjacent emergent wetland north of US-275 and west of 575th Avenue. Orientation southeast.



Photo 206 (S-206). Emergent wetland fringe area adjacent to an intermittent waterway north of US-275 and west of 575th Avenue. Orientation south.



Photo 207 (S-207). Upland outpoint to the adjacent emergent wetland north of US-275 and east of 575th Avenue. Orientation east.



Photo 208 (S-208). Emergent wetland area north of US-275 and east of 575th Avenue. Orientation east.



Photo 209 (S-209). An upland in an agricultural setting south of US-275 and east of 575th Avenue. Orientation east.



Photo 210 (S-210). Wetland area in an agricultural setting north of US-275 and east of 575th Avenue. Orientation west.



Photo 211 (S-211). Upland area in an agricultural setting north of US-275 and east of 575th Avenue. Orientation west.



Photo 212 (S-212). Wetland area in an agricultural setting north of US-275 and east of 575th Avenue. Orientation south.



Photo 213 (S-213). Upland area in an agricultural setting north of US-275 and east of 575th Avenue. Orientation north.



Photo 214 (S-214). Wetland area in an agricultural setting north of US-275 and east of 575th Avenue. Orientation northeast.



Photo 215 (S-215). Wetland area in an agricultural setting north of US-275 and east of 575th Avenue. Orientation north.



Photo 216 (S-216). Upland area in an agricultural setting south of US-275 and east of 575th Avenue. Orientation east.



Photo 217 (S-217). Upland area in an agricultural setting south of US-275 and east of 575th Avenue. Orientation east.



Photo 218 (S-218). Wetland area in an agricultural setting north of US-275 and east of 575th Avenue. Orientation north.



Photo 219 (S-219). Wetland area in an agricultural setting north of US-275 and east of 575th Avenue. Orientation west.



Photo 220 (S-220). Upland area in an agricultural setting north of US-275 and east of 575th Avenue. Orientation north.



Photo 221 (S-221). An upland area in an agricultural setting south of US-275 and east of 575th Avenue. Orientation west.



Photo 222 (S-222). Emergent wetland area north of US-275 and east of 575th Avenue. Orientation south.



Photo 223 (S-223). Upland outpoint to the adjacent emergent wetland north of US-275 and east of 575th Avenue. Orientation north.



Photo 224 (S-224). Upland area adjacent to the channel north of US-275 and east of 575th Avenue. Orientation southeast.



Photo 225 (S-225). Emergent wetland area adjacent to an intermittent waterway north of US-275 and east of 575th Avenue. Orientation northwest.



Photo 226 (S-226). Upland area in an agricultural setting south of US-275 and east of 575th Avenue. Orientation southeast.



Photo 227 (S-227). Upland outpoint to the adjacent emergent wetland south of US-275 and east of 575th Avenue. Orientation east.



Photo 228 (S-228). Emergent wetland area south of US-275 and west of the east junction of N-15. Orientation east.



Photo 229 (S-229). Upland in an agricultural setting north of US-275 and west of the east junction of N-15. Orientation north.



Photo 230 (S-230). Upland area in an agricultural setting north of US-275 and west of the east junction of N-15. Orientation northeast.



Photo 231 (S-231). Upland area in an agricultural setting north of US-275 and west of the east junction of N-15. Orientation west.



Photo 232 (S-232). Upland outpoint to the adjacent emergent wetland north of US-275 and west of the east junction of N-15. Orientation west.



Photo 233 (S-233). Emergent wetland area north of US-275 and west of the east junction of N-15. Orientation east.



Photo 234 (S-234). Emergent wetland area south of US-275 and west of the east junction of N-15. Orientation north.



Photo 235 (S-235). Upland outpoint to the adjacent emergent wetland south of US-275 and west of the east junction of N-15. Orientation south.



Photo 236 (S-236). Upland area in an agricultural setting north of US-275 and west of the east junction of N-15. Orientation west.



Photo 237 (S-237). Upland area in an agricultural setting north of US-275 and west of the east junction of N-15. Orientation north.



Photo 238 (S-238). Upland area in an agricultural setting north of US-275 and west of the east junction of N-15. Orientation north.



Photo 239 (S-239). Upland outpoint to the adjacent emergent wetland north of US-275 and west of the east junction of N-15. Orientation south.



Photo 240 (S-240). Emergent wetland area north of US-275 and west of the east junction of N-15. Orientation north.



Photo 241 (S-241). Upland outpoint to the adjacent emergent wetland north of US-275 and west of the east junction of N-15. Orientation north.



Photo 242 (S-242). Emergent wetland area north of US-275 and east of the east junction of N-15. Orientation north.



Photo 243 (S-243). Upland outpoint to the adjacent emergent wetland north of US-275 and east of the east junction of N-15. Orientation north.



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Photo 252 (S-252). Upland outpoint to the adjacent emergent wetland north of US-275 and east of the east junction of N-15. Orientation southwest.



Photo 253 (S-253). Emergent wetland area north of US-275 and east of the east junction of N-15. Orientation north.



Photo 254 (S-254). Upland area in an agricultural setting north of US-275 and east of the east junction of N-15. Orientation northwest.



Photo 255 (S-255). Emergent wetland area north of US-275 and east of the east junction of N-15. Orientation northeast.



Photo 256 (S-256). Upland outpoint to the adjacent emergent wetland north of US-275 and east of the east junction of N-15. Orientation west.



Photo 257 (S-257). Upland area in an agricultural setting south of US-275 and east of the east junction of N-15. Orientation northwest.



Photo 258 (S-258). Upland area in an agricultural setting north of US-275 and east of the east junction of N-15. Orientation north.



Photo 259 (S-259). Wetland area in an agricultural setting north of US-275 and east of the east junction of N-15. Orientation north.



Photo 260 (S-260). Upland area in an agricultural setting south of US-275 and east of the east junction of N-15. Orientation south.



Photo 261 (S-261). Upland area in an agricultural setting south of US-275 and west of 2085 Rd. Orientation east.



Photo 262 (S-262). Upland outpoint to the adjacent emergent wetland and an intermittent waterway south of US-275 and west of 2085 Rd. Orientation south.



Photo 263 (S-263). Upland outpoint to the adjacent emergent wetland and adjacent to two intermittent waterways north of US-275 and west of 2085 Rd. Orientation north.



Photo 264 (S-264). Emergent wetland area north of US-275 and west of 2085 Rd. Orientation east.



Photo 265 (S-265). Wetland area in an agricultural setting south of US-275 and west of 2085 Rd. Orientation northeast.



Photo 266 (S-266). Upland area in an agricultural setting north of US-275 and west of 2085 Rd. Orientation east.



Photo 267 (S-267). Wetland area in an agricultural setting north of US-275 and west of 2085 Rd. Orientation east.



Photo 268 (S-268). Upland area in an agricultural setting south of US-275 and west of 2085 Rd. Orientation east.



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Photo 270 (S-270). An upland area in an agricultural setting south of US-275 and west of 2085 Rd. Orientation east.



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Photo 273 (S-273). Upland area in an agricultural setting north of US-275 and west of 2085 Rd. Orientation west.



Photo 274 (S-274). Upland area in an agricultural setting north of US-275 and west of 2085 Rd. Orientation north.



Photo 275 (S-275). Upland area in an agricultural setting south of US-275 and west of 2085 Rd. Orientation west.



Photo 276 (S-276). Upland area in an agricultural setting south of US-275 and west of 2085 Rd. Orientation west.



Photo 277 (S-277). An upland area in an agricultural setting south of US-275 and east of 2085 Rd. Orientation southeast.



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Photo 279 (S-279). Upland area in an agricultural setting north of US-275 and east of 2085 Rd. Orientation west.



Photo 280 (S-280). Upland area in an agricultural setting north of US-275 and east of 2085 Rd. Orientation east.



Photo 281 (S-281). Wetland area in an agricultural setting north of US-275 and east of 2085 Rd. Orientation east.



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Photo 286 (S-286). Upland outpoint to the adjacent emergent wetland north of US-275 and east of 2085 Rd. Orientation east.



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Photo 296 (S-296). Upland area in an agricultural setting north of US-275 and west of 3rd Rd. Orientation west.



Photo 297 (S-297). Upland area in an agricultural setting north of US-275 and west of 3rd Rd. Orientation east.



Photo 298 (S-298). Wetland area in an agricultural setting south of US-275 and west of 3rd Rd. Orientation south.



Photo 299 (S-299). Upland area in an agricultural setting south of US-275 and west of 3rd Rd. Orientation southeast.



Photo 300 (S-300). Upland area adjacent to the perennial waterway, Sand Creek, north of US-275 and west of 3rd Rd. Orientation southeast.



Photo 301 (S-301). Upland area adjacent to a waterway north of US-275 and west of 3rd Rd. Orientation northwest.



Photo 302 (S-302). Upland area in an agricultural setting south of US-275 and west of 3rd Rd. Orientation west.



Photo 303 (S-303). Upland area adjacent to a waterway south of US-275 and west of 3rd Rd. Orientation northwest.



Photo 304 (S-304). Upland area adjacent to a waterway south of US-275 and west of 3rd Rd. Orientation southeast.



Photo 305 (S-305). Upland area in an agricultural setting north of US-275 and west of 3rd Rd. Orientation east.



Photo 306 (S-306). Upland area in an agricultural setting north of US-275 and west of 3rd Rd. Orientation west.



Photo 307 (S-307). Upland outpoint to the adjacent emergent wetland south of US-275 and east of 3rd Rd. Orientation south.



Photo 308 (S-308). Emergent wetland area adjacent to an ephemeral waterway south of US-275 and east of 3rd Rd. Orientation south.



Photo 309 (S-309). Emergent wetland area north of US-275 and east of 3rd Rd. Orientation southeast.



Photo 310 (S-310). Upland outpoint to the adjacent emergent wetland north of US-275 and east of 3rd Rd. Orientation north.



Photo 311 (S-311). Upland outpoint to the adjacent emergent wetland north of US-275 and east of 3rd Rd. Orientation west.



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Photo 328 (S-328). Upland area in an agricultural setting south of US-275 and east of 4th Rd. Orientation south.



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Photo 333 (S-333). Upland area adjacent to the waterway north of US-275 and west of S Rd. Orientation south.



Photo 334 (S-334). Upland area adjacent to an intermittent waterway north of US-275 and west of S Rd. Orientation north.



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Photo 336 (S-336). Upland area elevated above the adjacent waterway between US-275 and S Rd. Orientation south.



Photo 337 (S-337). Upland area elevated above the adjacent waterway between US-275 and S Rd. Orientation south.



Photo 338 (S-338). Upland area elevated above the adjacent waterway between US-275 and S Rd. Orientation south.



Photo 339 (S-339). Upland area adjacent to the waterway between US-275 and S Rd. Orientation north.



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Photo 342 (S-342). Wetland area in an agricultural setting between US-275 and S Rd. Orientation west.



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Photo 345 (S-345). Upland area elevated above the adjacent waterway between US-275 and S Rd. Orientation north.



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Photo 347 (S-347). Forested wetland area south of S Rd. Orientation southwest.



Photo 348 (S-348). Emergent wetland area south of S Rd. Orientation west.



Photo 349 (S-349). Emergent wetland area adjacent to an intermittent waterway south of S Rd. Orientation southeast.



Photo 350 (S-350). Upland outpoint to the adjacent emergent and forested wetlands south of S Rd. Orientation southeast.



Photo 351 (S-351). Emergent wetland area south of S Rd. Orientation west.



Photo 352 (S-352). Upland area in an agricultural setting south of US-275 and east of S Rd. Orientation west.



Photo 353 (S-353). Upland area in an agricultural setting south of US-275 and east of S Rd. Orientation east.



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Photo 355 (S-355). Upland area in an agricultural setting north of US-275 and west of S Rd. Orientation southeast.



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Photo 357 (S-357). Emergent fringe wetland area adjacent to a wetland in an agricultural setting south of US-275 and east of S Rd. Orientation south.



Photo 358 (S-358). Upland outpoint to the adjacent emergent wetland and wetland in an agricultural setting south of US-275 and east of S Rd. Orientation south.



Photo 359 (S-359). Wetland area in an agricultural setting south of US-275 and east of S Rd. Orientation south.



Photo 360 (S-360). Upland area in an agricultural setting south of US-275 and east of S Rd. Orientation west.



Photo 361 (S-361). Upland outpoint to the adjacent emergent wetland north of US-275 and east of S Rd. Orientation northwest.



Photo 362 (S-362). Emergent wetland area north of US-275 and east of S Rd. Orientation southeast.



Photo 363 (S-363). Upland area in an agricultural setting south of US-275 and west of N-51. Orientation northwest.



Photo 364 (S-364). An upland area in an agricultural setting adjacent to a culvert inlet south of US-275 and west of N-51. Orientation north.



Photo 365 (S-365). Upland area north of US-275 and west of N-51. Orientation east.

NO PHOTO AVAILABLE

Photo 366 (S-366). Sewage lagoon area north of US-275 and west of N-51. Orientation northwest.



Photo 367 (S-367). Upland area in an agricultural setting south of US-275 and west of N-51. Orientation northwest.



Photo 368 (S-368). Wetland area in an agricultural setting south of US-275 and west of N-51. Orientation northwest.



Photo 369 (S-369). Upland area north of US-275 and west of N-51. Orientation northeast.



Photo 370 (S-370). Upland area in an agricultural setting south of US-275 and east of N-51. Orientation east.



Photo 371 (S-371). Upland area in an agricultural setting south of US-275 and east of N-51. Orientation southeast.



Photo 372 (S-372). Upland area north of US-275 and east of N-51. Orientation northeast.



Photo 373 (S-373). Wetland area in an agricultural setting south of US-275 and east of N-51. Orientation northeast.



Photo 374 (S-374). Upland area in an agricultural setting south of US-275 and east of N-51. Orientation south.



Photo 375 (S-375). Upland area in an agricultural setting south of US-275 and east of N-51. Orientation southwest.



Photo 376 (S-376). Upland area in an agricultural setting north of US-275 and west of 18th St. Orientation northeast.



Photo 377 (S-377). Upland area in an agricultural setting south of US-275 and west of 18th St. Orientation southwest.



Photo 378 (S-378). Wetland area in an agricultural setting north of US-275 and west of 18th St. Orientation northeast.



Photo 379 (S-379). Emergent wetland area south of US-275 and west of 18th St. Orientation northwest.



Photo 380 (S-380). Upland outpoint to the adjacent emergent wetland south of US-275 and west of 18th St. Orientation southeast.



Photo 381 (S-381). Upland area in an agricultural setting south of US-275 and west of 18th St. Orientation south.



Photo 382 (S-382). Upland area adjacent to an ephemeral waterway south of US-275 and west of 18th St. Orientation northeast.

Norfolk – Wisner
Wetland Delineation Report Addendum

Project Number: S-275-6(1052)
Control Number: 32319

January 2022

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

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Introduction

The Nebraska Department of Transportation (NDOT) proposes to expand U.S. Highway 275 (US-275) from a two-lane highway to a four-lane expressway along a 15.5-mile segment from just east of Nebraska Highway 57 to just northwest of Wisner, Nebraska (the Project). All Project activities would occur in Stanton and Cuming Counties, as shown in Appendix A, Figure 1 – Project Location.

This Wetland Delineation Report Addendum documents the occurrence of wetlands and water resources within 11 areas that extend beyond the study area documented in the 2019 Wetland Delineation Report. These areas account for recent changes in roadway design and are labeled as "Expanded Study Area" on Appendix A, Figure 3. Additionally, this Wetland Delineation Report Addendum incorporates December 2021 USACE comments on the 2019 report.

Methodology

On behalf of NDOT, HDR conducted wetland and water resource delineations in the Expanded Study Area on July 8, 2021, in accordance with the *1987 Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Environmental Laboratory, August 2010), and the *NDOT Wetland and Water Resource Procedure Document* (NDOT, December 2017).

Photo points and wetland boundaries were mapped in the field using global positioning system (GPS) technology and were classified according to *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., December 1979) and associated Nebraska Wetland Subclasses. Vegetation was classified according to *North American Digital Flora: National Wetland Plant List* (Lichvar et al., 2016). Non-wetland water resources (waterways/ponds) were also identified. Photographic documentation of observed wetlands and water resources was collected and is included in Appendix D.

Results

No new wetlands or water resources were identified within the Expanded Study Area. As shown in the excerpts of Tables 1 and 3 from the 2019 Wetland Delineation Report, three wetland resources and two waterways increased in size or length (due to the Expanded Study Area) and one wetland (S-359) was reduced in size, based on USACE comment. Beyond the referenced tables, results are further detailed in Appendix A, Figure 3 and Appendix D, Site Photographs.

Table 1. Wetlands

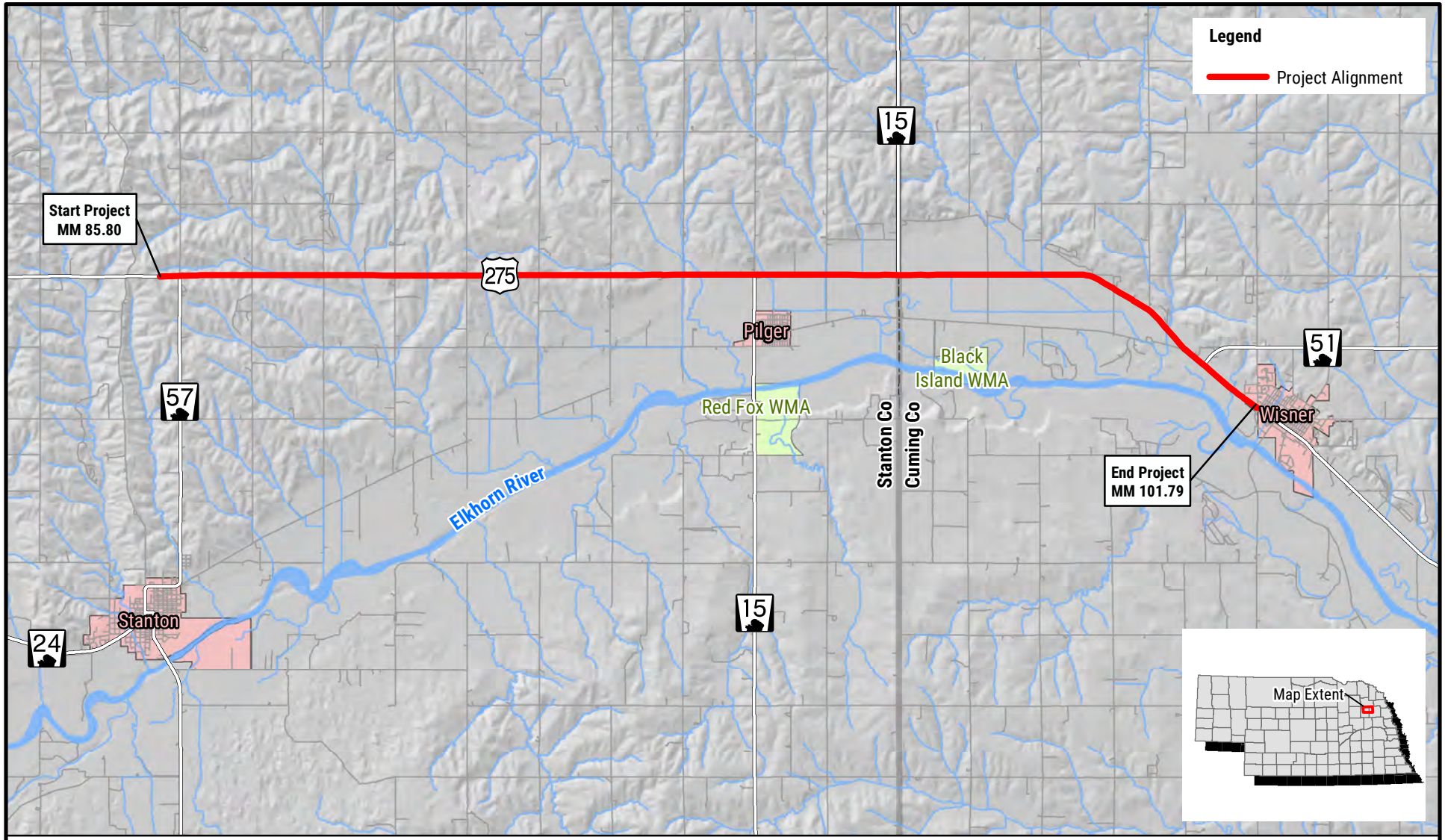
Sample ID[1]	Figure 3 Sheet No.	Wetland Classification		Area (acres)	Considered Jurisdictional	Jurisdictional Category
		Cowardin[2]	Nebraska Subclass			
S-073	6	PEMA/C	Floodplain Depression	Previous: 0.04 New: 0.54	Yes	Abutting Wetland
S-076	6	PEMA/C	Floodplain Depression	Previous: 0.01 New: 0.05	Yes	Abutting Wetland
S-102	9	PEMA/C	Riverine Channel	Previous: 0.03 New: 0.04	Yes	Abutting Wetland
S-359	30	WIAS	Floodplain Depression	Previous: 0.68 New: 0.36	No	Non-Abutting Wetland

Table 3. Water Resources

Sample ID	Figure 3 Sheet No.	Name	Type	Channel Width (feet)	Considered Jurisdictional	Jurisdictional Category
S-025, S-043, S-065	4, 5, 6	Unnamed	Perennial/Intermittent Waterway	2 - 4.5	Yes	Tributary
S-102	9	Unnamed	Intermittent Waterway	1 - 3	Yes	Tributary

Appendix A

Figures



NEBRASKA
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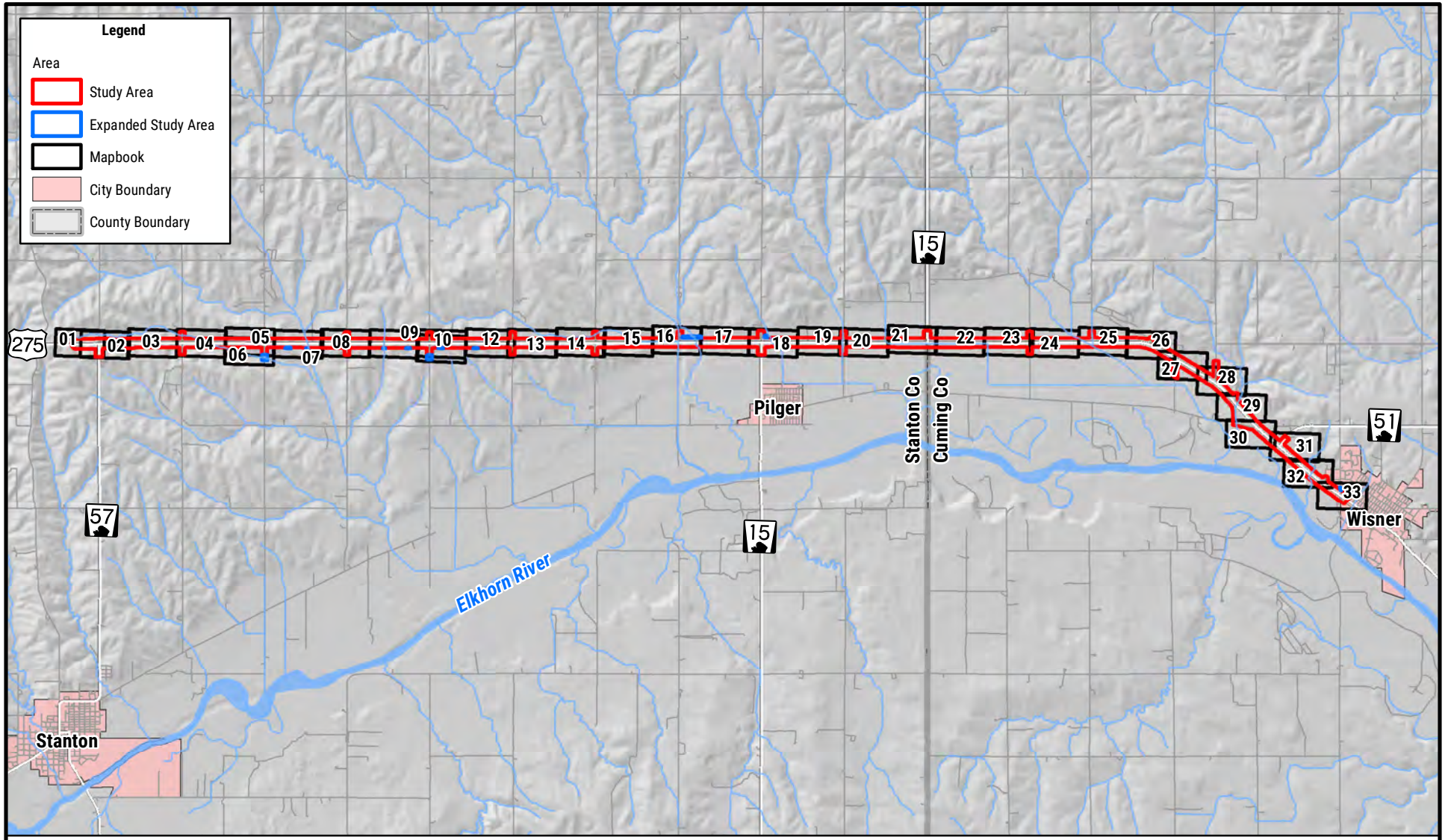
PROJECT LOCATION

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 1

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\MAP_8X11_FIG_1_PROJECT_LOCATION_JD.MXD - USER: CMODRCIN - DATE: 12/14/2021



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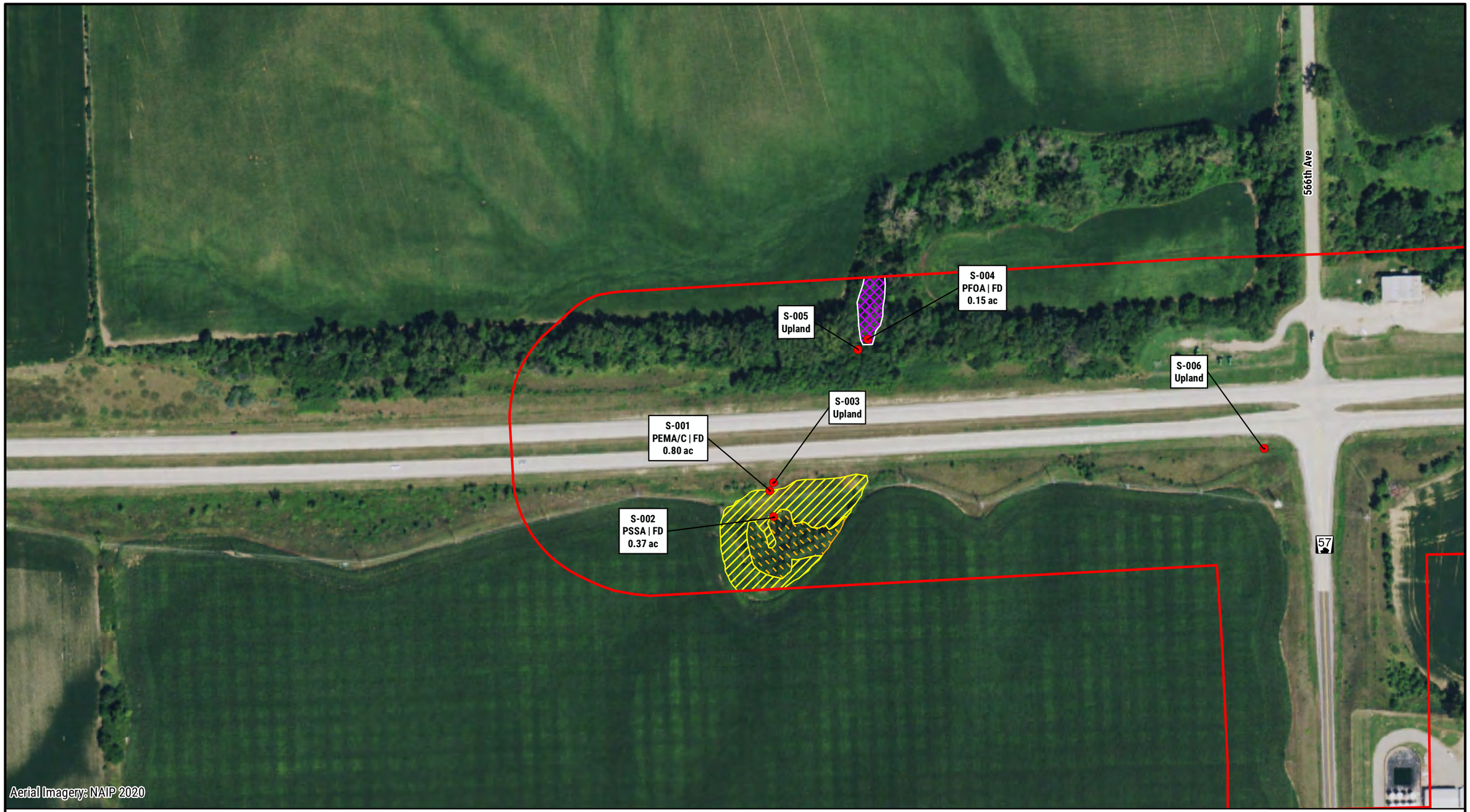
0 0.75 1.5
MILES

N

KEY MAP
NORFOLK - WISNER
PROJ. NO. S-275-6(1052)
CONTROL NO. 32319

FIGURE 2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\EXPANDED_STUDYAREA_JULY2021\FIG2_KEY_MAP.MXD - USER: CMODRCIN - DATE: 9/2/2021



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Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

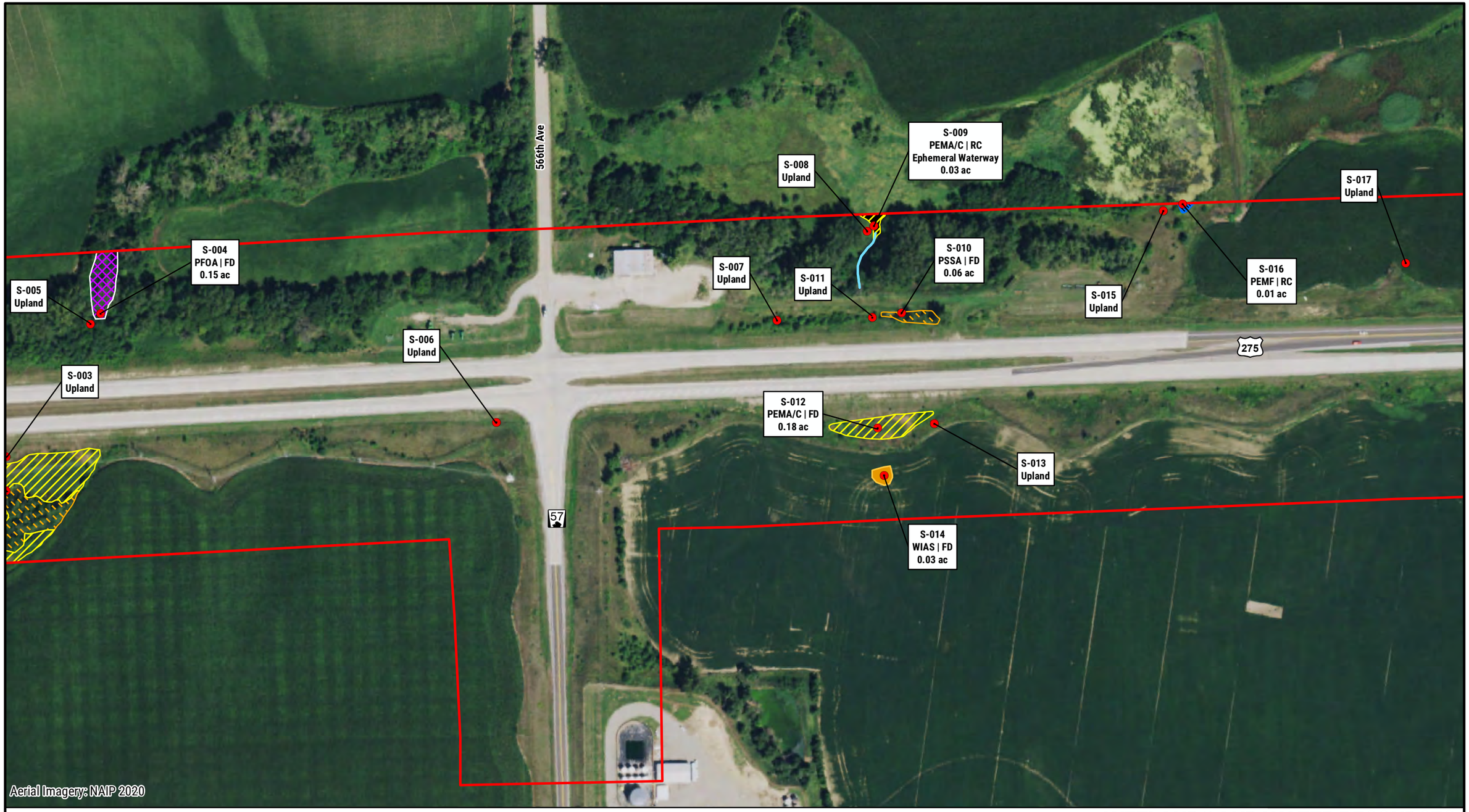
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 1 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
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FIGURE 3 SHEET 2 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA	
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA	
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS	
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS	

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 3 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021

S-025
PEMA/C | RC
Perennial Waterway
0.01 ac

S-026
Upland

S-030
PEMA/C | FD
0.05 ac

S-023
Upland

S-034
WIAS | FD
6.89

S-042
WIAS | FD
See S-034

S-043
PEMA/C | RC
Perennial Waterway
0.09 ac

S-049
PEMA/C | FD
0.02 ac

S-056
PEMA/C | FD
0.001 ac

S-040
WIAS | FD
See S-034

S-045
PEMA/C | FD
See S-034

S-047
Upland

S-052
Upland

S-057
Upland

S-022
Upland

S-041
WIAS | FD
See S-034

S-046
WIAS | FD
See S-034

S-055
Upland

S-064
Upland

S-033
Upland

S-035
WIAS | FD
See S-034

S-050
Upland

S-063
WIAS | FD
0.29 ac

S-053
PEMA/C | FD
1.14 ac

S-058
Upland

S-021
Upland

S-060
Upland

S-024
Upland

S-036
WIAS | FD
See S-034

275

S-029
PEMA/C | FD
0.06 ac

S-032
Upland

S-037
WIAS | FD
See S-034

S-039
PEMA/C | FD
0.22 ac

S-027
Upland

S-031
Upland

S-038
Upland

S-044
Upland

S-048
PEMA/C | FD
4.04 ac

S-028
Upland

S-043
Continued

S-051
PEMA | RC
See S-048

S-054
PEMA | FD
See S-048

S-061
PEMA/C | FD
0.48 ac

S-062
PEMA/C | FD
See S-061

S-059
Upland

S-066
Upland

S-065
PEMA/C | RC
Perennial Waterway
0.02 ac

567th Rd

Aerial Imagery: NAIP 2020

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

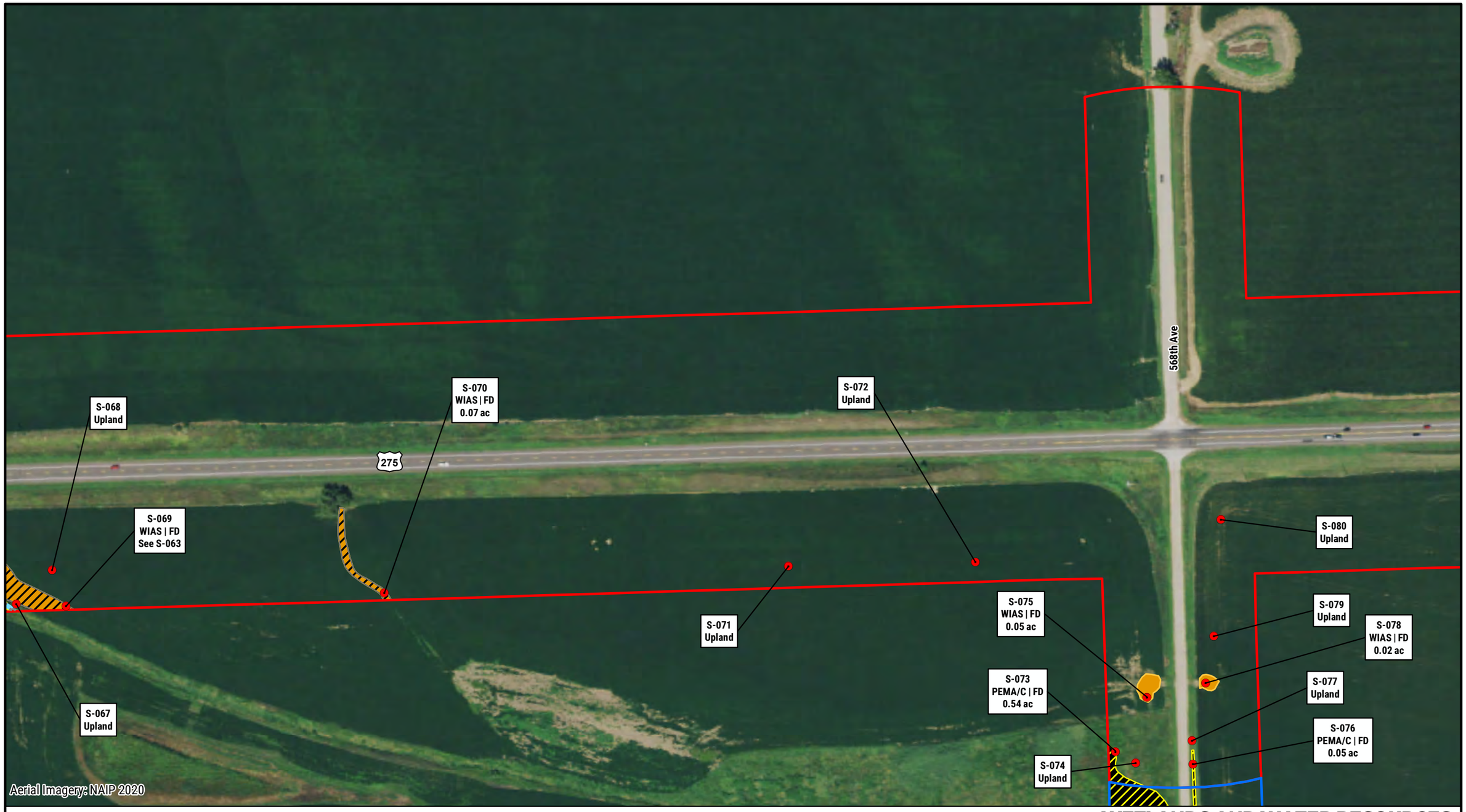
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 4 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

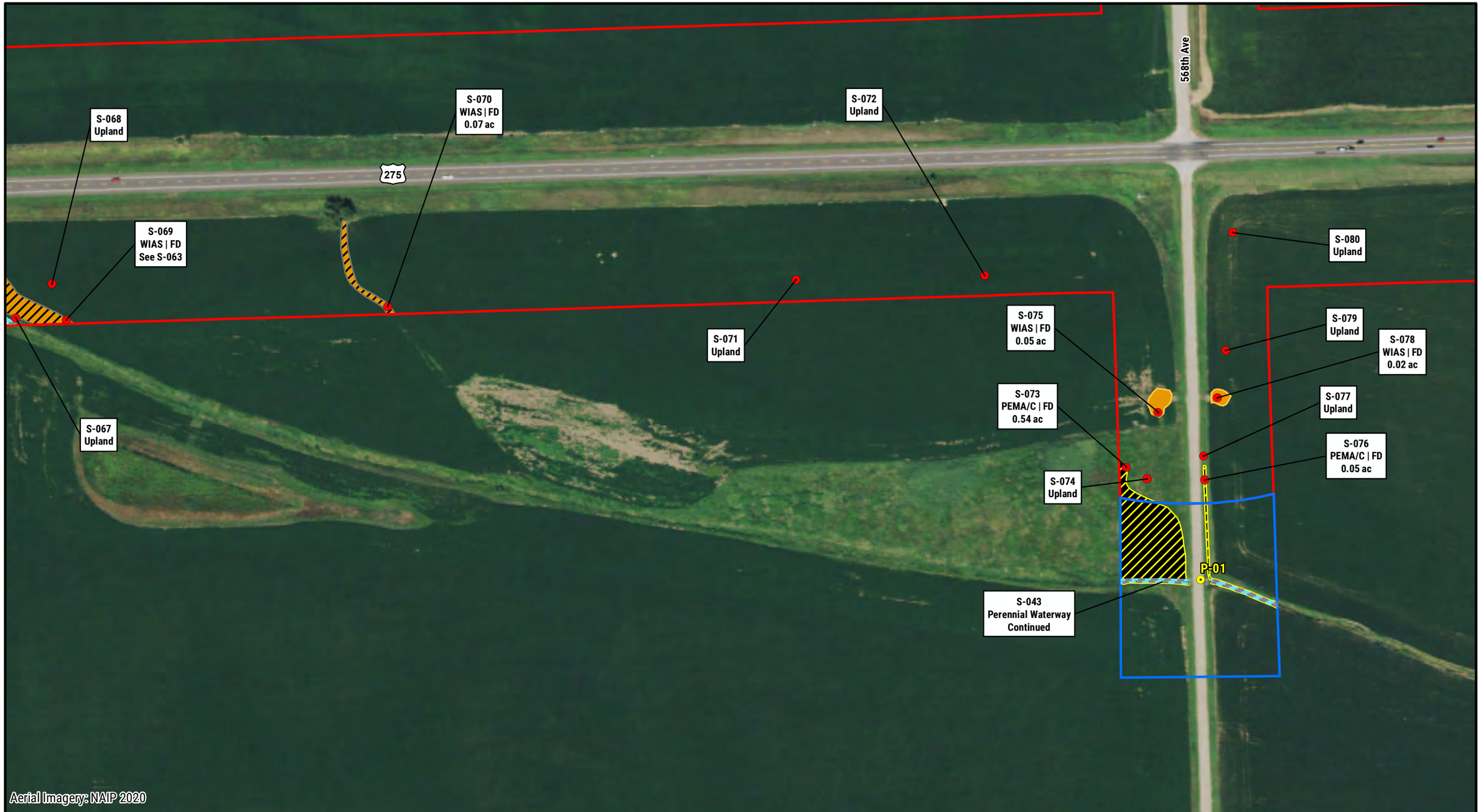
Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 12/14/2021

FIGURE 3 SHEET 5 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

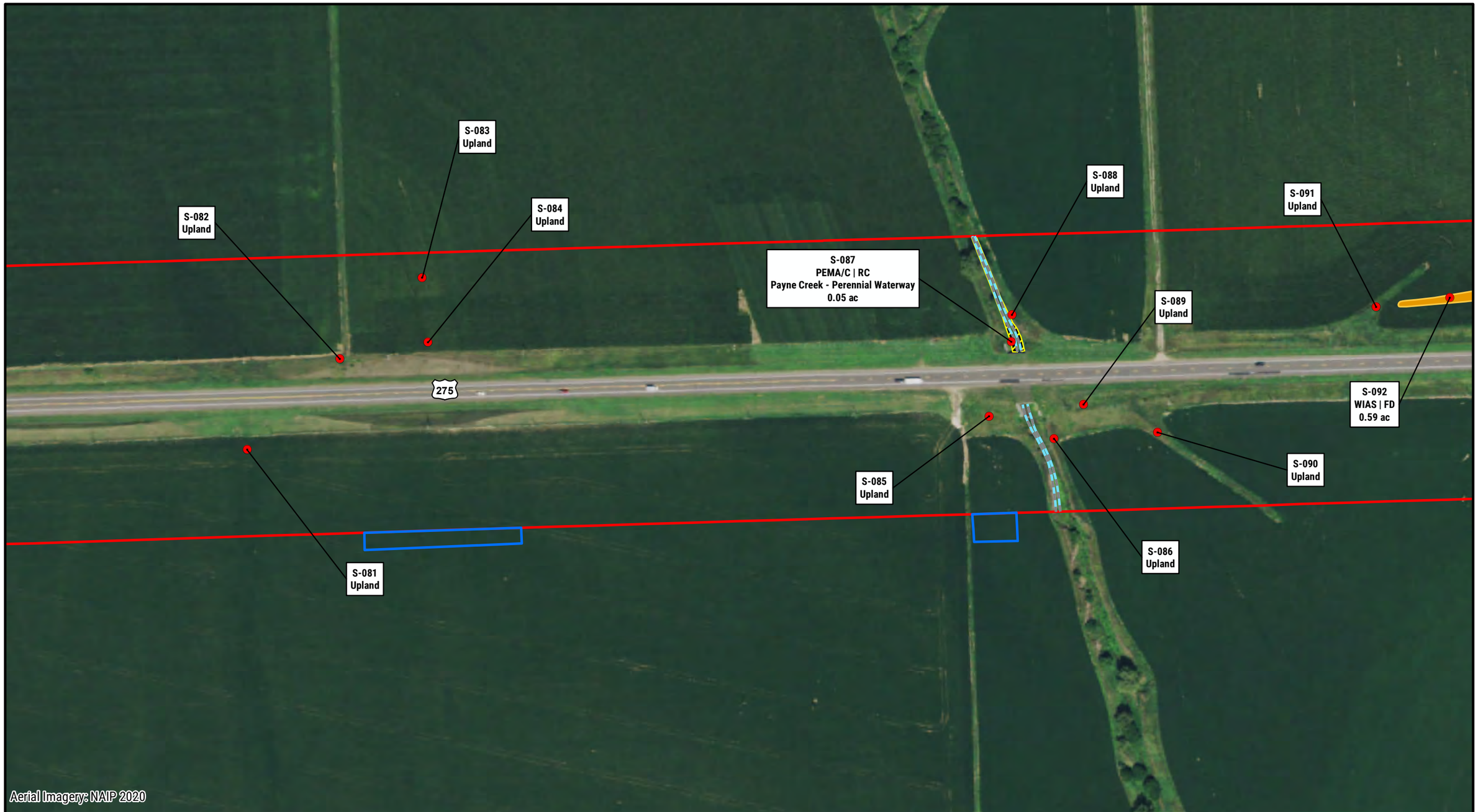
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 6 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

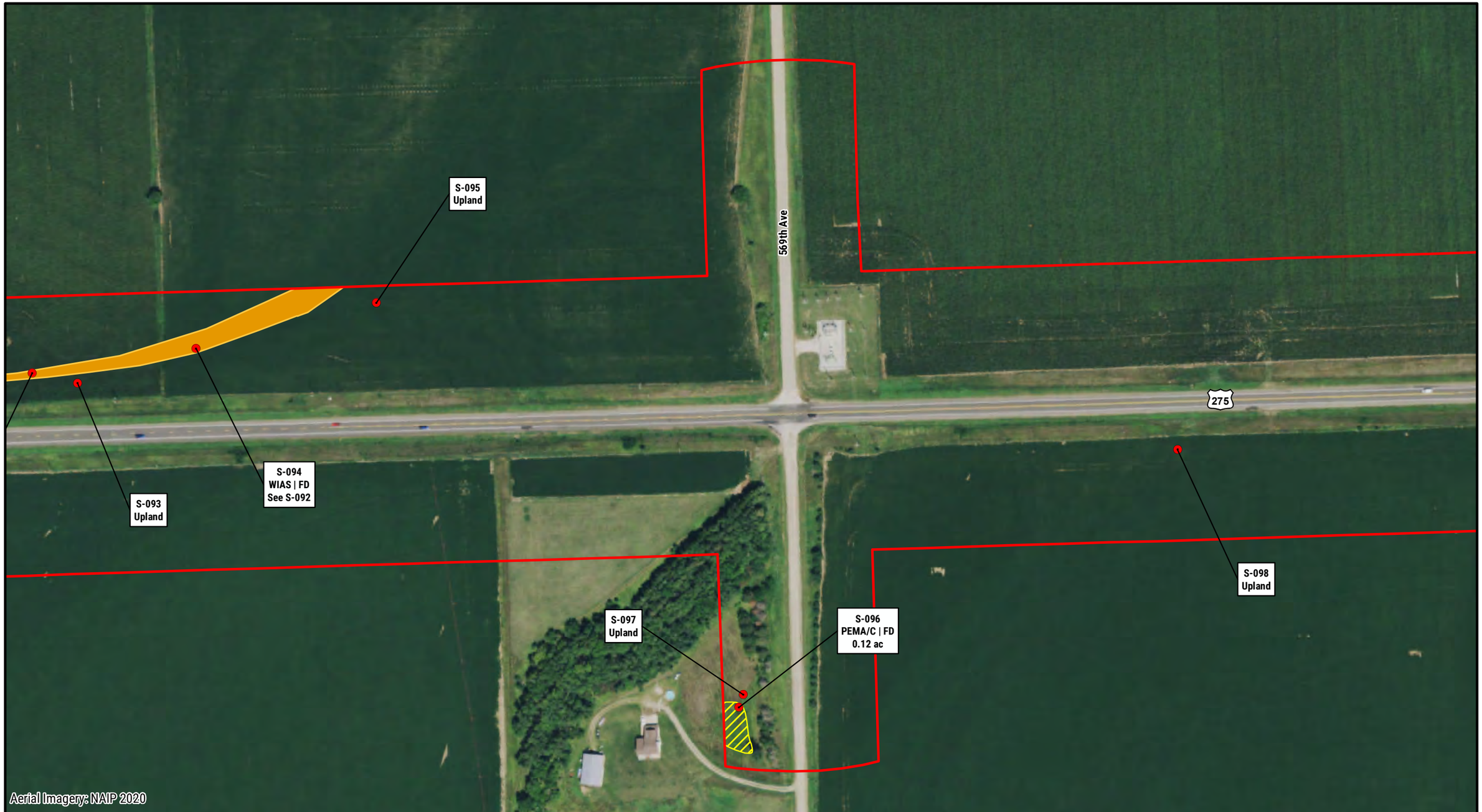
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 7 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
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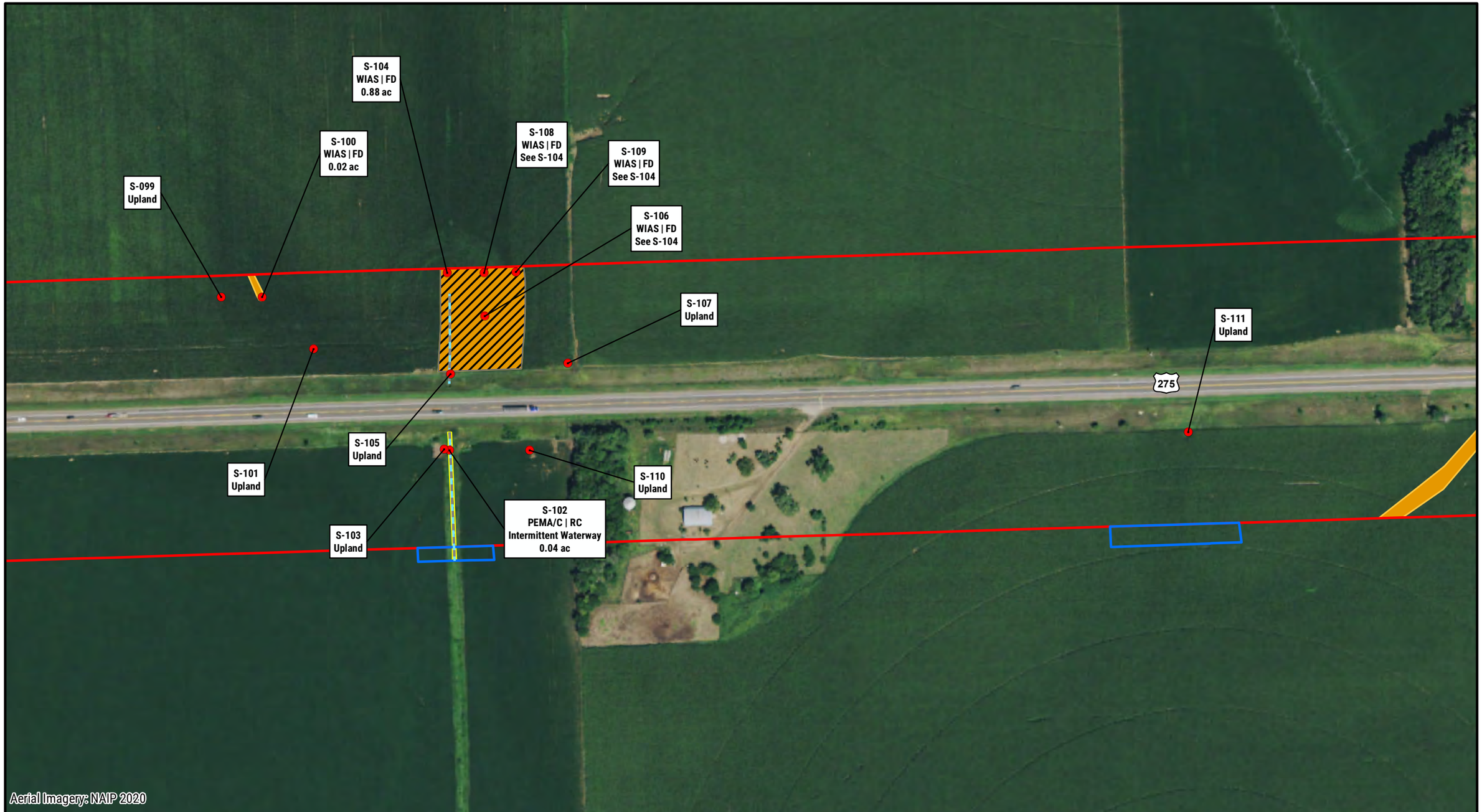
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 8 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA	
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA	
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS	
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS	

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 9 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA	
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA	
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS	
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS	

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

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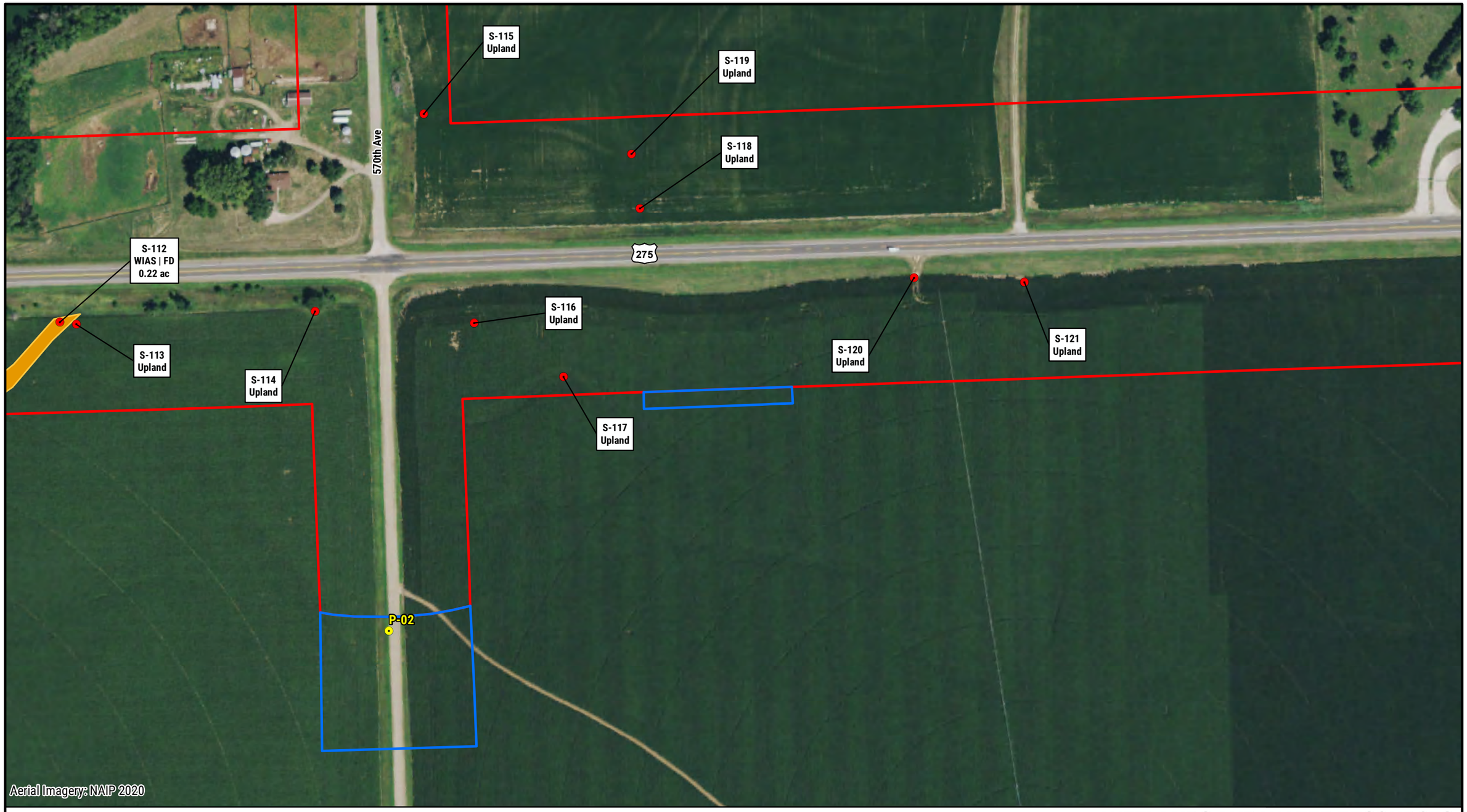
FIGURE 3 SHEET 10 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA	
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA	
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS	
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS	

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 11 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

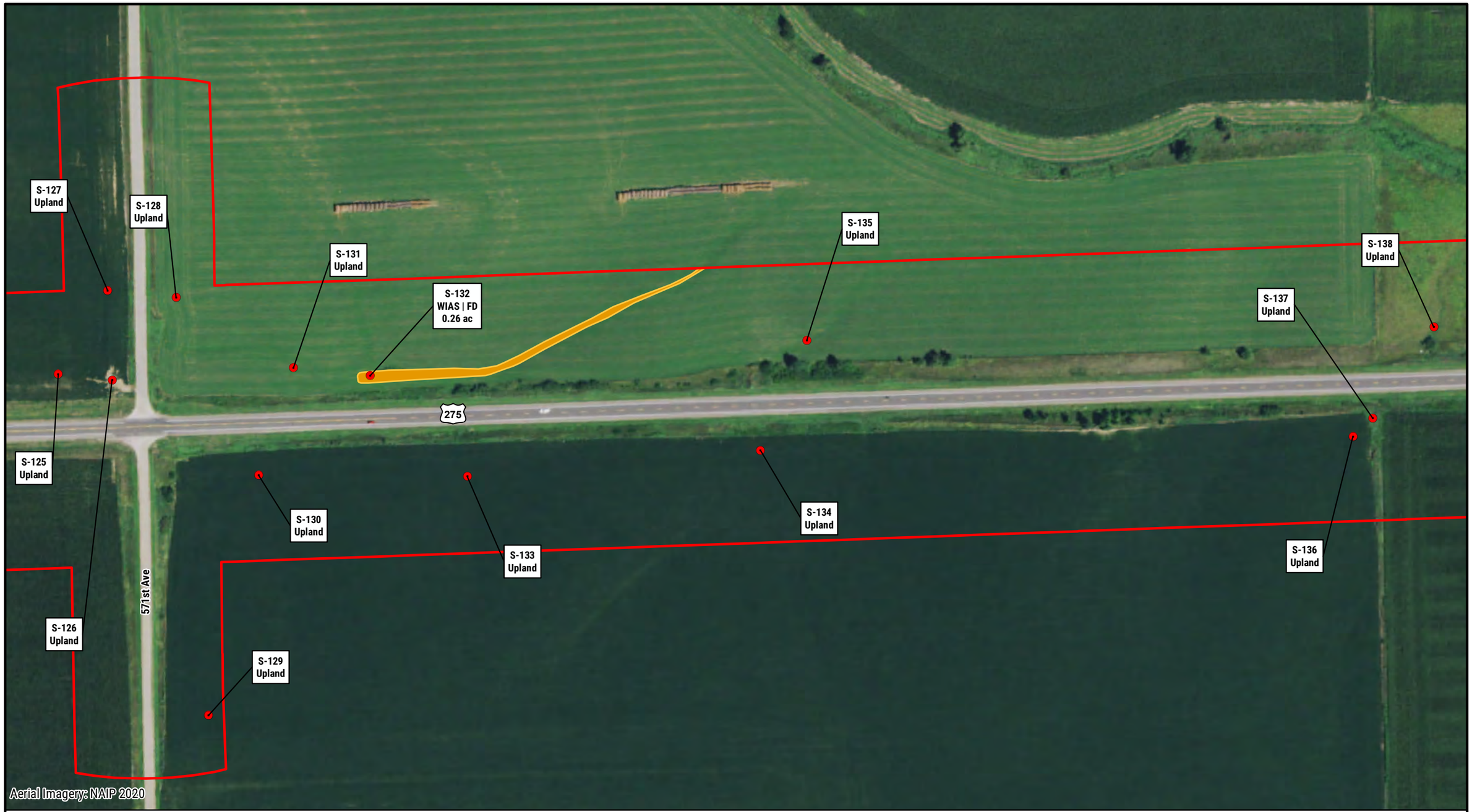
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 12 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

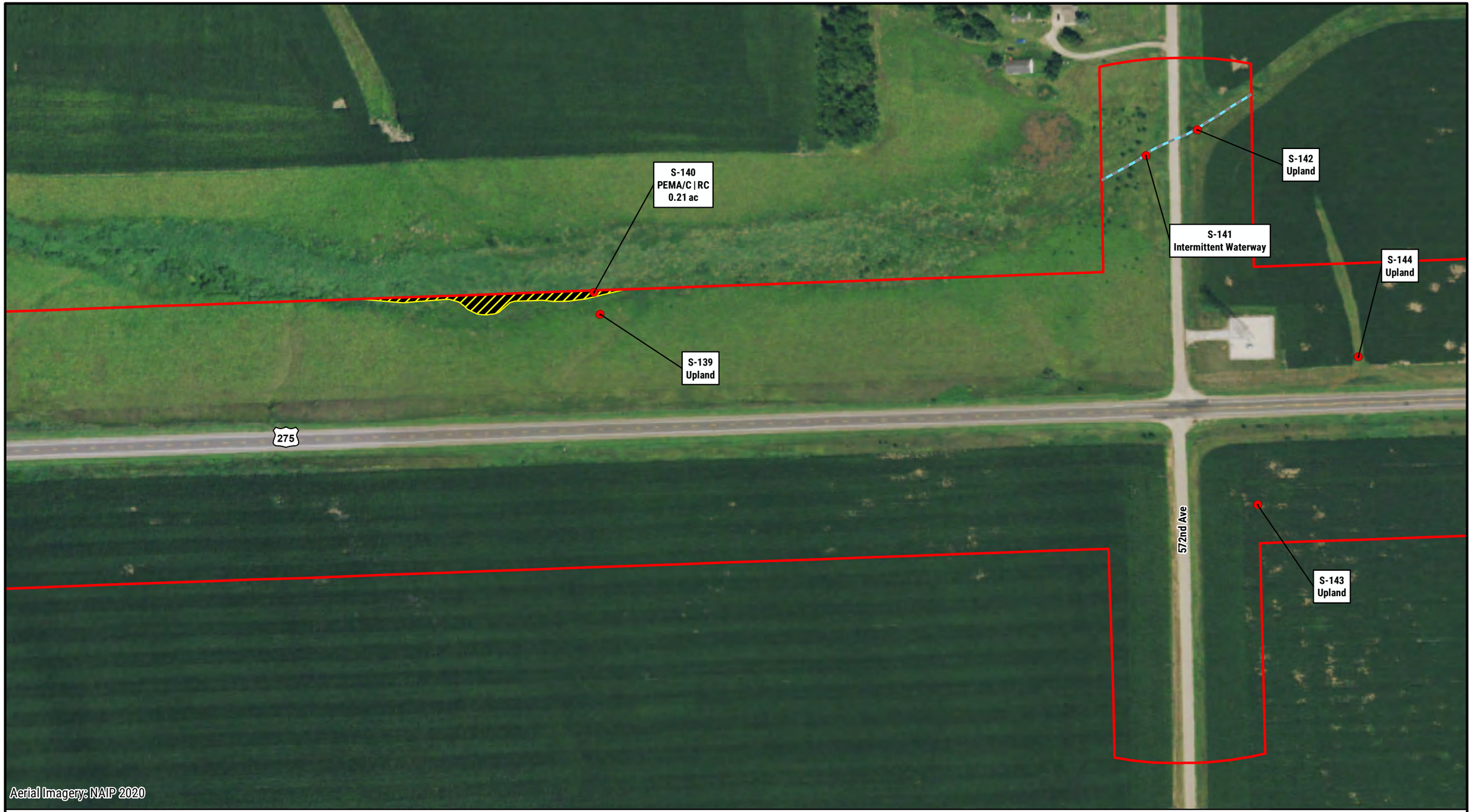
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 13 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

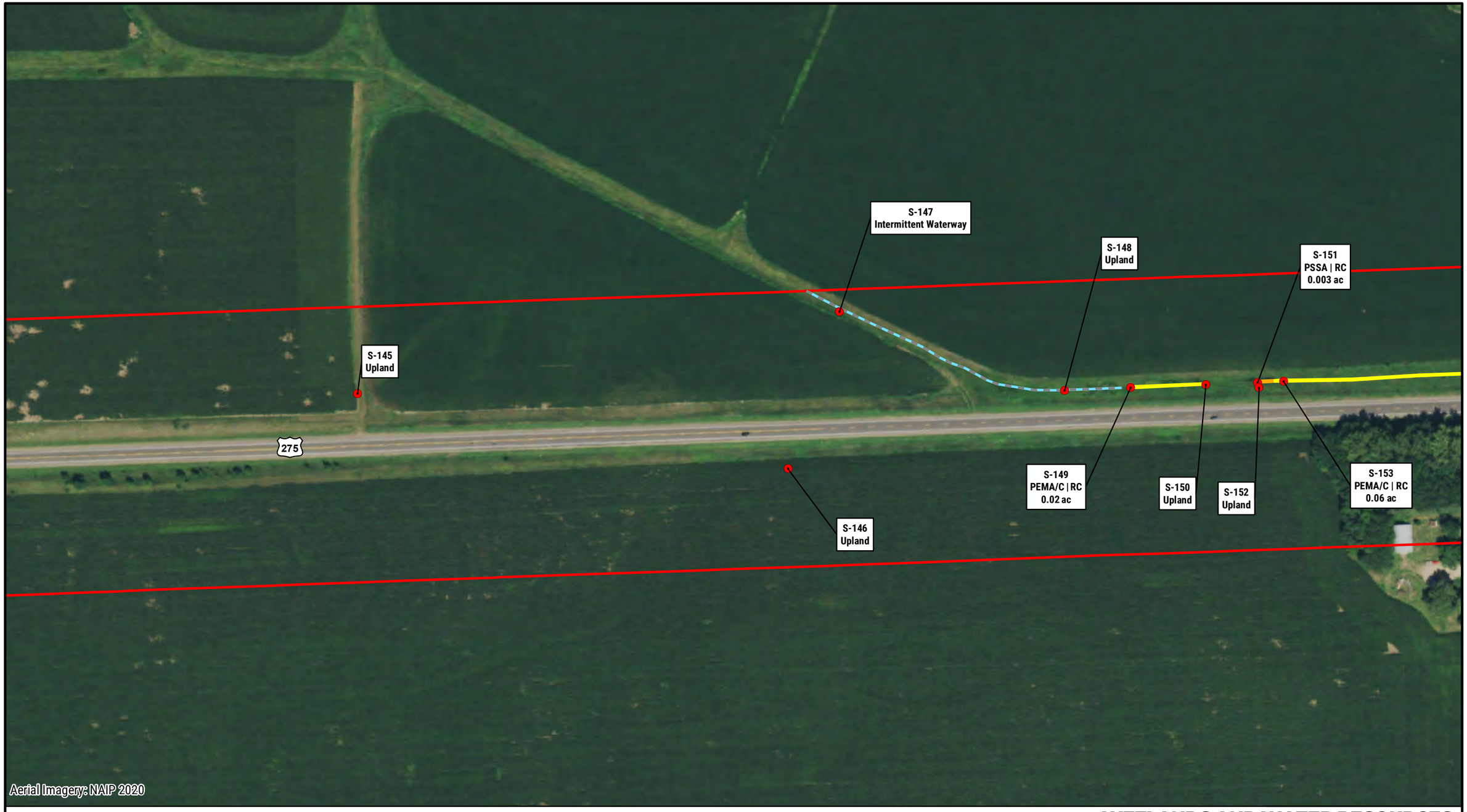
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 14 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS

N

0 100 200
FEET

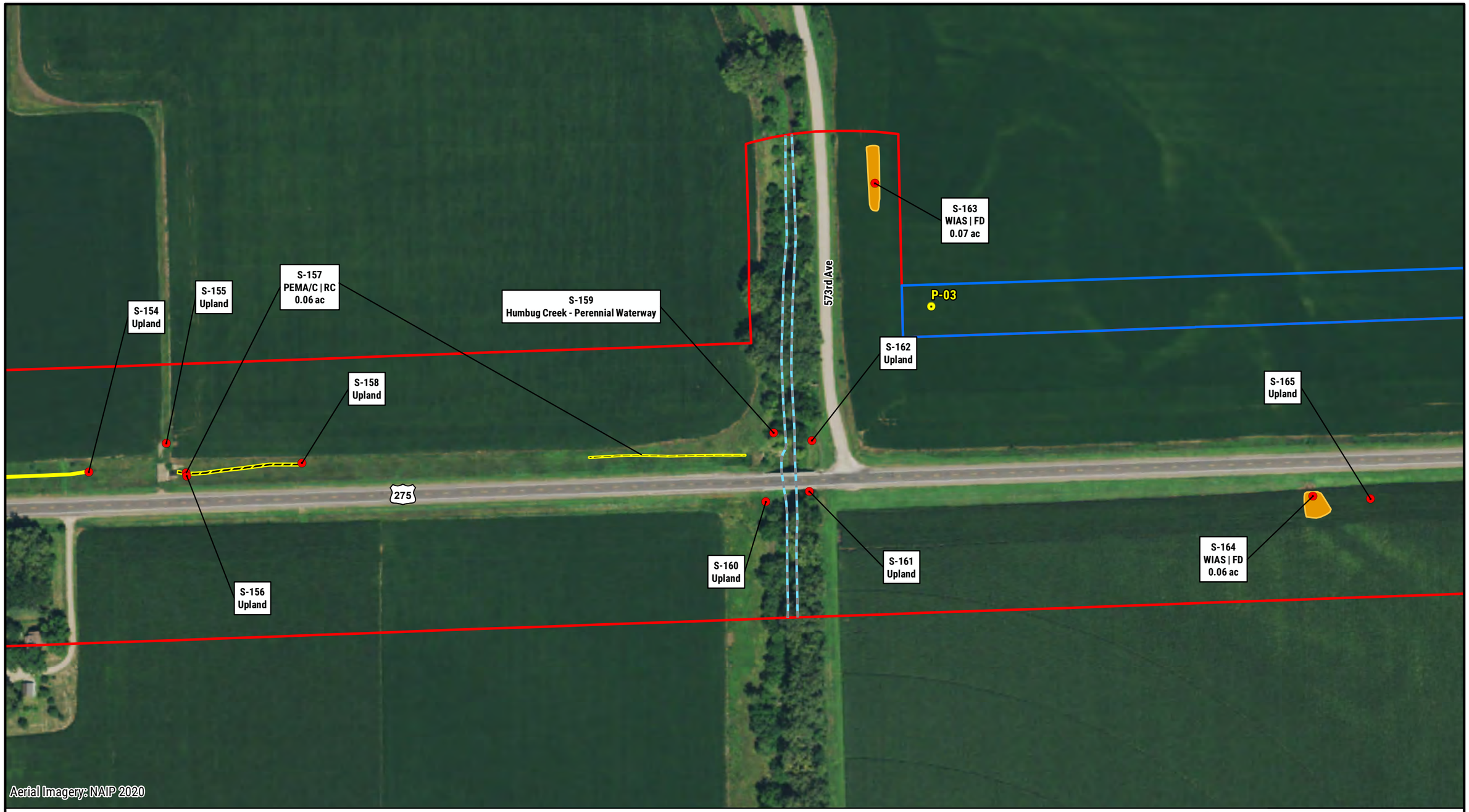
Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 12/14/2021

FIGURE 3 SHEET 15 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

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FIGURE 3 SHEET 16 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA	
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA	
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS	
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS	

N

0 100 200
FEET

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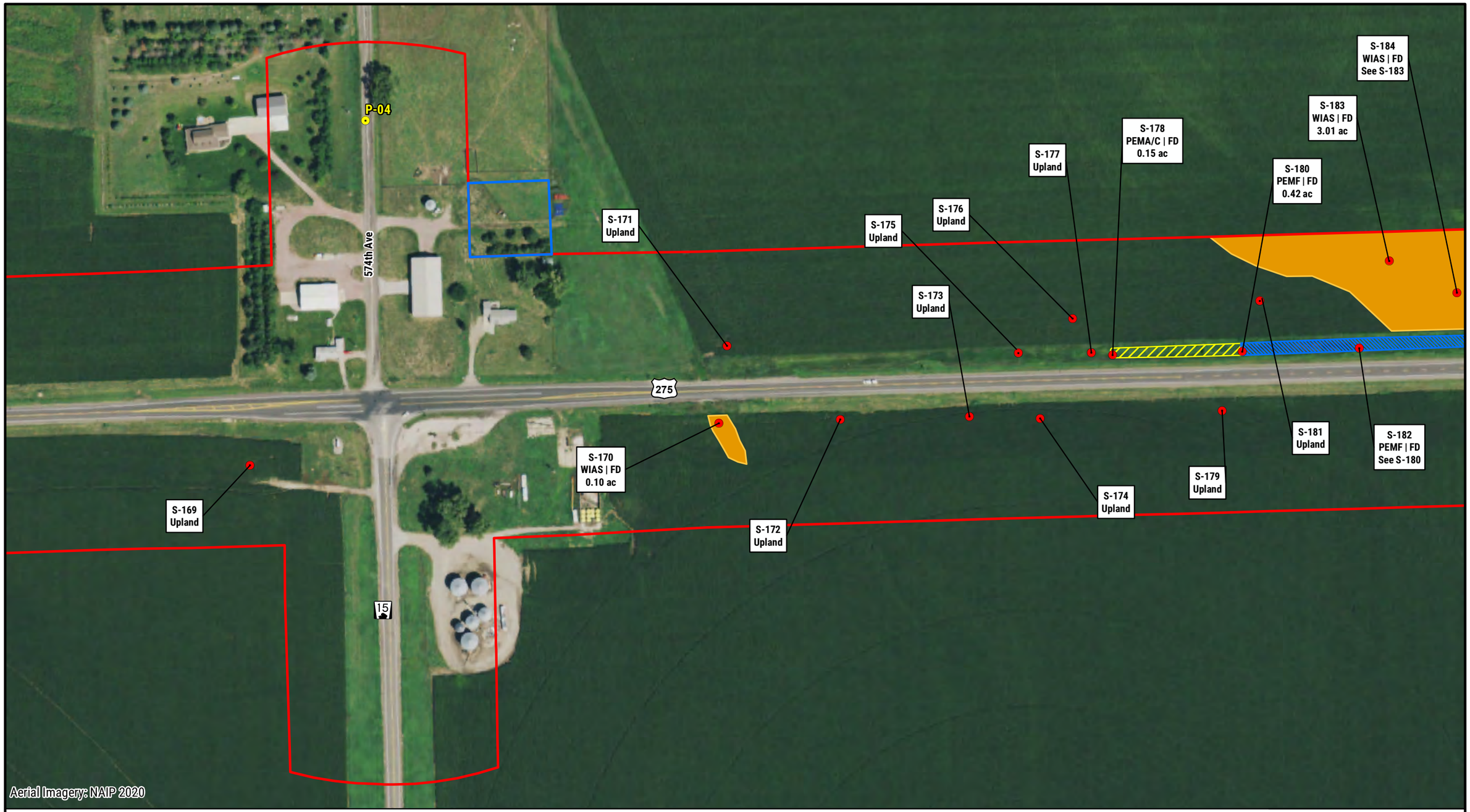
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 17 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 18 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA	
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA	
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS	
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS	

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
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FIGURE 3 SHEET 19 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021

S-200 Upland
S-206 PEMA/C | RC Intermittent Waterway 0.14 ac
S-199 Upland
S-197 Upland
S-198 Upland
S-201 Upland
S-205 Upland
S-204 PEMA/C | RC 0.51 ac
S-203 Upland
S-202 WIAS | FD 0.24 ac
575th Ave
S-207 Upland
S-208 PEMA/C | FD 0.86 ac
S-209 Upland
S-210 WIAS | FD 0.07 ac
S-211 Upland
S-212 WIAS | FD 0.12 ac
S-213 Upland
S-214 WIAS | FD 0.17 ac
S-215 WIAS | FD 0.24 ac
S-216 Upland
S-217 Upland
S-218 WIAS | FD 0.87 ac
S-219 WIAS | FD See S-218
S-220 Upland
S-221 Upland
S-222 PEMA/C | RC 0.01 ac
S-223 Upland
S-224 Upland
S-225 PEMA/C | RC Intermittent Waterway 0.03 ac
S-226 Upland
S-227 Upland
S-228 PEMA/C | RC 1.57 ac
S-229 Upland
275

Aerial Imagery: NAIP 2020

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

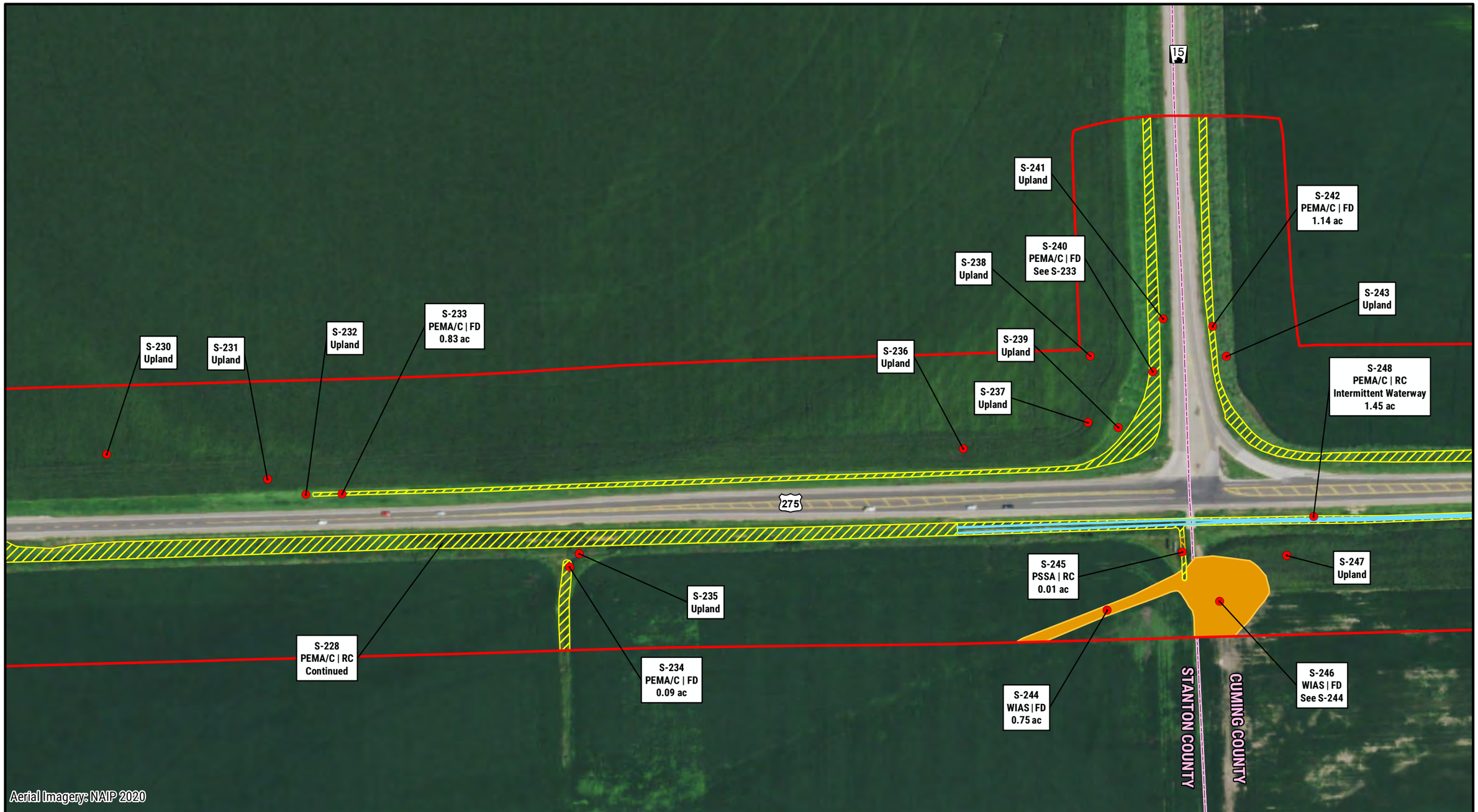
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 20 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA	
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA	
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS	
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS	

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
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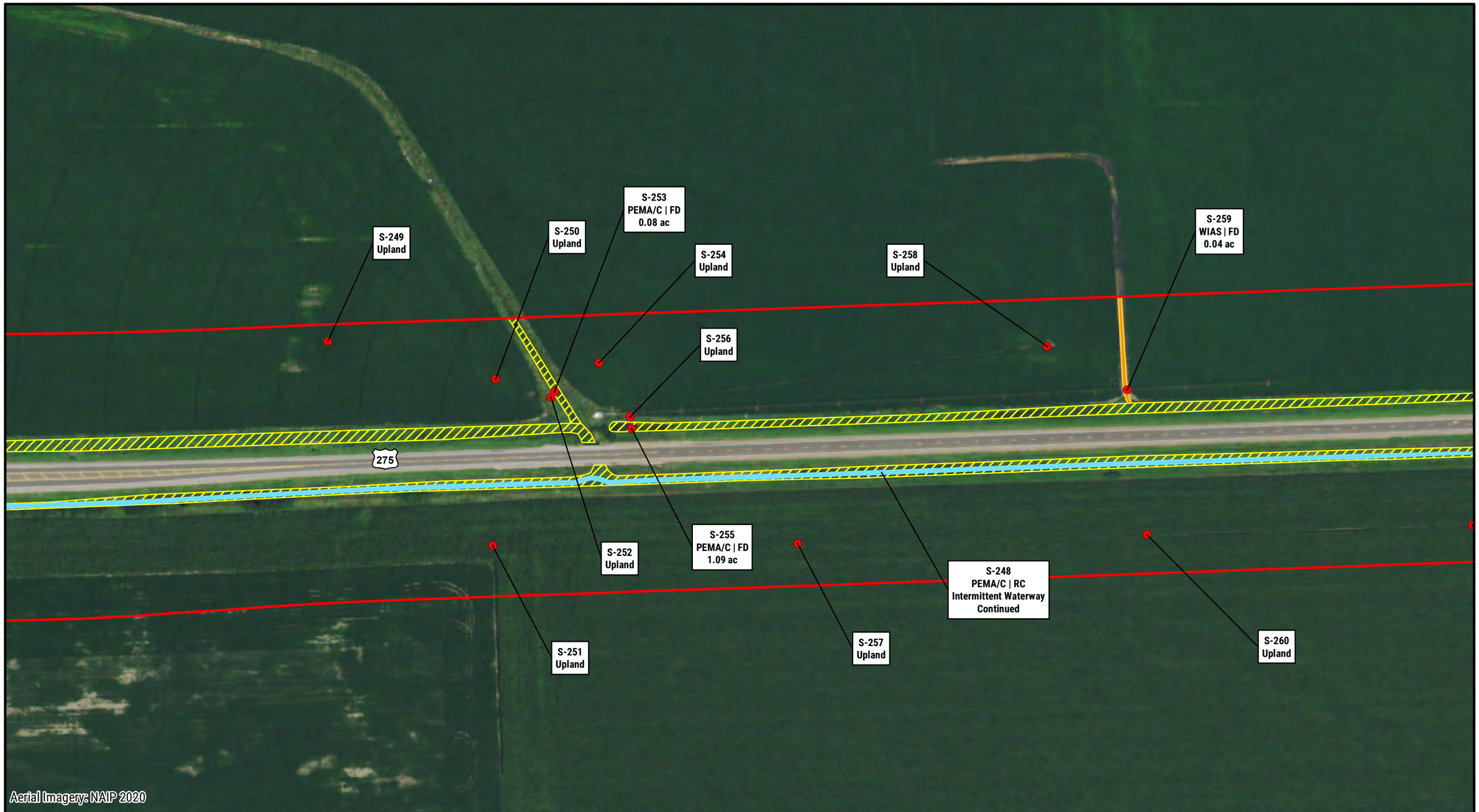
DATE: 12/14/2021

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

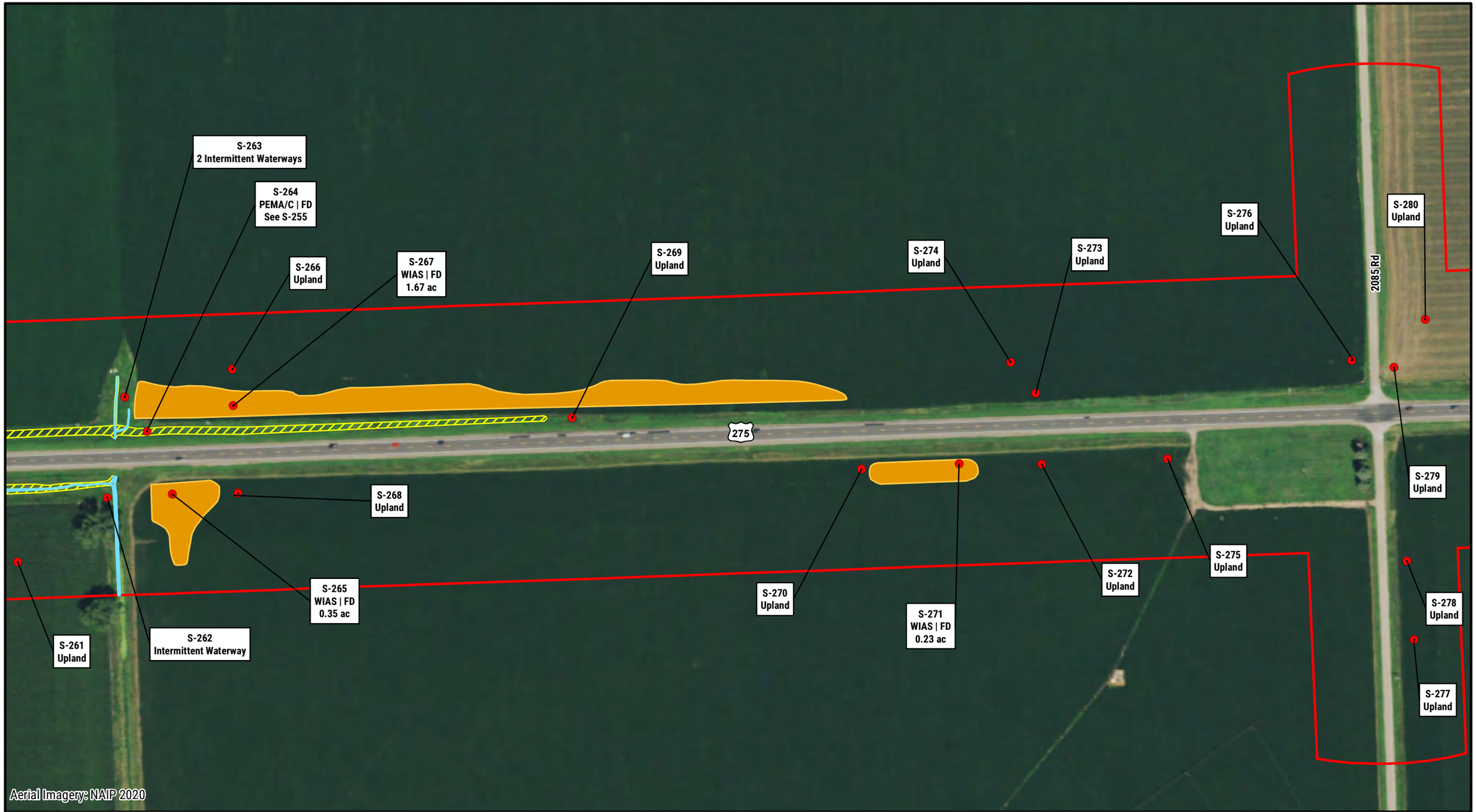
Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 12/14/2021

FIGURE 3 SHEET 22 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA	
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA	
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS	
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS	

N

0 100 200
FEET

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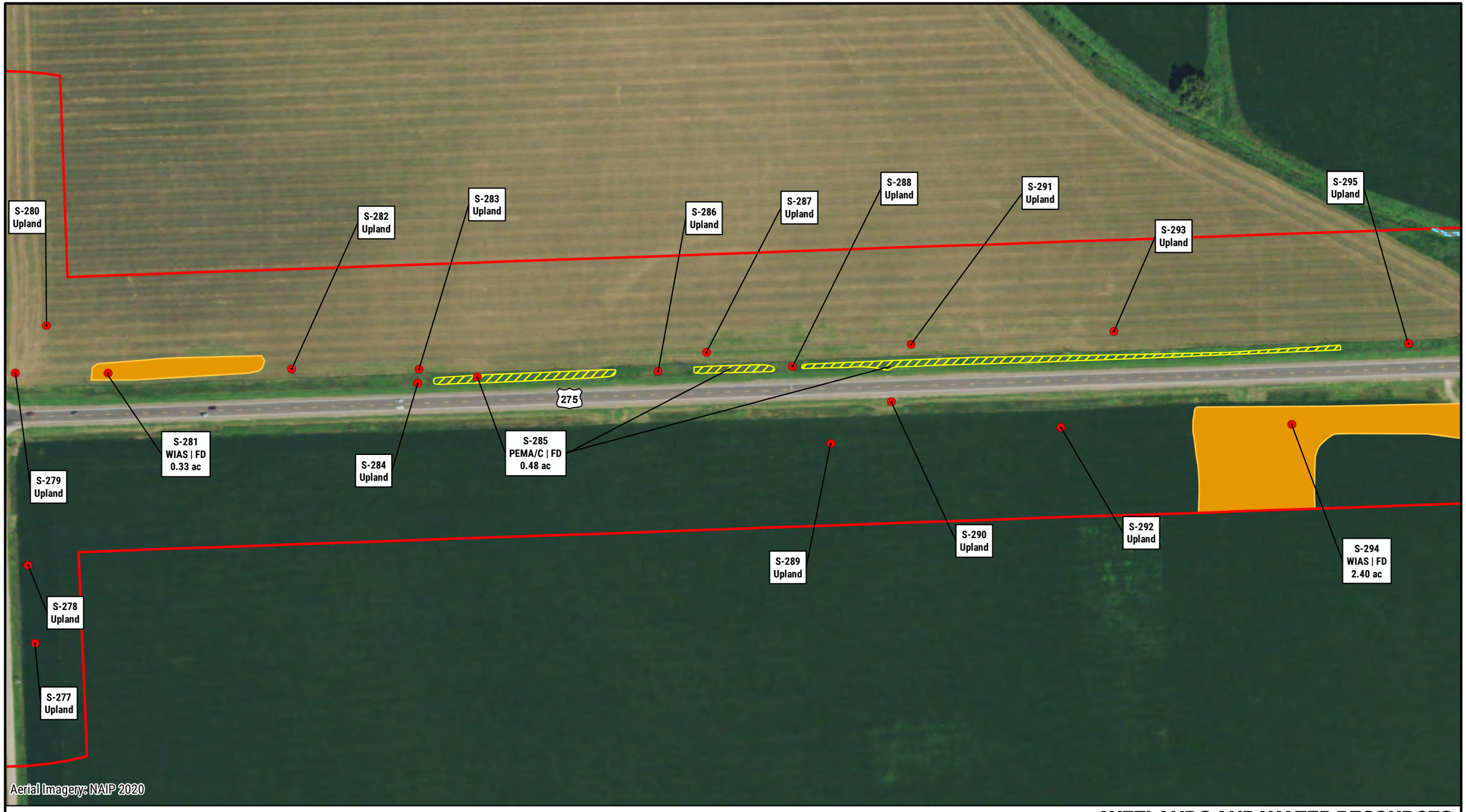
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 23 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
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- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

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FIGURE 3 SHEET 24 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021

S-300
Sand Creek - Perennial Waterway

3rd Rd

S-301
Upland

S-296
Upland

S-297
Upland

S-306
Upland

S-305
Upland

S-310
Upland

S-309
PEMA/C | RC
0.01 ac

S-313
Upland

S-314
Upland

S-315
Upland

S-316
WIAS | FD
0.28 ac

S-320
Upland

S-321
Upland

S-311
Upland

275

S-307
Upland

S-312
PEMA/C | FD
0.55 ac

S-308
PEMA/C | RC
Ephemeral Waterway
0.02 ac

S-317
PEMA/C | FD
0.06 ac

S-303
Upland

S-304
Upland

S-298
WIAS | FD
See S-294

S-302
Upland

S-299
Upland

S-318
Upland

S-319
WIAS | FD
1.95 ac

S-322
Upland

Aerial Imagery: NAIP 2020

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
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- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
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FIGURE 3 SHEET 25 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA	
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA	
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS	
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS	

N

0 100 200
FEET

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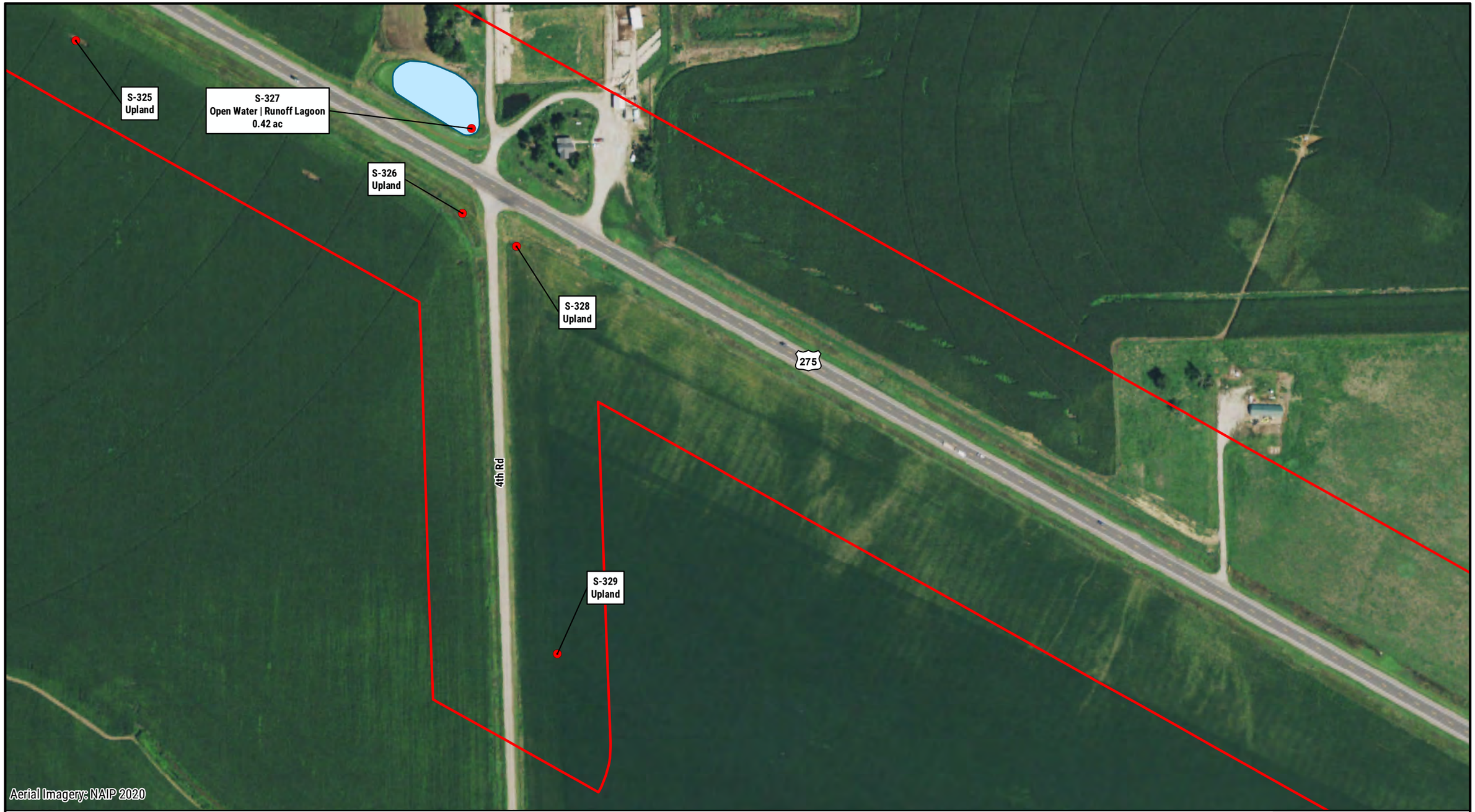
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 12/14/2021

FIGURE 3 SHEET 26 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

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FIGURE 3 SHEET 27 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA	
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA	
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS	
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS	

N

0 100 200
FEET

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RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 28 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- Expanded Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 29 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021

S-342
WIAS | FD
0.07 ac

S-345
Upland

S-344
Upland

S-350
Upland

S-346
Upland

S-348
PEMA/C | RC
0.35 ac

S-347
PFOA | RC
0.83 ac

S-349
PEMA/C | RC
Intermittent Waterway
See S-348

S-351
PEMA/C | FD
0.16 ac

S Rd

S-352
Upland

S-353
Upland

275

S-354
Upland

S-355
Upland

S-357
PEMA/C | FD
0.04 ac

S-356
WIAS | FD
0.18 ac

S-358
Upland

S-359
WIAS | FD
0.36 ac

S-360
Upland

S-361
Upland

S-362
PEMA/C | FD
0.13 ac

S-363
Upland

S-364
Upland

S-365
Upland

S-366
Open Water | Runoff Lagoon
1.01 ac

Aerial Imagery: NAIP 2020

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
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- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 3 SHEET 30 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA	
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA	
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N

0 100 200
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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
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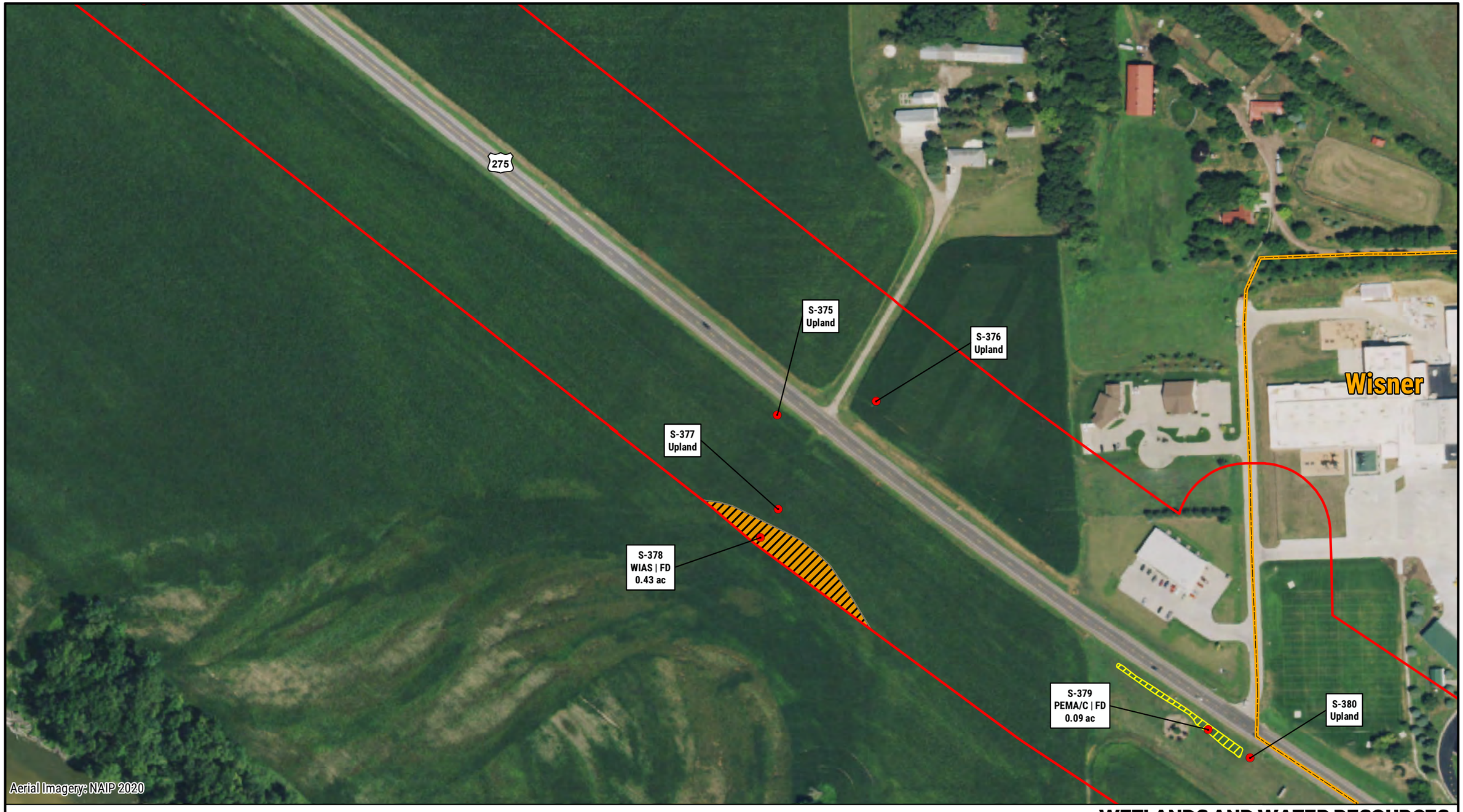
FIGURE 3 SHEET 31 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	County Boundary	PEMF	PSSA	
Sample Point	Study Area	Open Water	JD PEMF	JD PSSA	
Photo Point	Expanded Study Area	PEMA/C	PFOA	WIAS	
Channel	Village Boundary	JD PEMA/C	JD PFOA	JD WIAS	

N

0 100 200
FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

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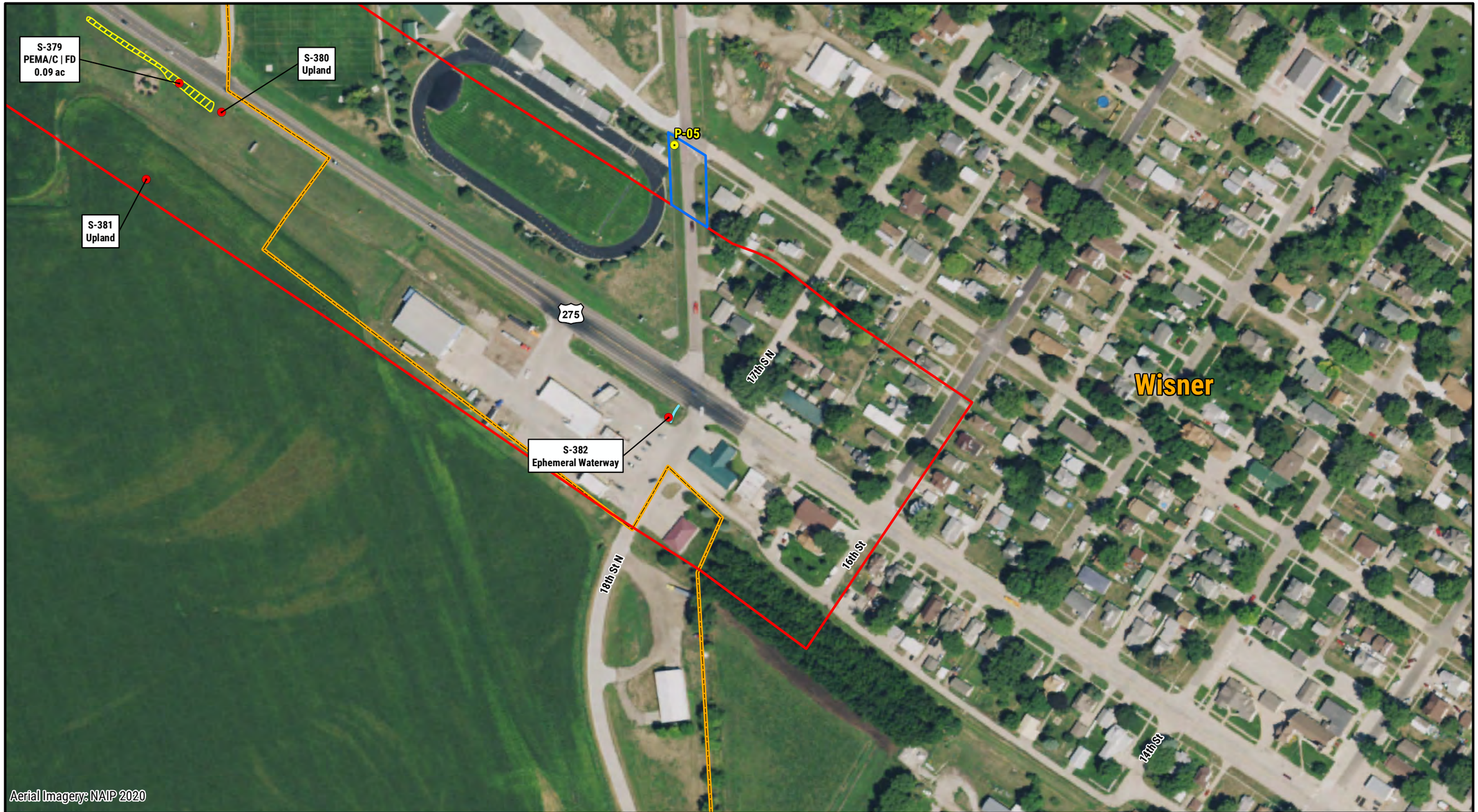
FIGURE 3 SHEET 32 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

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- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
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N

0 100 200
FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
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FIGURE 3 SHEET 33 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/14/2021

Appendix D

Site Photographs



Photo 383a (P-01). Emergent wetland area south of US-275 and west of 568th Avenue. Orientation west.



Photo 383b (P-01). Emergent wetland area south of US-275 and east of 568th Avenue. Orientation east.



Photo 384 (S-102). Emergent wetland fringe area adjacent to an intermittent waterway south of US-275 and east of 569th Avenue. Orientation south.



Photo 385 (P-02). Upland area south of US-275 on 570th Avenue. Orientation south.



Photo 386 (P-03). Upland area north of US-275 and east of 573rd Avenue. Orientation east.



Photo 387 (P-04). Upland area north of US-275 and east of 574th Avenue. Orientation southeast.



Photo 388 (P-05). Upland area north of US-275 and west of 18th Street. Orientation south.

Norfolk – Wisner
Wetland Delineation Report Addendum

Project Number: S-275-6(1052)
Control Number: 32319

December 2022

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

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1.0 Introduction 1
2.0 Methodology 1
3.0 Results 1

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Appendices

Appendix A, Figure 1 - Project Location
Appendix A, Figure 2 - Key Map
Appendix A, Figure 3 - Wetlands and Water Resources
Appendix B - Wetland Determination Data Forms
Appendix D - Site Photographs
Appendix E - Antecedent Precipitation Tool (APT)

Introduction

The Nebraska Department of Transportation (NDOT) proposes to expand U.S. Highway 275 (US-275) from a two-lane highway to a four-lane expressway along a 15.5-mile segment from just east of Nebraska Highway 57 to just northwest of Wisner, Nebraska (the Project). All Project activities would occur in Stanton and Cuming Counties, as shown in Appendix A, Figure 1 – Project Location.

This Wetland Delineation Report Addendum documents the occurrence of wetlands and water resources within 5 areas that extend beyond the study area documented in the 2019 Wetland Delineation Report as well as the 2021 addendum. These areas account for recent changes in roadway design and are labeled as "2022 Expanded Study Area" on Appendix A, Figure 3.

Methodology

On behalf of NDOT, HDR conducted wetland and water resource delineations in the 2022 Expanded Study Area on October 13, 2022, in accordance with the *1987 Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Environmental Laboratory, August 2010), and the *NDOT Wetland and Water Resource Procedure Document* (NDOT, December 2017).

Photo points and wetland boundaries were mapped in the field using global positioning system (GPS) technology and were classified according to *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., December 1979) and associated Nebraska Wetland Subclasses. Vegetation was classified according to *North American Digital Flora: National Wetland Plant List* (Lichvar et al., 2016). Non-wetland water resources (waterways/ponds) were also identified. Photographic documentation of observed wetlands and water resources was collected and is included in Appendix D.

Results

One new emergent wetland (S-387) was identified within the 2022 Expanded Study Area, two wetland resources increased in size or length, and one intermittent waterway (S-262) was expanded to the south. These expanded areas are shown in the excerpts of Table 1 and Table 2 from the 2019 Wetland Delineation Report and the 2021 addendum. Beyond the referenced tables, results are further detailed in: Appendix A, Figure 3, Appendix B Wetland Determination Data Forms, and Appendix D, Site Photographs.

Table 1. Wetlands

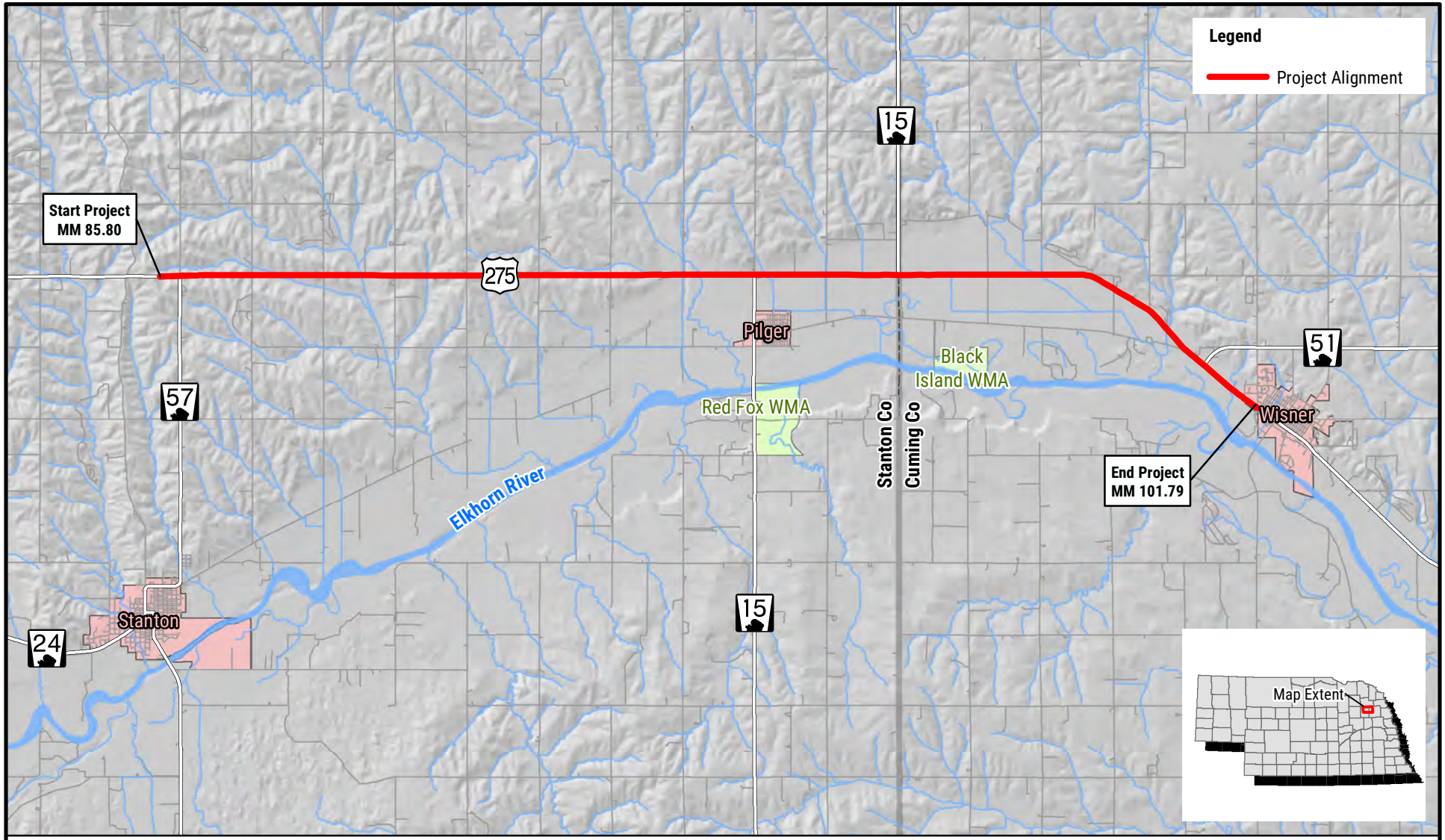
Sample ID[1]	Figure 3 Sheet No.	Wetland Classification		Area (acres)
		Cowardin[2]	Nebraska Subclass	
S-234	21	PEMA/C	Floodplain Depression	Previous: 0.09 New: 0.19
S-244, S-246, S-384	21	WIAS	Floodplain Depression	Previous: 0.75 New: 1.11
S-387	23	PEMA/C	Riverine Channel	Previous: N/A New: 0.004

Table 3. Water Resources

Sample ID	Figure 3 Sheet No.	Name	Type	Channel Width (feet)
S-262	23	Unnamed	Intermittent Waterway/Riverine Channel	2 - 4

Appendix A

Figures



NEBRASKA
DEPARTMENT OF TRANSPORTATION

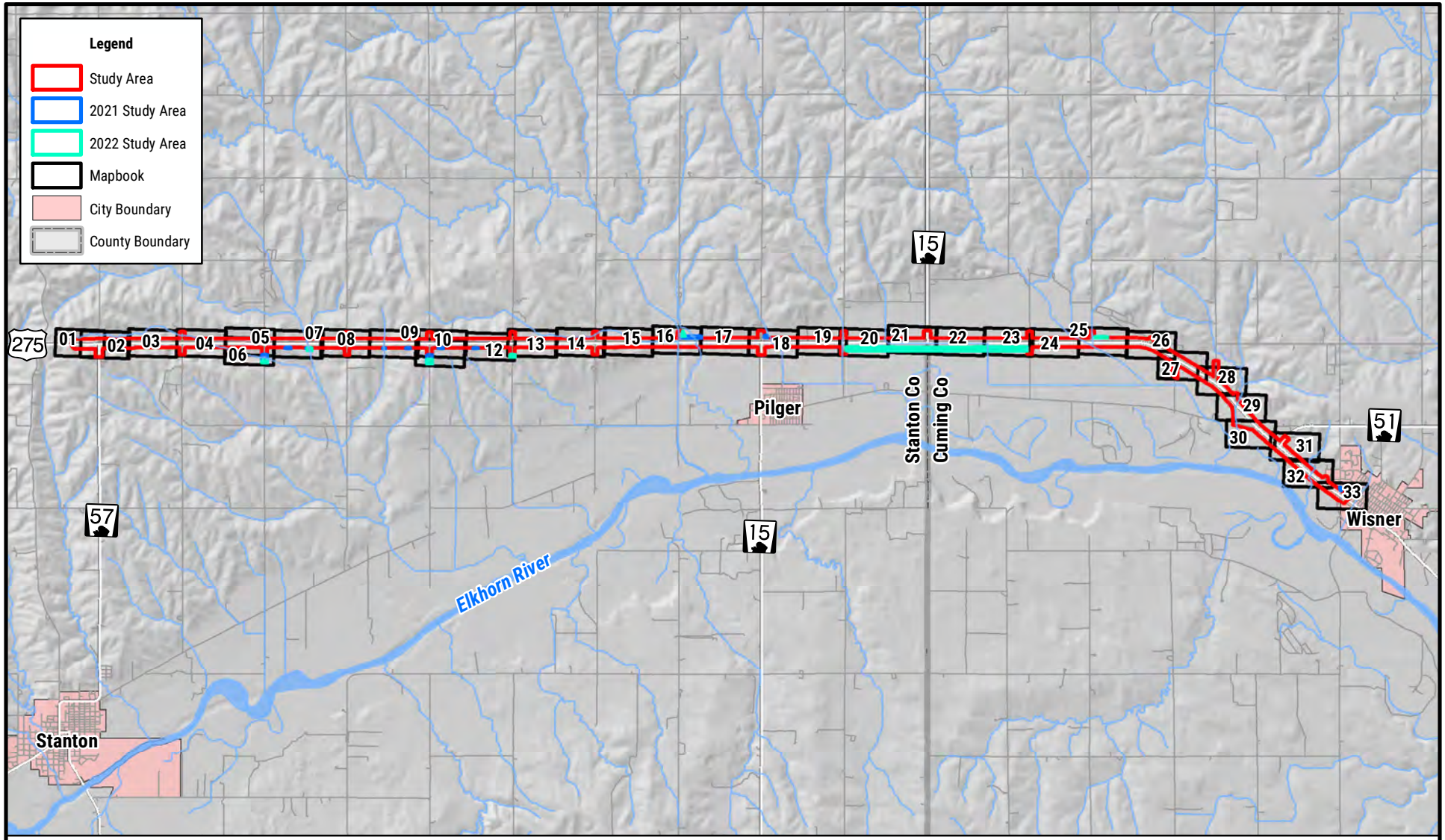
PROJECT LOCATION

NORFOLK - WISNER
PROJECT NO. S-275-6 (1052)
CONTROL NO. 32319

DATE: 12/14/2021

FIGURE 1

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\05_USACE_DELINEATION_COMMENTS\MAP_8X11_FIG_1_PROJECT_LOCATION_JD.MXD - USER: CMODRCIN - DATE: 12/14/2021



NEBRASKA
DEPARTMENT OF TRANSPORTATION

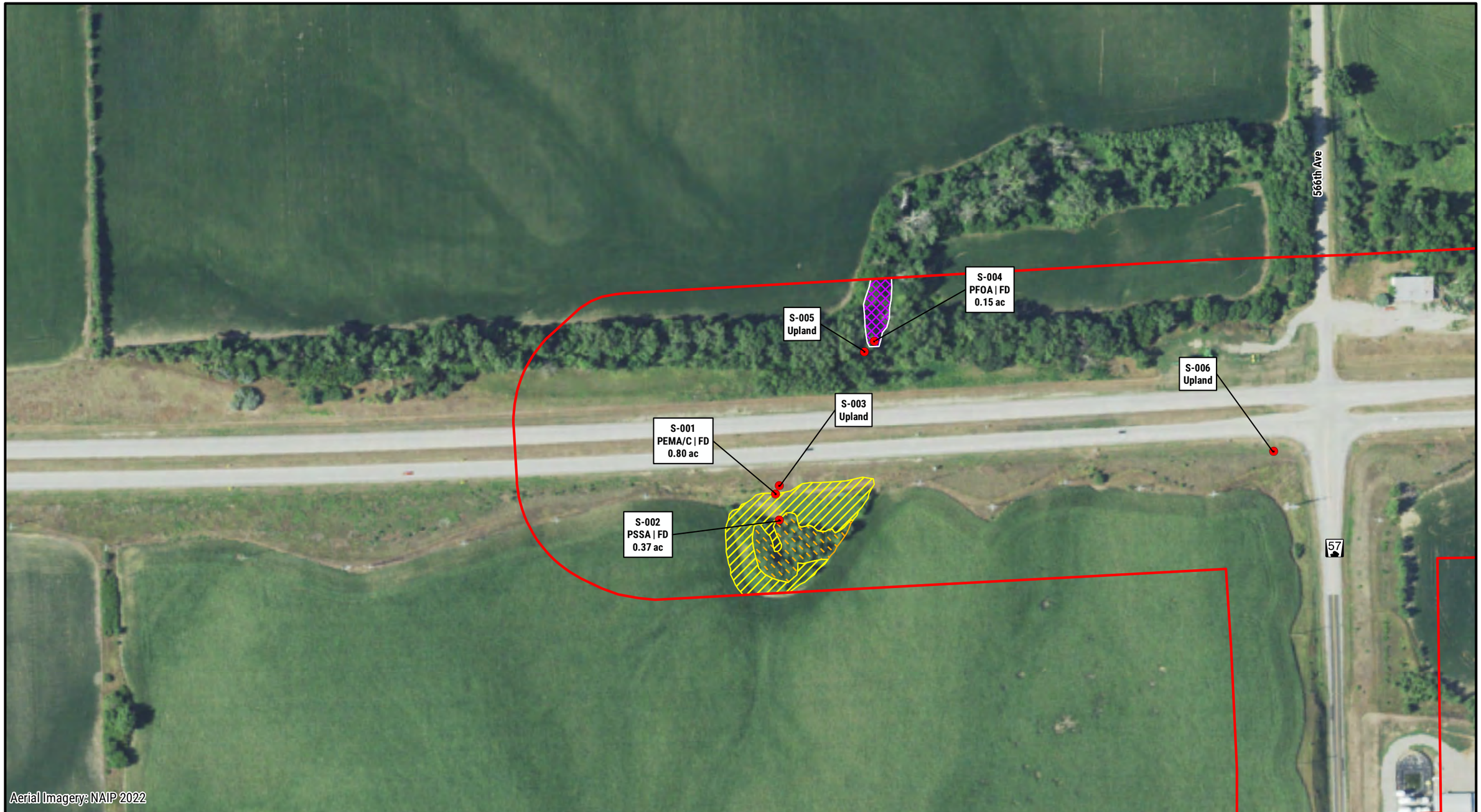
0 0.75 1.5
MILES

N

KEY MAP
NORFOLK - WISNER
PROJ. NO. S-275-6(1052)
CONTROL NO. 32319

FIGURE 2

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG2_KEY_MAP.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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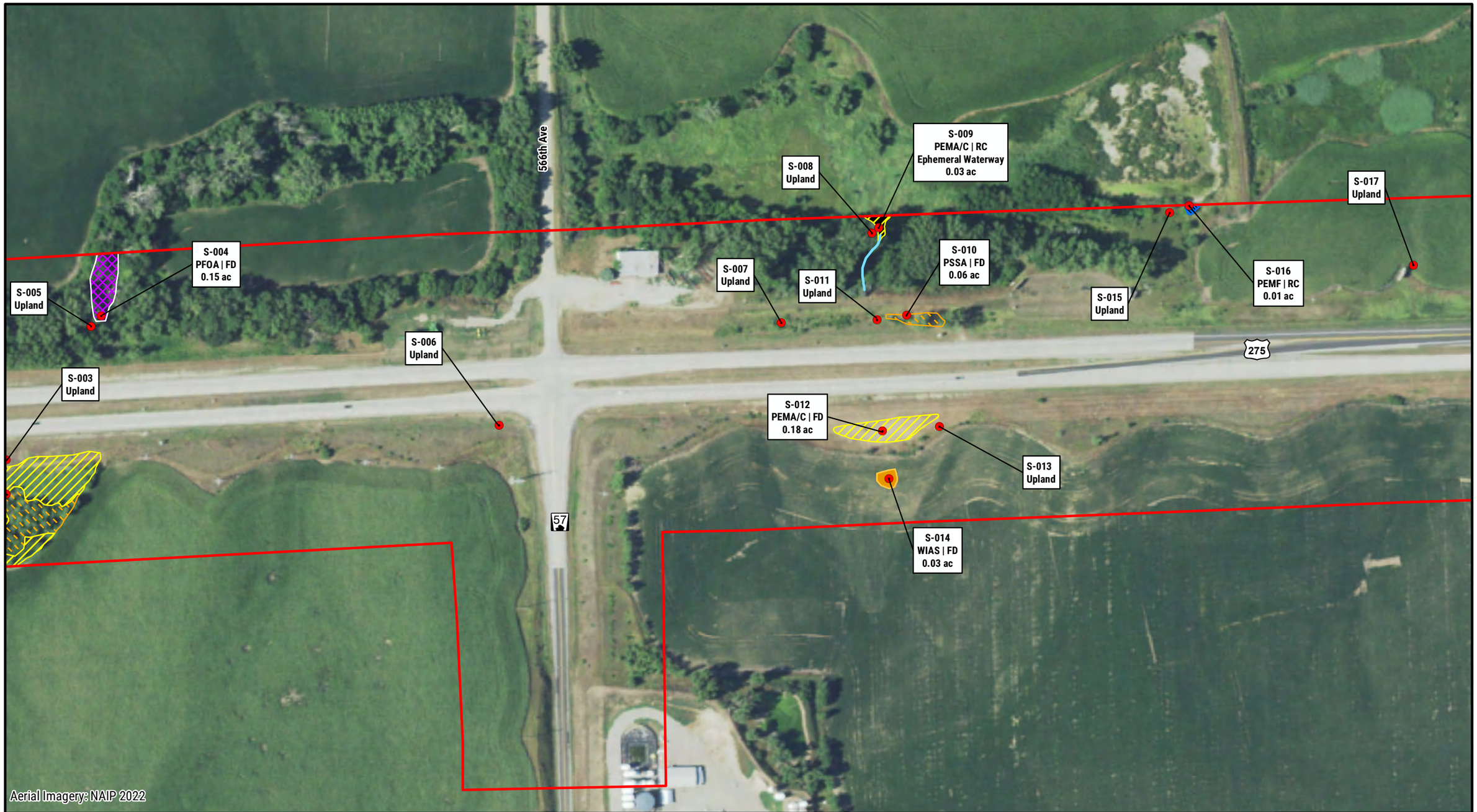
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 1 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

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- 2021 Study Area
- 2022 Study Area
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- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
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N

0 100 200
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RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 2 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

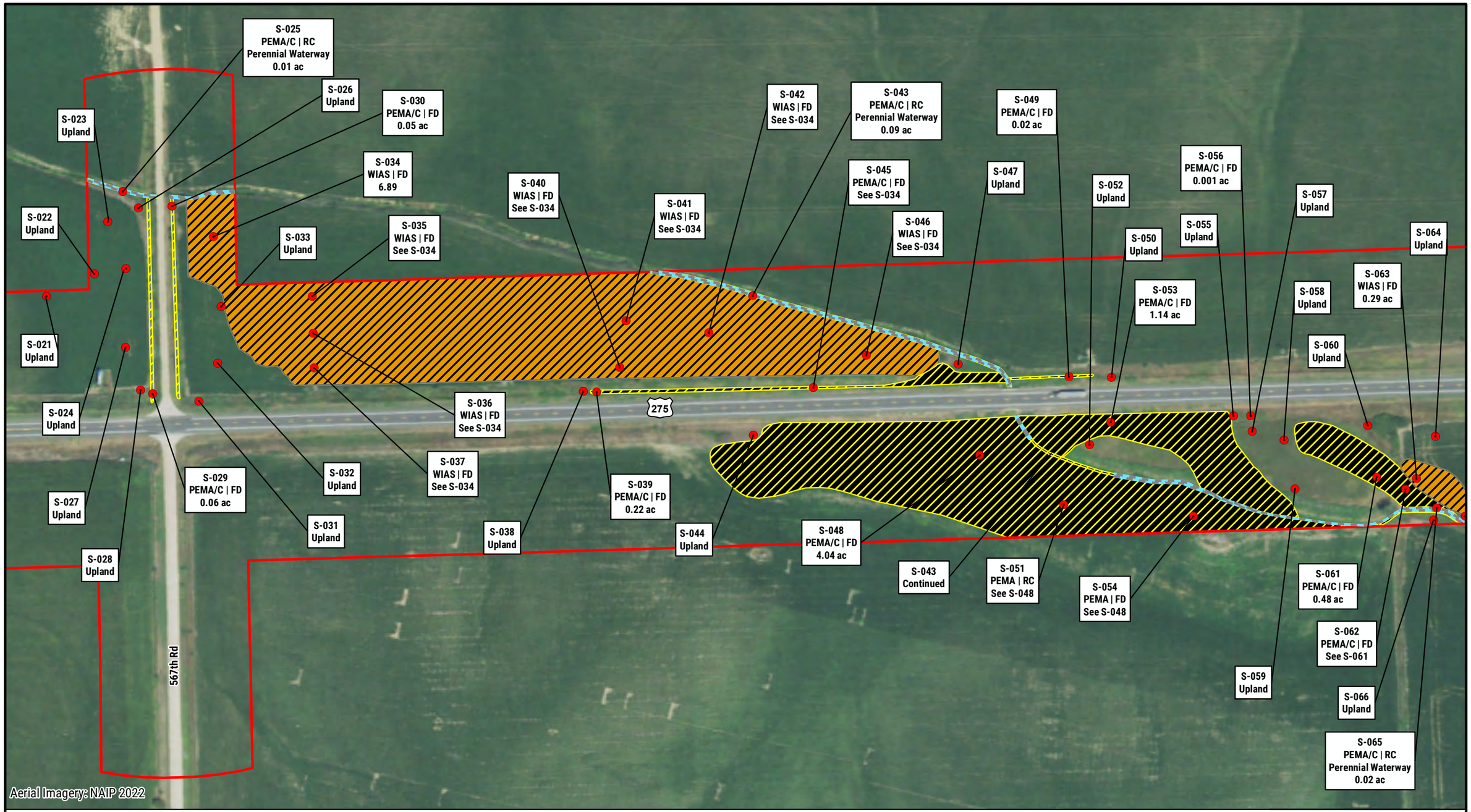
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 3 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
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- JD PSSA
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N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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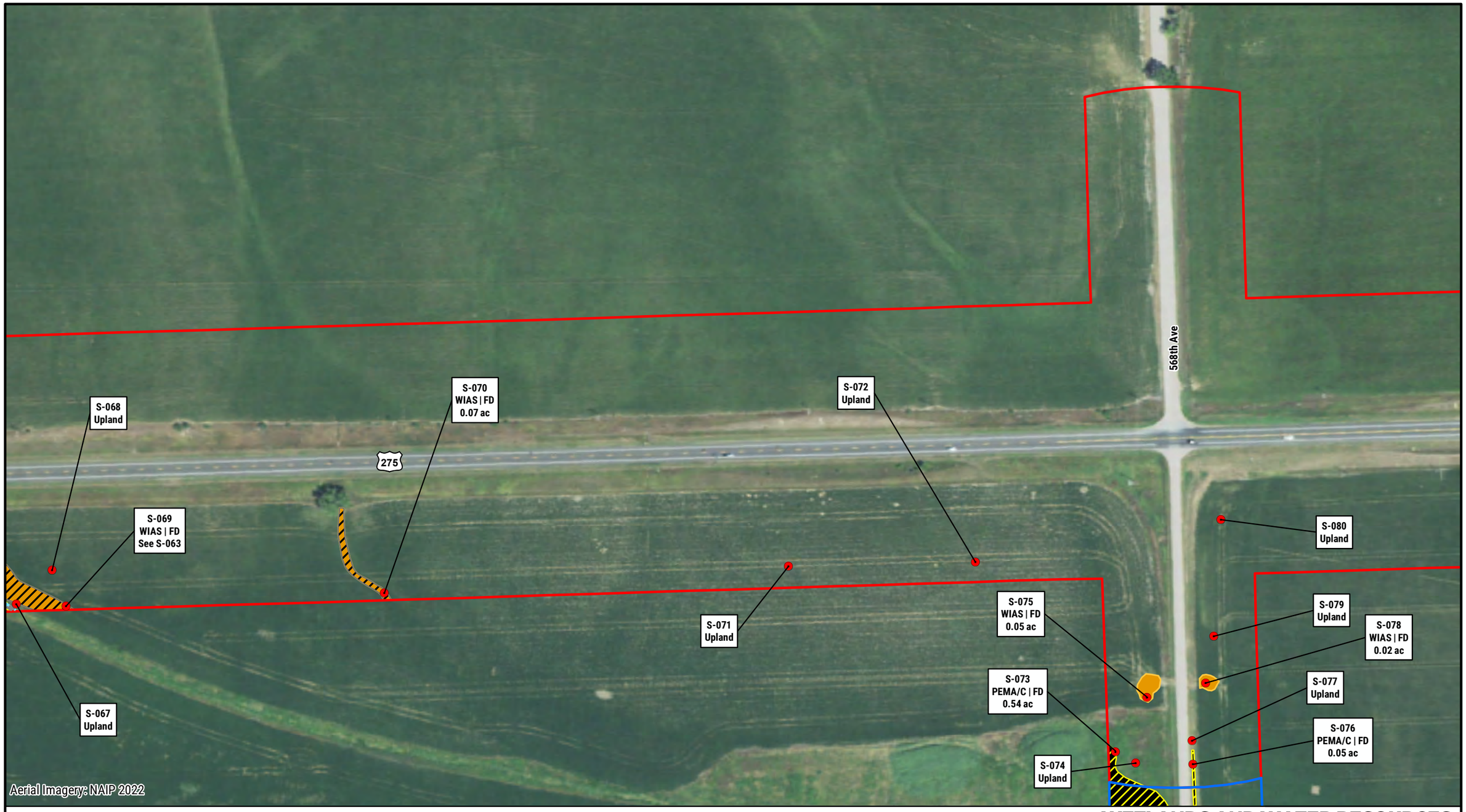
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
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- Study Area
- 2021 Study Area
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0 100 200
FEET

Nebraska Wetland Subclass Note:
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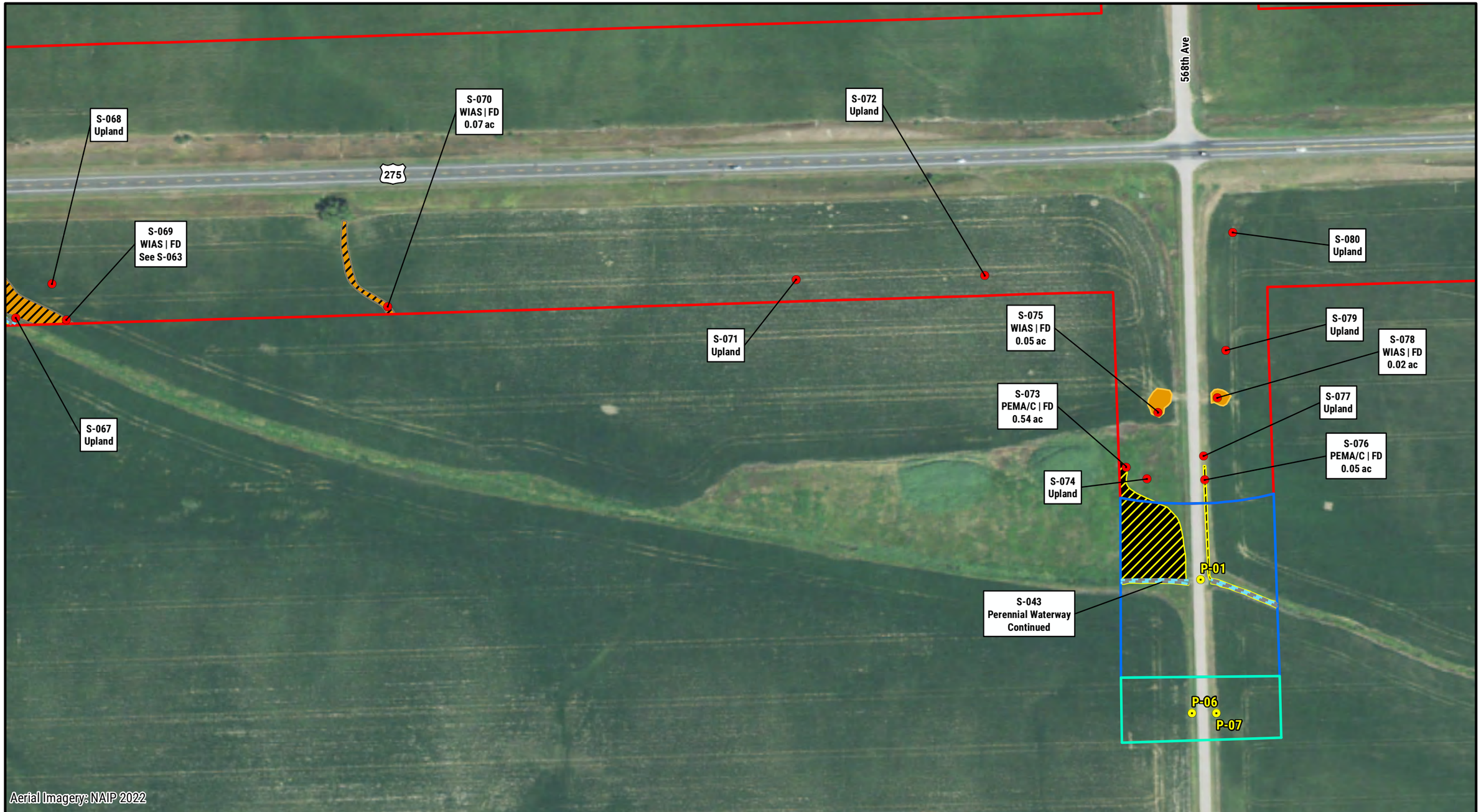
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 5 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
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- Channel
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N

0 100 200
FEET

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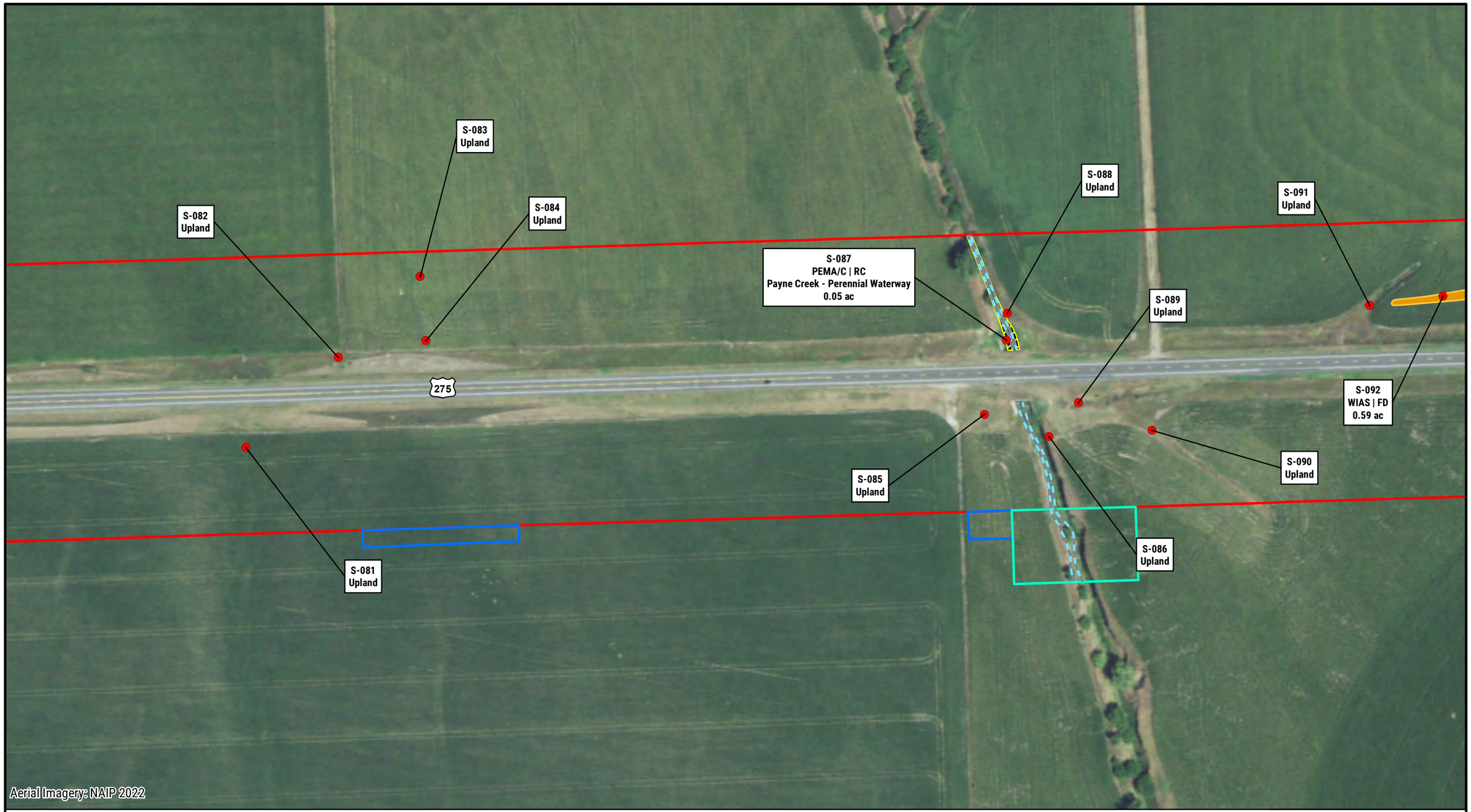
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 6 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
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- Study Area
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0 100 200
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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

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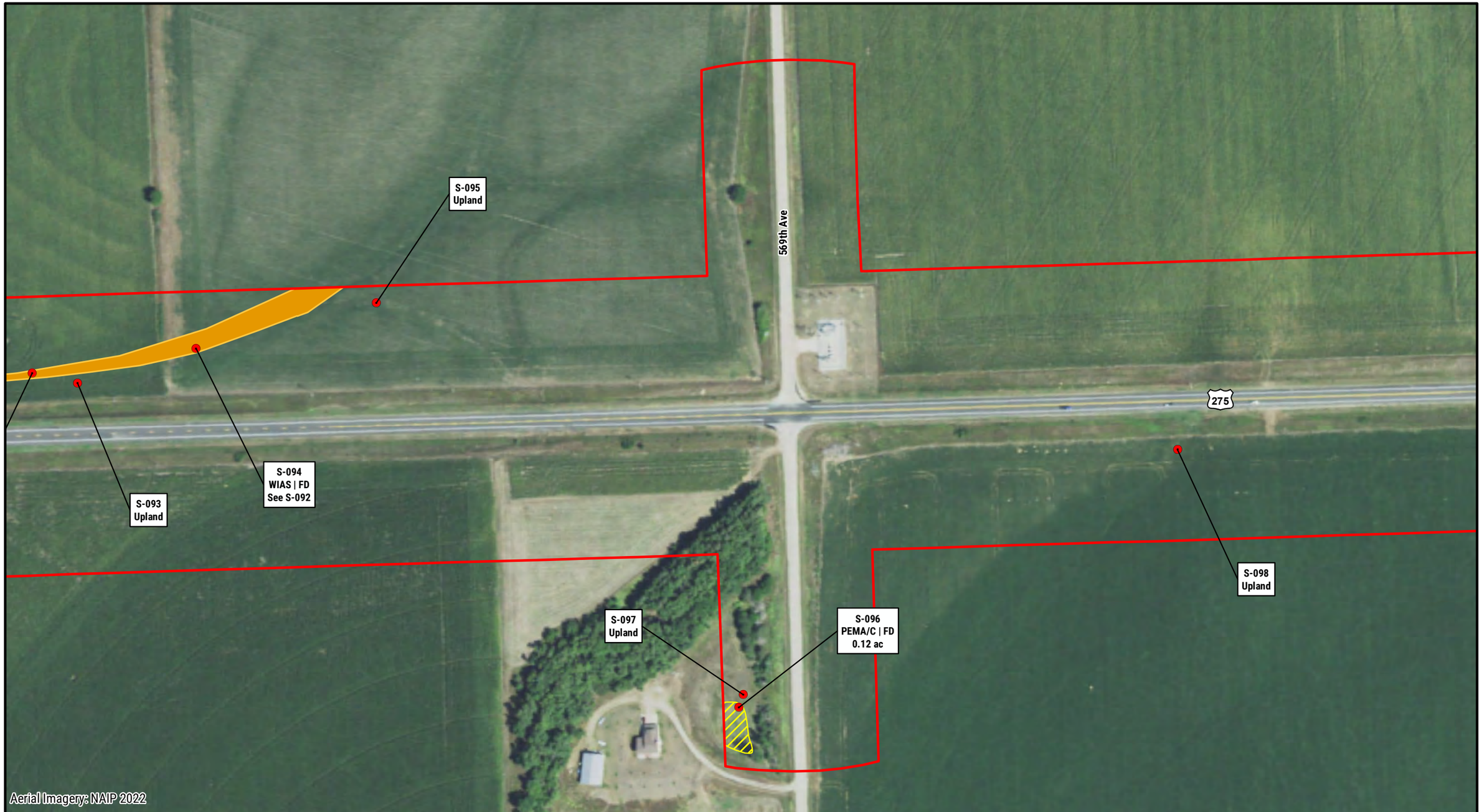

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
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- Study Area
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- Village Boundary
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- PEMA/C
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- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 8 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022

S-104
WIAS | FD
0.88 ac

S-100
WIAS | FD
0.02 ac

S-108
WIAS | FD
See S-104

S-109
WIAS | FD
See S-104

S-099
Upland

S-106
WIAS | FD
See S-104

S-107
Upland

S-111
Upland

275

S-105
Upland

S-101
Upland

S-110
Upland

S-102
PEMA/C | RC
Intermittent Waterway
0.04 ac

S-103
Upland

Aerial Imagery: NAIP 2022

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
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- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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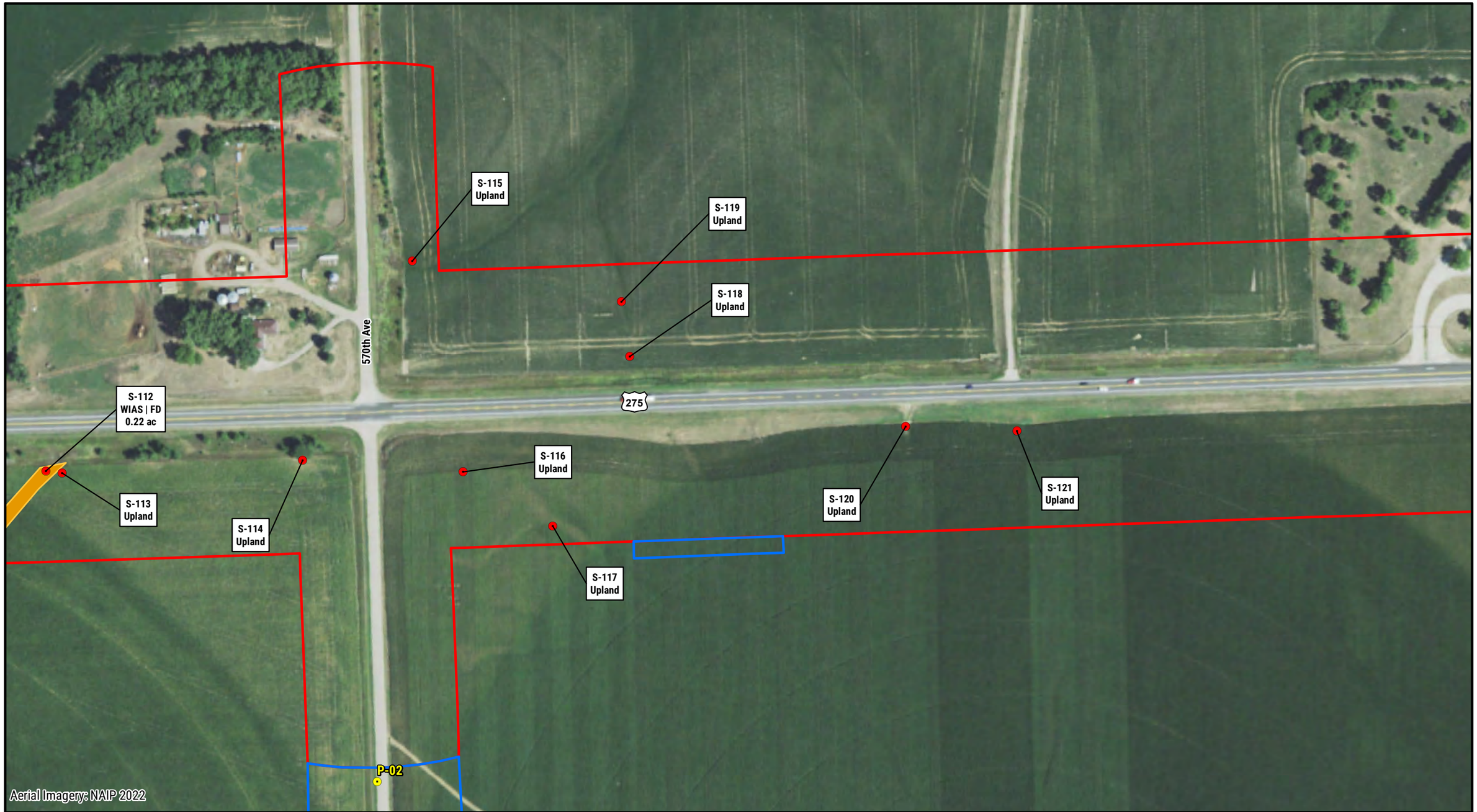
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 9 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
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- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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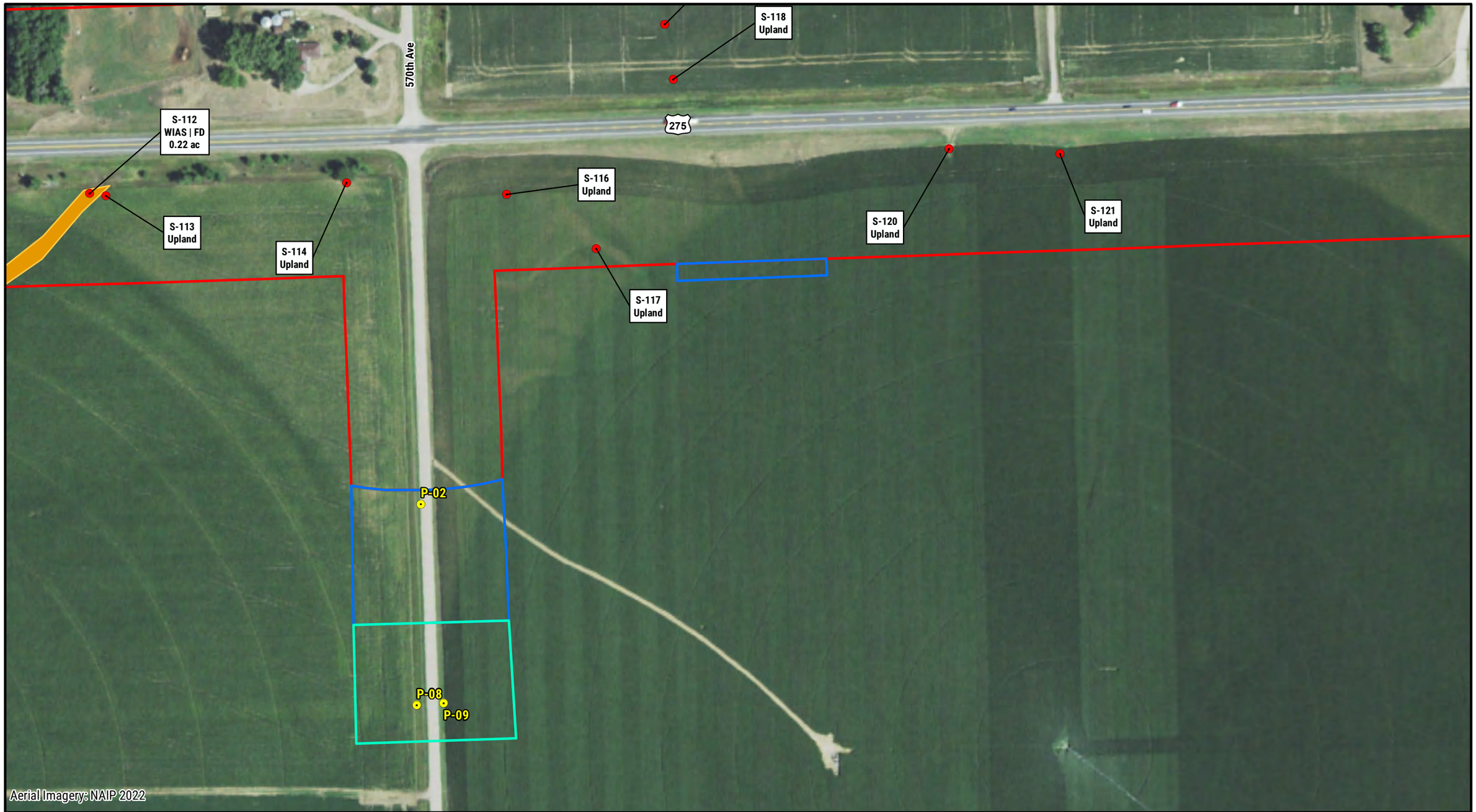
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 10 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 11 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

Nebraska Wetland Subclass Note:
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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
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S-127 Upland
S-128 Upland
S-131 Upland
S-132 WIAS | FD 0.26 ac
S-135 Upland
S-138 Upland
S-137 Upland
275
S-125 Upland
S-130 Upland
S-133 Upland
S-134 Upland
S-136 Upland
571st Ave
S-126 Upland
S-129 Upland
Aerial Imagery: NAIP 2022

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

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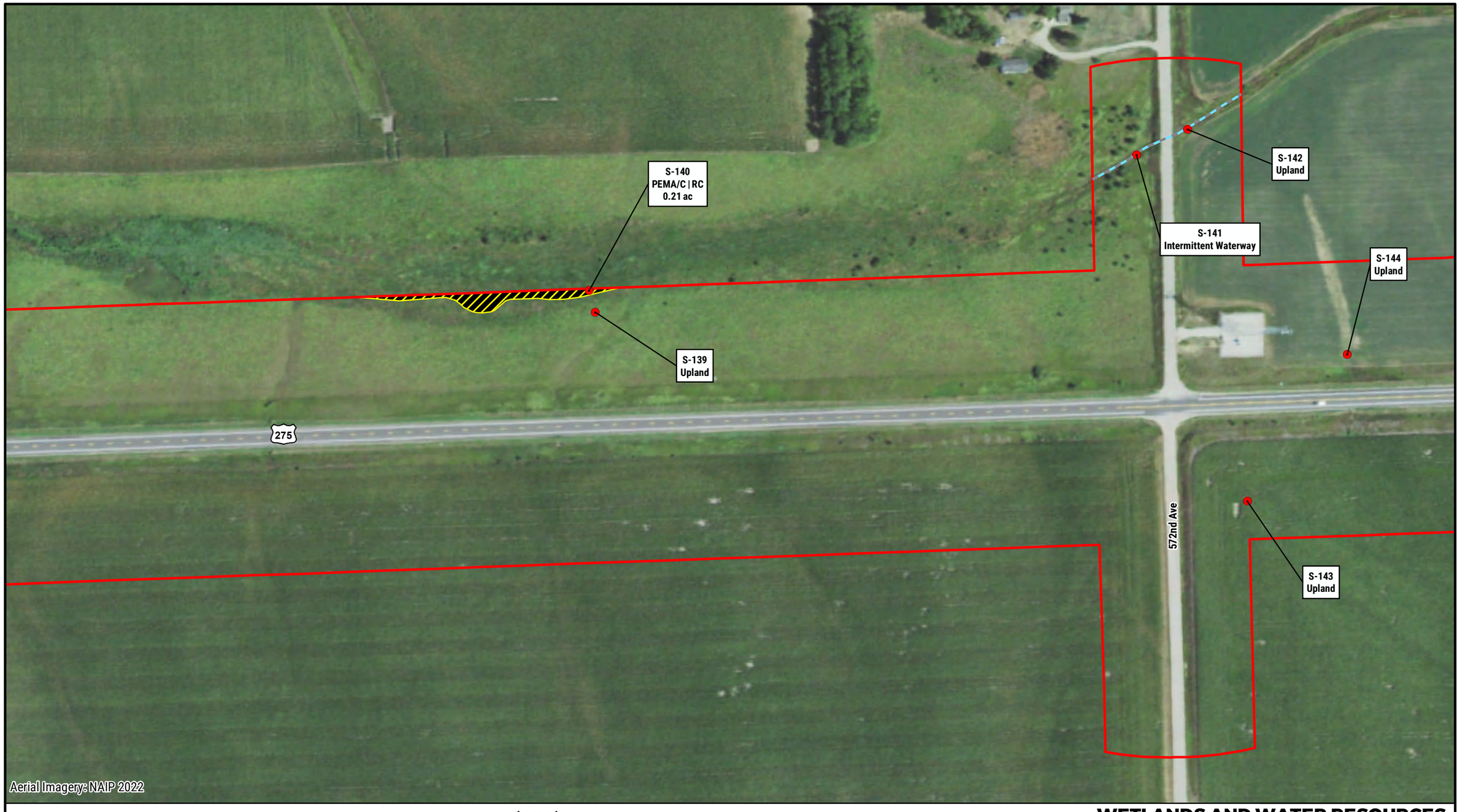
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 12/15/2022

FIGURE 3 SHEET 13 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
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- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
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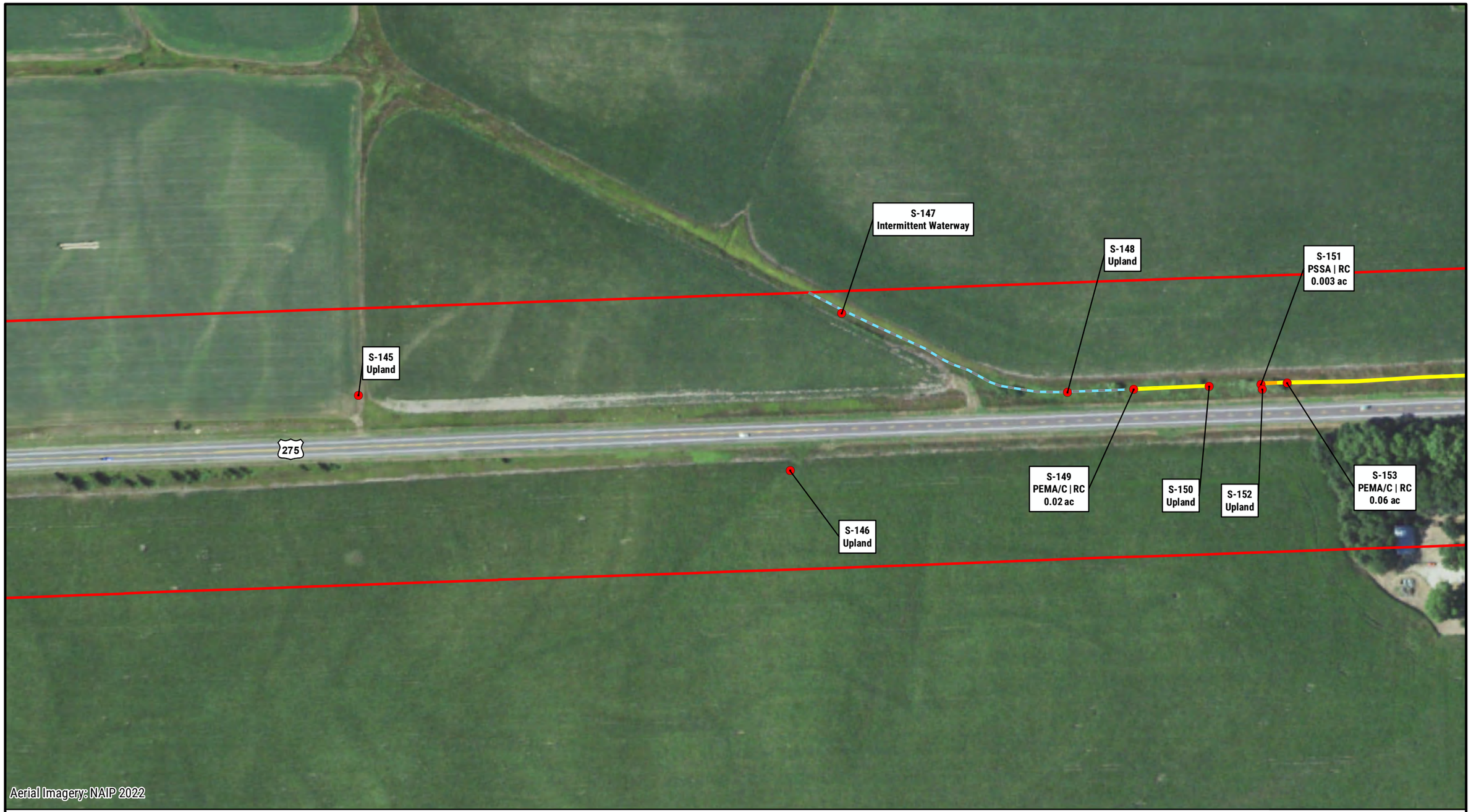

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

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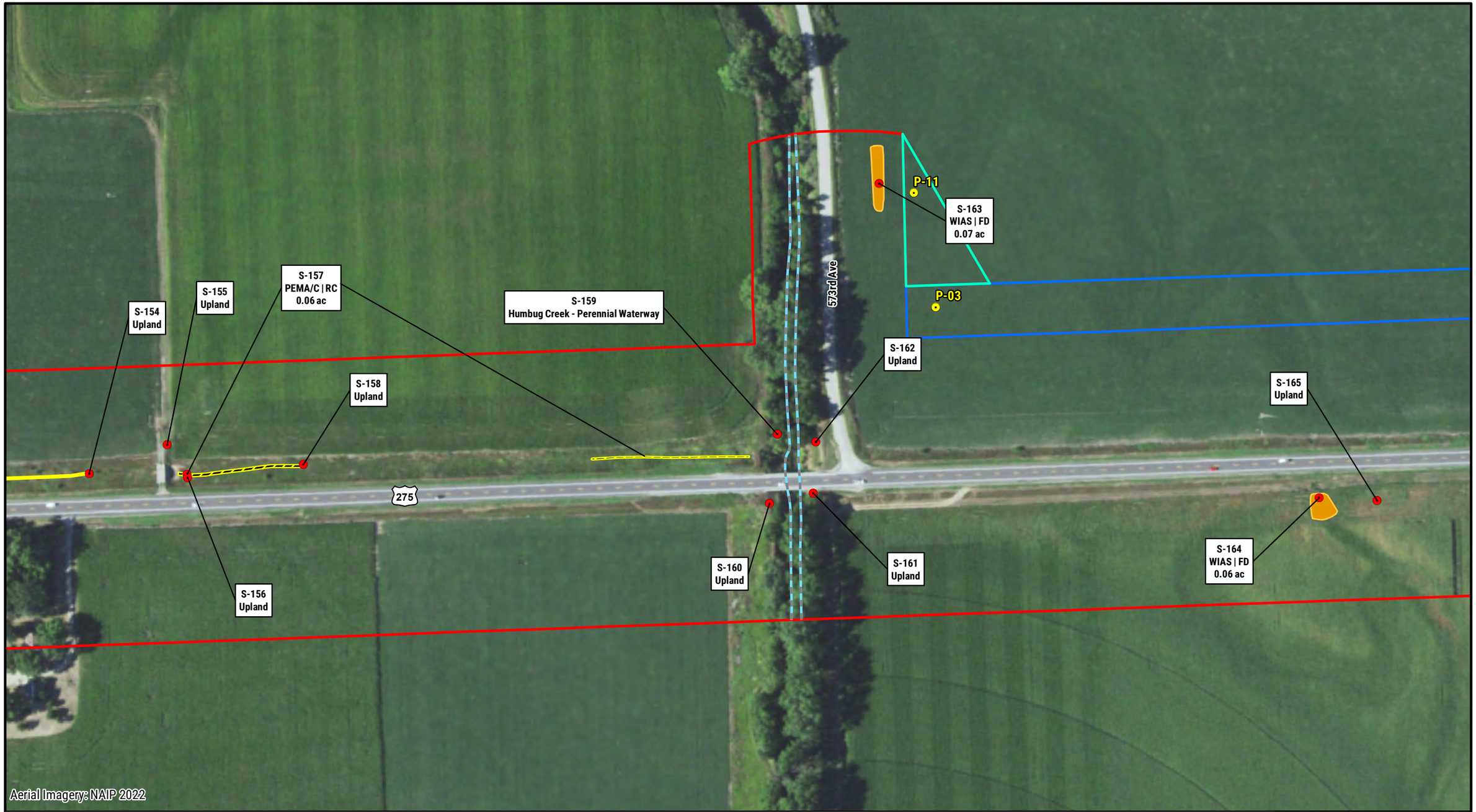
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 15 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
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N

0 100 200
FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

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FIGURE 3 SHEET 16 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	Village Boundary	JD PEMA/C	JD PFOA
Sample Point	Study Area	County Boundary	PEMF	PSSA
Photo Point	2021 Study Area	Open Water	JD PEMF	JD PSSA
Channel	2022 Study Area	PEMA/C	PFOA	WIAS
				JD WIAS

N

0 100 200
FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
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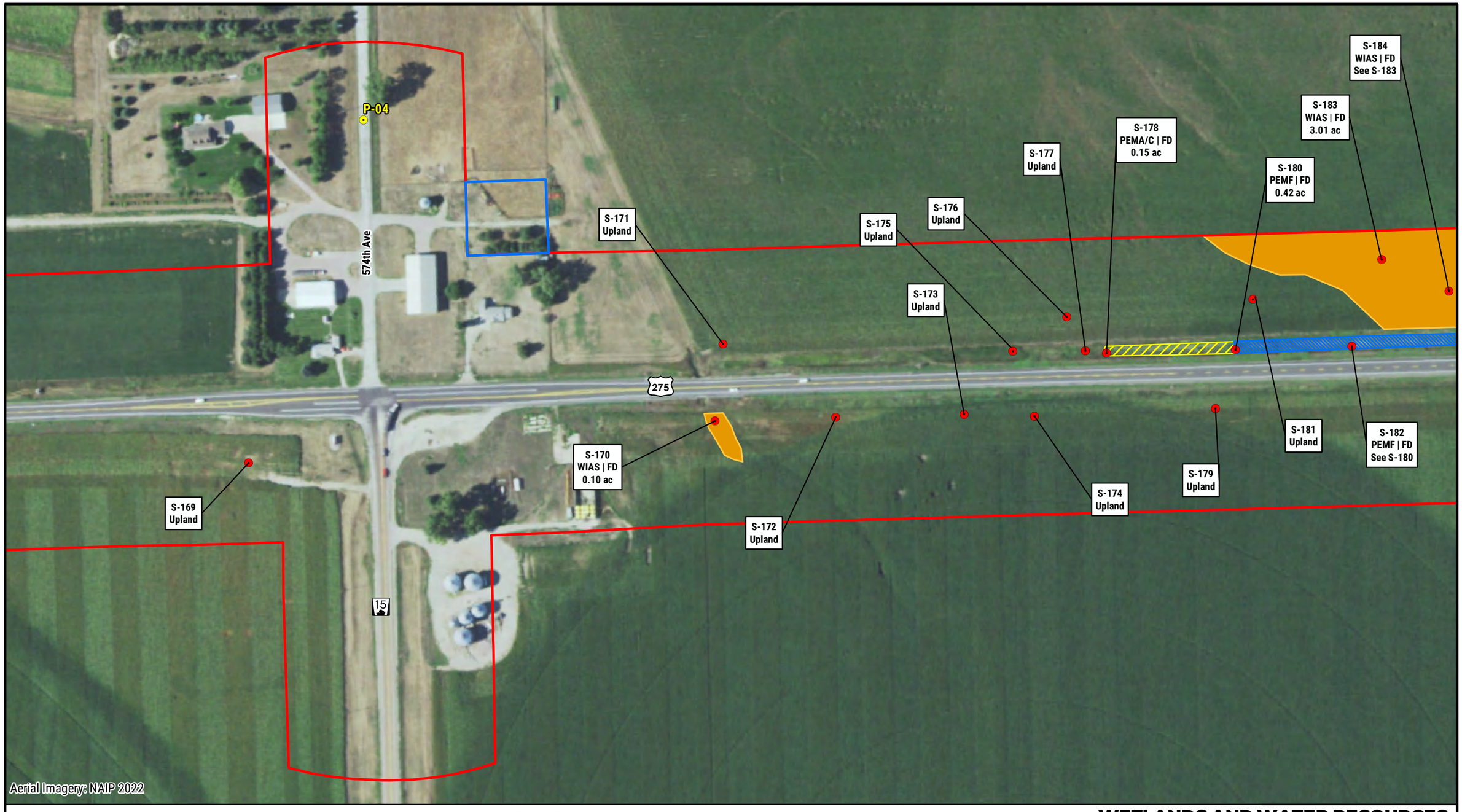
FIGURE 3 SHEET 17 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
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0 100 200
FEET

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WETLANDS AND WATER RESOURCES

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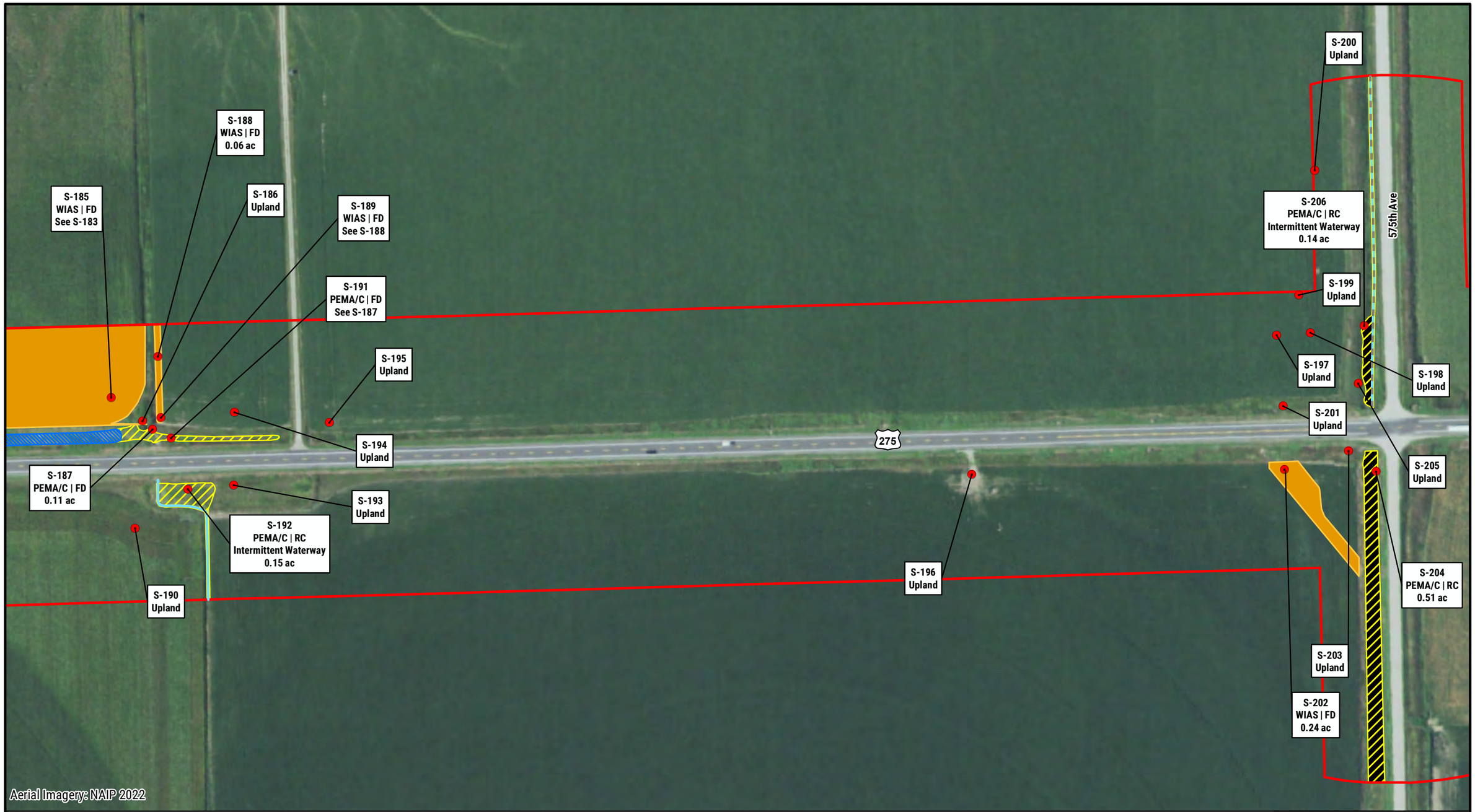

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
- Open Water
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- JD PEMA/C
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- JD PFOA
- PSSA
- JD PSSA
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N

0 100 200
FEET

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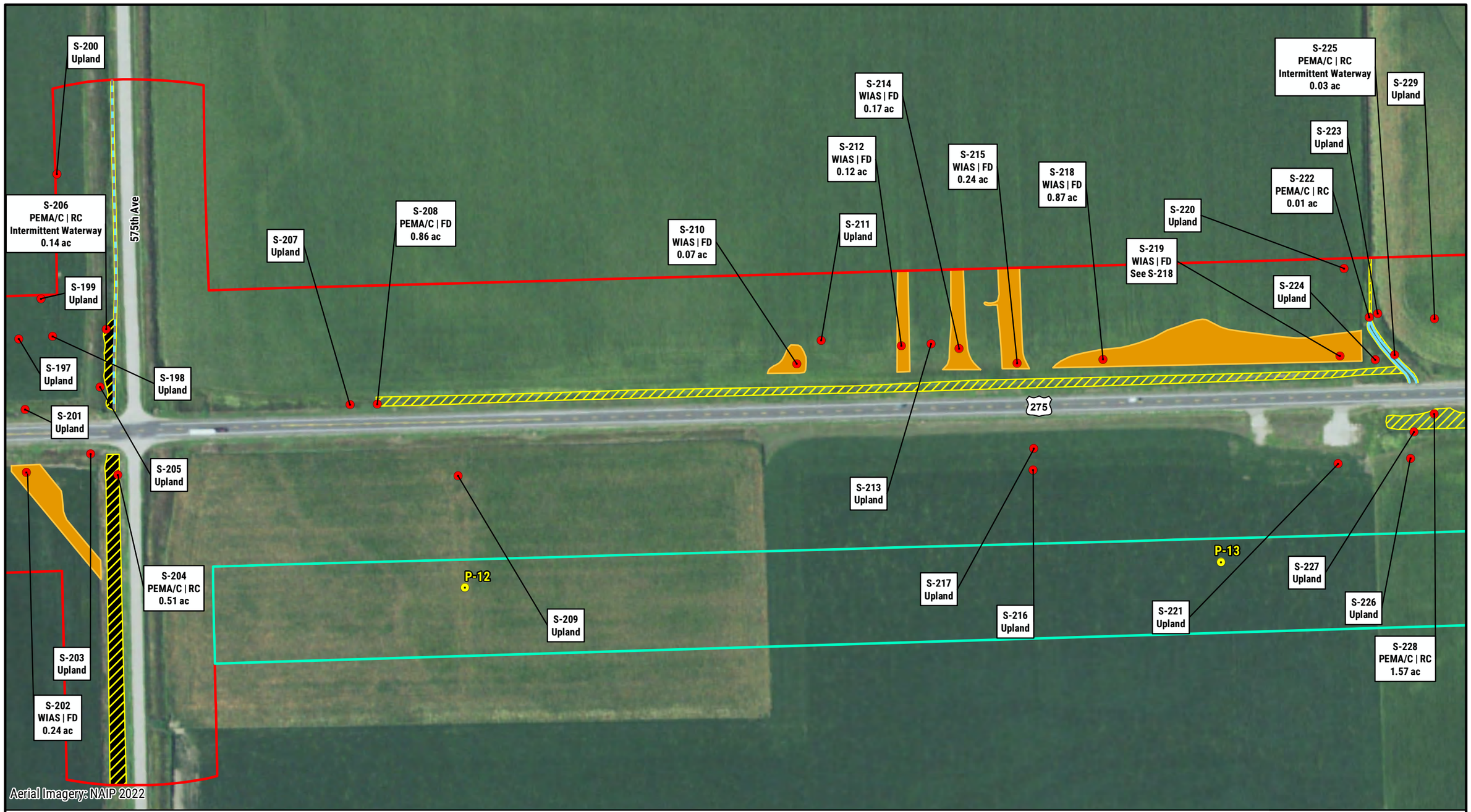
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 19 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
- Photo Point
- Channel
- JD Channel
- Study Area
- 2021 Study Area
- 2022 Study Area
- Village Boundary
- County Boundary
- Open Water
- PEMA/C
- JD PEMA/C
- PEMF
- JD PEMF
- PFOA
- JD PFOA
- PSSA
- JD PSSA
- WIAS
- JD WIAS

N

0 100 200
FEET

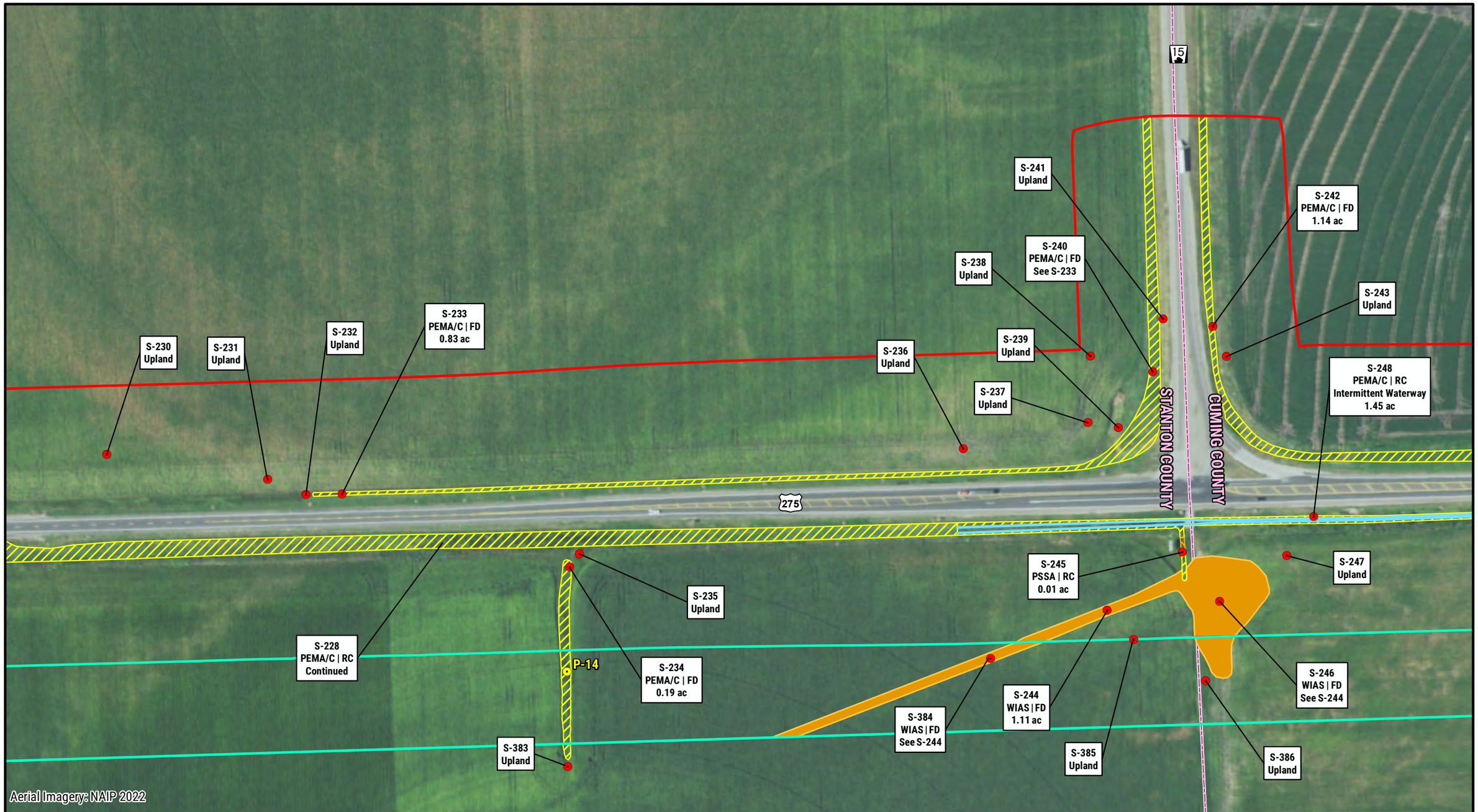
Nebraska Wetland Subclass Note:
FD = Floodplain Depression
RC = Riverine Channel

WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

Mile Marker	JD Channel	Village Boundary	JD PEMA/C	JD PFOA
Sample Point	Study Area	County Boundary	PEMF	PSSA
Photo Point	2021 Study Area	Open Water	JD PEMF	JD PSSA
Channel	2022 Study Area	PEMA/C	PFOA	WIAS
				JD WIAS

N

0 100 200
FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
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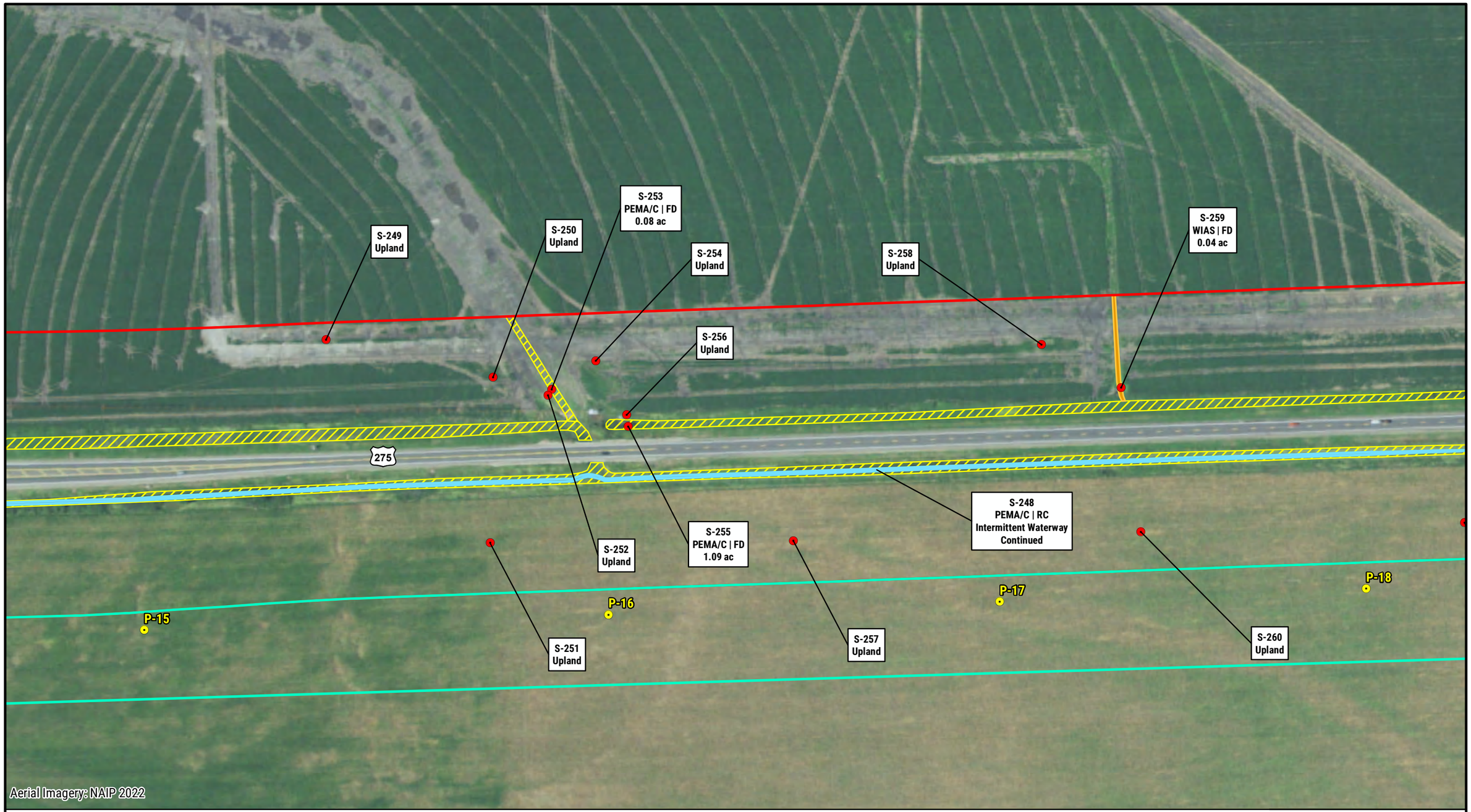

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Sample Point
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FEET

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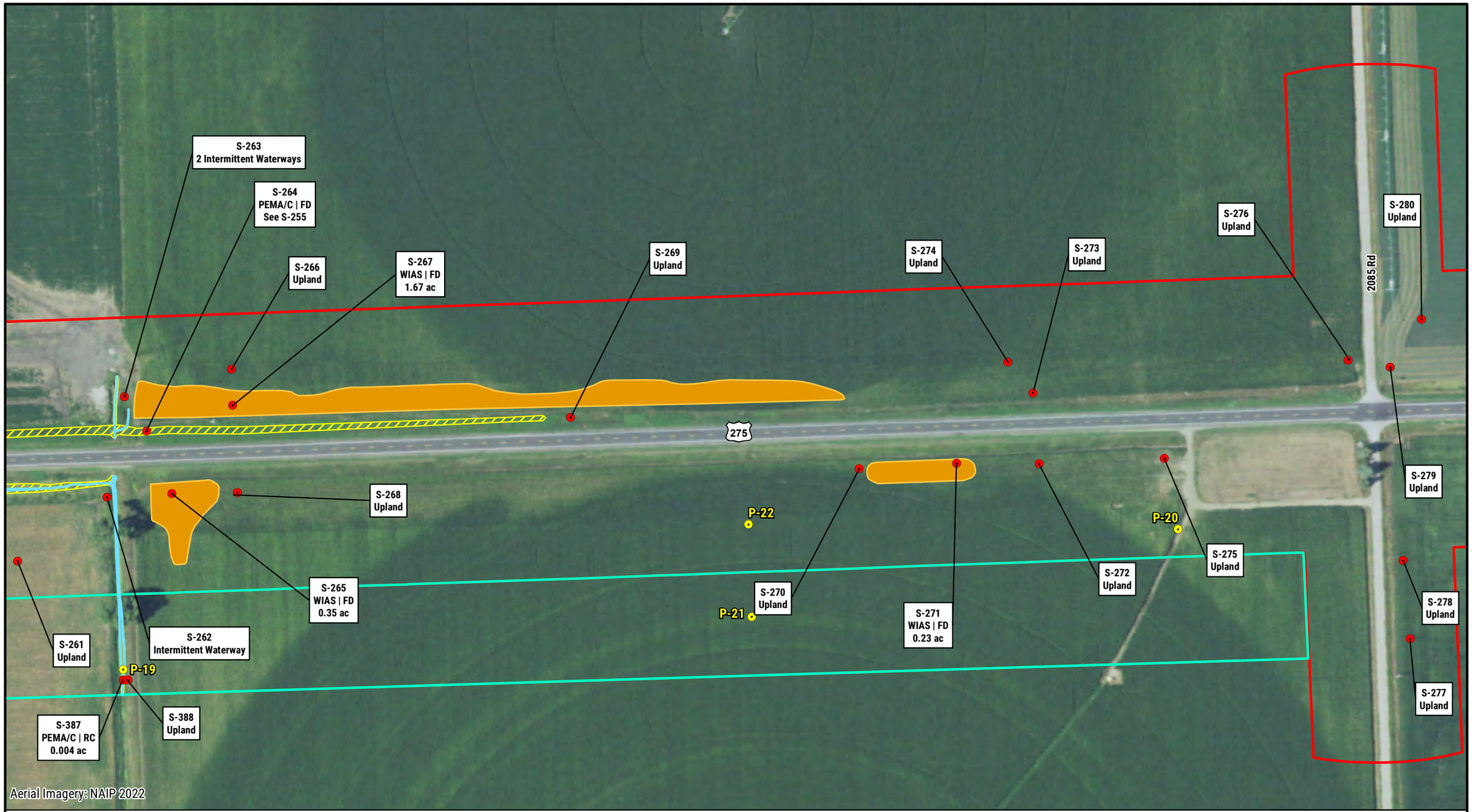
WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 22 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

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FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 23 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 24 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022

S-300
Sand Creek - Perennial Waterway

3rd Rd

S-301
Upland

S-296
Upland

S-297
Upland

S-306
Upland

S-305
Upland

S-310
Upland

S-309
PEMA/C | RC
0.01 ac

S-313
Upland

S-314
Upland

S-315
Upland

S-316
WIAS | FD
0.28 ac

S-320
Upland

S-321
Upland

S-311
Upland

275

S-307
Upland

S-312
PEMA/C | FD
0.55 ac

S-308
PEMA/C | RC
Ephemeral Waterway
0.02 ac

S-317
PEMA/C | FD
0.06 ac

S-303
Upland

S-304
Upland

S-298
WIAS | FD
See S-294

S-302
Upland

S-299
Upland

S-319
WIAS | FD
1.95 ac

S-318
Upland

S-322
Upland

Aerial Imagery: NAIP 2022

NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

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WETLANDS AND WATER RESOURCES

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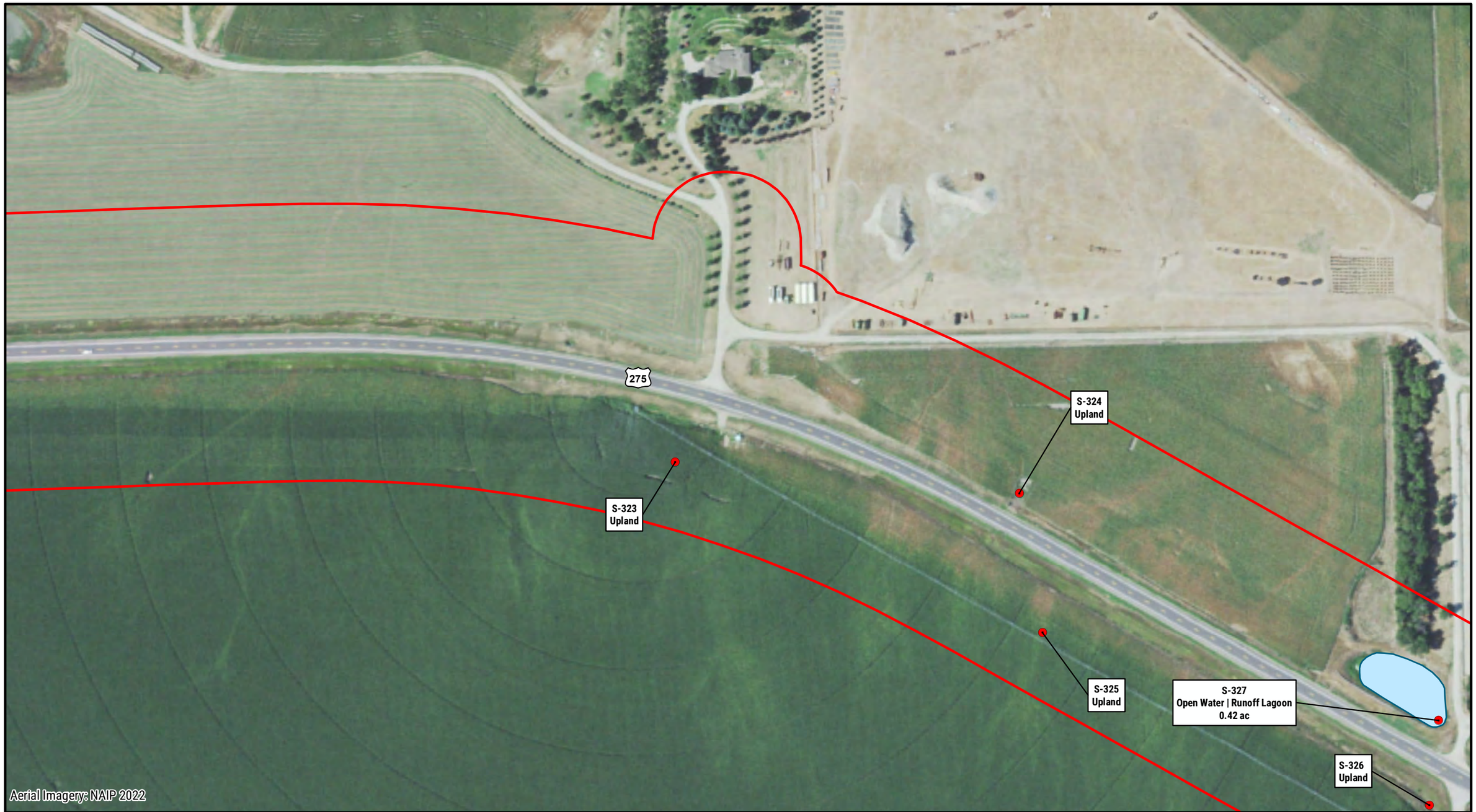

NEBRASKA
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Legend

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0 100 200
FEET

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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

DATE: 12/15/2022

FIGURE 3 SHEET 26 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



NEBRASKA
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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319
DATE: 12/15/2022

FIGURE 3 SHEET 27 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



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0 100 200
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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

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FIGURE 3 SHEET 28 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
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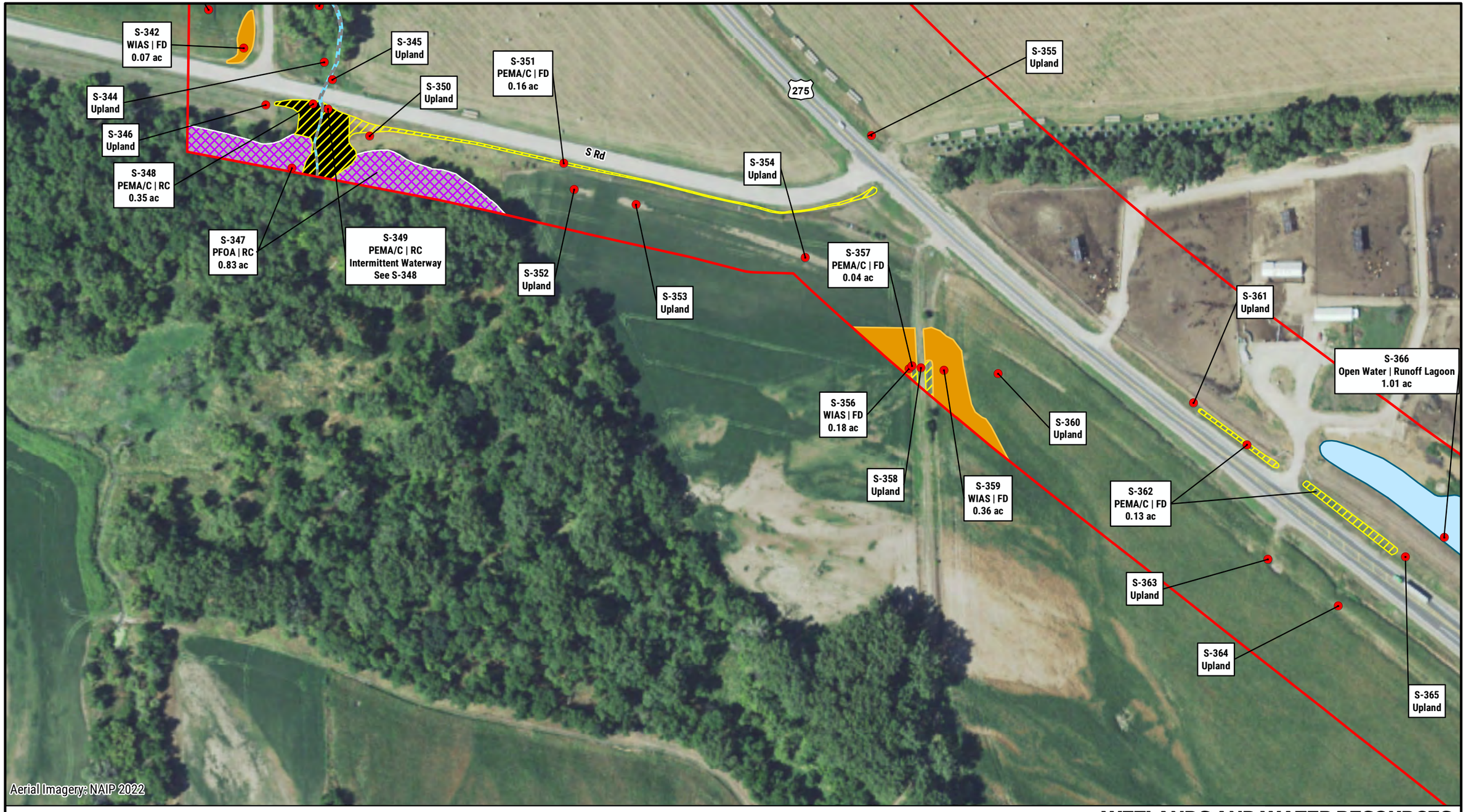
DATE: 12/15/2022

FIGURE 3 SHEET 29 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
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CONTROL NO. 32319

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FIGURE 3 SHEET 30 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
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FIGURE 3 SHEET 31 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
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FIGURE 3 SHEET 32 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022



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WETLANDS AND WATER RESOURCES

NORFOLK - WISNER
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FIGURE 3 SHEET 33 of 33

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_21_WETLAND_WATER_RESOURCES\WETLAND_DELINEATION\06_WETLAND_PICK_UP\FIG3_WETLAND_WATER_RESOURCES.MXD - USER: CMODRCIN - DATE: 12/15/2022

Appendix B

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 10/13/2022

Applicant/Owner: NDOT | State: NE | Sampling Point: S-383

Investigators: Emily Schmit, Shannon McKinley | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Agricultural Field | Local Relief (concave, convex, none): None

Slope(%): 1 | Lat: 42.0170860855429 | Long: -97.0245614006993 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** **X**

Remarks:

The area characterized by this data form is an upland area in an agricultural setting south of US-275 and west of the east junction of N-15. At the time of delineation, the USACE Antecedent Precipitation Tool listed the area under extreme drought conditions. Therefore, climactic/hydrologic conditions are considered atypical.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	0	x 1 = 0
FACW species	0	x 2 = 0
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	0	x 5 = 0
Column Totals:	0 (A)	0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consists primarily of fallow land. The area is a managed plant community as described by the Midwest Regional Supplement and is considered naturally problematic. Since the area fails to display hydric soil indicators and fails to meet wetland hydrology criteria, it is assumed that the vegetation would fail to meet hydrophytic vegetation criteria if the site was an unmanaged plant community.

SOIL

Sampling Point: S-383

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 2/1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Compact Soil

Depth (inches): 6

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators. A restrictive layer composed of compact soil is present at 6 inches in depth.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 10/13/2022

Applicant/Owner: NDOT | State: NE | Sampling Point: S-384

Investigators: Emily Schmit, Shannon McKinley | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Agricultural Field | Local Relief (concave, convex, none): Concave

Slope(%): 1 | Lat: 42.0176322040122 | Long: -97.0212275664326 | Datum: NAD 83

Soil Map Unit Name: Lamo silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	X	No		
Hydric Soil Present?	Yes	X	No	**Is the Sampled Area within a Wetland?**	**Yes X No**
Wetland Hydrology Present?	Yes	X	No		

Remarks:

The area characterized by this data form is an wetland area in an agricultural setting south of US-275 and west of the east junction of N-15. At the time of delineation, the USACE Antecedent Precipitation Tool listed the area under extreme drought conditions. Therefore, climactic/hydrologic conditions are considered atypical.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A=

Hydrophytic Vegetation Indicators:

- ____ Rapid Test for Hydrophytic Vegetation
- ____ Dominance Test > 50%
- ____ Prevalence Index ≤ 3.0
- ____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No**

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation in the area consists primarily of fallow land. The area is a managed plant community as described by the Midwest Regional Supplement and is considered naturally problematic. Since the area displays hydric soil indicators and wetland hydrology criteria, it is assumed that the vegetation would meet hydrophytic vegetation criteria if the site was an unmanaged plant community.

SOIL

Sampling Point: S-384

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 2	10YR 2/1	100					SILT LOAM	
2 to 8	10YR 2/1	98	7.5 YR 4/6	2	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Compact Soil

Depth (inches): 8

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators. A restrictive layer composed of compact soil is present at 8 inches in depth.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☑ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes		No	X	Depth (inches):
Saturation Present?	Yes		No	X	Depth (inches):

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Stanton County | Sampling Date: 10/13/2022

Applicant/Owner: NDOT | State: NE | Sampling Point: S-385

Investigators: Emily Schmit, Shannon McKinley | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Agricultural Field | Local Relief (concave, convex, none): None

Slope(%): 1-2 | Lat: 42.0177130134424 | Long: -97.0201047954611 | Datum: NAD 83

Soil Map Unit Name: Lamo silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The area characterized by this data form is an upland area in an agricultural setting south of US-275 and west of the east junction of N-15. At the time of delineation, the USACE Antecedent Precipitation Tool listed the area under extreme drought conditions. Therefore, climactic/hydrologic conditions are considered atypical.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consists primarily of fallow land. The area is a managed plant community as described by the Midwest Regional Supplement and is considered naturally problematic. Since the area fails to display hydric soil indicators and fails to meet wetland hydrology criteria, it is assumed that the vegetation would fail to meet hydrophytic vegetation criteria if the site was an unmanaged plant community.

SOIL

Sampling Point: S-385

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 6	10YR 3/1	100					SILT LOAM	
6 to 16	10YR 2/1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 10/13/2022

Applicant/Owner: NDOT | State: NE | Sampling Point: S-386

Investigators: Emily Schmit, Shannon McKinley | Section, Township, Range: S 36 T 24N R 03E

Landform (hillslope, terrace, etc.): Agricultural Field | Local Relief (concave, convex, none): None

Slope(%): 2 | Lat: 42.0174604246271 | Long: -97.0195537606693 | Datum: NAD 83

Soil Map Unit Name: Lamo silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation X, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The area characterized by this data form is an upland area in an agricultural setting south of US-275 and south of the east junction of N-15. At the time of delineation, the USACE Antecedent Precipitation Tool listed the area under extreme drought conditions. Therefore, climactic/hydrologic conditions are considered atypical.

VEGETATION– Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A= ____

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation in the area consists primarily of fallow land. The area is a managed plant community as described by the Midwest Regional Supplement and is considered naturally problematic. Since the area fails to display hydric soil indicators and fails to meet wetland hydrology criteria, it is assumed that the vegetation would fail to meet hydrophytic vegetation criteria if the site was an unmanaged plant community.

SOIL

Sampling Point: S-386

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 12	10YR 2/1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☑ **Restrictive Layer (if observed):**

Type: Compact Soil

Depth (inches): 12

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators. A restrictive layer composed of compact soil is present at 12 inches in depth.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):		
Water Table Present?	Yes ____	No X	Depth (inches):		
Saturation Present?	Yes ____	No X	Depth (inches):		

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 10/13/2022

Applicant/Owner: NDOT | State: NE | Sampling Point: S-387

Investigators: Emily Schmit, Shannon McKinley | Section, Township, Range: S 31 T 24N R 04E

Landform (hillslope, terrace, etc.): Drainage | Local Relief (concave, convex, none): Concave

Slope(%): 0 | Lat: 42.0172507730283 | Long: -97.0053872369224 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes X No ____**
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
The area characterized by this data form is an emergent wetland area south of US-275 and south of the east junction of N-15. The waterway is approximately 1 foot wide with 1-foot-tall banks exhibiting 2:1 slope. At the time of delineation, the USACE Antecedent Precipitation Tool listed the area under extreme drought conditions. Therefore, climactic/hydrologic conditions are considered atypical.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 5 Ft)			
Phalaris arundinacea	100	Y	FACW
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index Worksheet:

	Total % Cover of:	Multiply by:
OBL species	0	x 1 = 0
FACW species	100	x 2 = 200
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	0	x 5 = 0
Column Totals:	100 (A)	200 (B)

Prevalence Index = B/A= 2.00

Hydrophytic Vegetation Indicators:

X Rapid Test for Hydrophytic Vegetation

X Dominance Test > 50%

X Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No ____**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation meets hydrophytic criteria.

SOIL

Sampling Point: S-387

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type [1]	Loc [2]	Texture	Remarks
0 to 10	10YR 3 / 1	90	7.5YR 4/6	10	C	M	SILT LOAM	
10 to 16	GLEY 1 3 / 1	90	7.5YR 4/6	10	C	M	SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2] Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:
The observed soil profile displays hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes		No	X	Depth (inches):
Water Table Present?	Yes	X	No		Depth (inches): 12
Saturation Present?	Yes	X	No		Depth (inches): 0

Wetland Hydrology Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area meets wetland hydrology criteria.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Norfolk - Wisner | City/County: Cuming County | Sampling Date: 10/13/2022

Applicant/Owner: NDOT | State: NE | Sampling Point: S-388

Investigators: Emily Schmit, Shannon McKinley | Section, Township, Range: S 31 T 24N R 04E

Landform (hillslope, terrace, etc.): Hillslope | Local Relief (concave, convex, none): None

Slope(%): 10 | Lat: 42.0172497828514 | Long: -97.0053489160833 | Datum: NAD 83

Soil Map Unit Name: Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded | NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If No, explain in Remarks)

Are Vegetation ____, Soil ____, Hydrology ____, significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, Hydrology ____, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach a site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes ____ No X**
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The area characterized by this data form is an upland area elevated above the adjacent waterway south of US-275 and south of the east junction of N-15. At the time of delineation, the USACE Antecedent Precipitation Tool listed the area under extreme drought conditions. Therefore, climactic/hydrologic conditions are considered atypical.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Status
Tree Stratum			
Shrub Stratum			
Herb Stratum (Plot size: 5 Ft)			
Bromus inermis	60	Y	FACU
Phalaris arundinacea	15	N	FACW
Solidago altissima	15	N	FACU
Bidens cernua	10	N	OBL
	100	=Total Cover	
Vine Stratum			

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	100 (A)		340 (B)

Prevalence Index = B/A = 3.40

Hydrophytic Vegetation Indicators:

____ Rapid Test for Hydrophytic Vegetation

____ Dominance Test > 50%

____ Prevalence Index ≤ 3.0

____ Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation (Explain)

Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ____ No X**

Remarks: (Include photo numbers here or on a separate sheet.)
The vegetation fails to meets hydrophytic criteria.

SOIL

Sampling Point: S-388

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of Indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type [1]	Loc [2]	Texture	Remarks
0 to 16	10YR 2/1	100					SILT LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Martix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils: [3]

- ☐ Coast Prairie Redox (A16)
- ☐ Iron-Manganese Masses (F12)
- ☐ Dark Surface (S7)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

☐ **Restrictive Layer (if observed):**

Type:

Depth (inches):

Hydric Soil Present? Yes ____ No X

Remarks:
The observed soil profile fails to display hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surf. (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Plowed Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imag.(C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The area fails to meet wetland hydrology criteria.

Appendix D

Site Photographs



S-383. Upland area in an agricultural setting located south of US-275 and west of the east junction of N-15. Orientation east.



S-384. Wetland area in an agricultural setting located south of US-275 and west of the east junction of N-15. Orientation northeast.



S-385. Upland area in an agricultural setting located south of US-275 and west of the east junction of N-15. Orientation south.



S-386. Upland area in an agricultural setting located south of US-275 and south of the east junction of N-15. Orientation north.



S-387. Continuation of an emergent wetland area located south of US-275 and west of 2085 Road. Orientation south.



S-388. Upland area elevated above the adjacent wetland located south of US-275 and west of 2085 Road. Orientation south.



P-06. Upland area in a roadside ditch located south of US-275 and west of 568th Avenue. Orientation south.



P-07. Upland area in a roadside ditch located south of US-275 and east of 568th Avenue. Orientation north.



P-08. Upland area in a roadside ditch located south of US-275 and west of 570th Avenue. Orientation south.



P-09. Upland area in a roadside ditch located south of US-275 and east of 570th Avenue. Orientation north.



P-10. Upland area in a roadside ditch located south of US-275 and east of 571st Avenue. Orientation southeast.



P-11. Upland area in an agricultural setting located north of US-275 and east of 573rd Avenue. Orientation south.



P-12. Upland area in an agricultural setting located south of US-275 and east of 575th Avenue. Orientation north.



P-13. Upland area in an agricultural setting located south of US-275 and east of 575th Avenue. Orientation southeast.



P-14. Continuation of an emergent wetland located south of US-275 and west of N-15. Orientation south.



P-15. Upland area in an agricultural setting located south of US-275 and east of N-15. Orientation east.



P-16. Upland area in an agricultural setting located south of US-275 and east of N-15. Orientation east.



P-17. Upland area in an agricultural setting located south of US-275 and east of N-15. Orientation east.



P-18. Upland area in an agricultural setting located south of US-275 and east of N-15. Orientation east.



P-19. Beaver dam within a riverine channel located south of US-275 and S Rd. Orientation north.



P-20. Upland area in an agricultural setting located south of US-275 and west of 2085 Road. Orientation east.



P-21. Upland area in an agricultural setting located south of US-275 and west of 2085 Road. Orientation east.

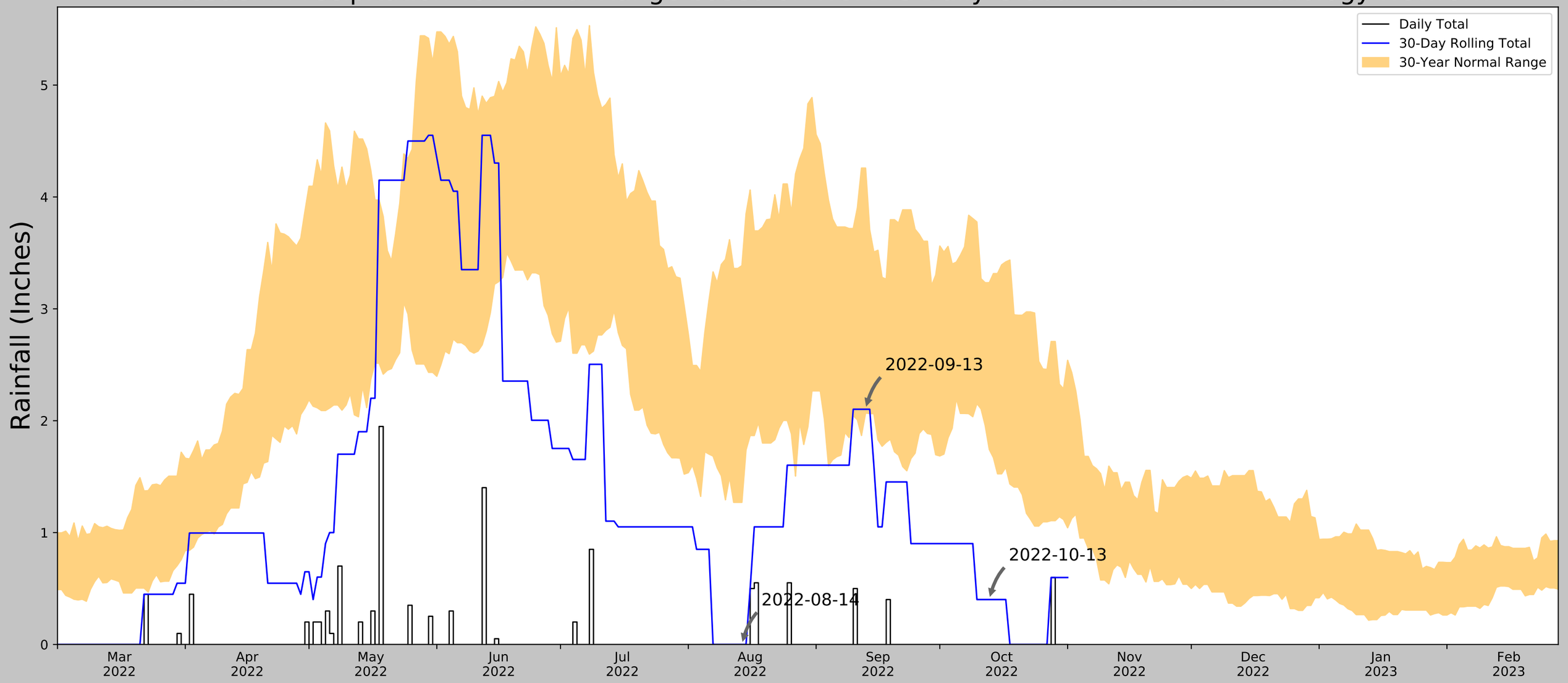


P-22. Upland area in an agricultural setting located south of US-275 and west of 2085 Road. Orientation west.

Appendix E

Antecedent Precipitation Tool (APT)

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	42.01170860855429, -97.0245614006993
Observation Date	2022-10-13
Elevation (ft)	1399.57
Drought Index (PDSI)	Extreme drought (2022-09)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-10-13	1.74252	3.233465	0.401575	Dry	1	3	3
2022-09-13	2.068898	4.258268	2.102362	Normal	2	2	4
2022-08-14	1.270079	3.385827	0.0	Dry	1	1	1
Result							Drier than Normal - 8

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
WAYNE	42.2361, -97.0108	1464.895	15.149	65.325	7.807	11183	80
PILGER 0.1 NNE	42.0102, -97.0536	1403.871	1.565	4.301	0.711	13	0
PILGER	42.0067, -97.0561	1407.152	1.771	7.582	0.81	39	0
STANTON 7NE	42.0414, -97.1747	1580.053	7.887	180.483	4.973	111	5
BEEMER 0.2 E	41.9301, -96.8078	1368.11	12.653	31.46	6.092	6	1
STANTON 6.4 NNE	42.0404, -97.1974	1630.906	9.016	231.336	6.143	1	0
WEST POINT 5.0 WNW	41.8664, -96.7995	1414.042	15.562	14.472	7.228	0	4

Appendix O

Fish, Wildlife, and Vegetation

US-275 Norfolk – Wisner Habitat Connectivity Report

Project Number: S-275-6(1052)
Control Number: 32319

August 2023

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

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A Figures

1.0 Introduction and Purpose

The Nebraska Department of Transportation (NDOT) is planning to improve approximately 16 miles of US Highway 275 (US-275) in Stanton and Cuming Counties, Nebraska, referred to as Norfolk – Wisner. The Norfolk – Wisner Project (Project) would expand the existing two-lane highway to a four-lane expressway (see Appendix A, Figure 1, Project Location). The Project starts 0.30 mile west of the junction of US-275 and Nebraska Highway 57 (N-57) and extends east to 0.25 mile southeast of the west corporate boundary of Wisner. Construction may begin and/or end approximately 500 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement.

A habitat connectivity assessment was conducted to determine the wildlife species endemic to the area, available habitat, and locations of wildlife corridors. Habitat connectivity can be defined as "the degree to which the landscape allows animal movement and other ecological flows" (Wisconsin Department of Transportation 2019). "Impervious surfaces and fragmented landscapes change how animals, plants, and water move through a landscape. A connected landscape allows the movement of organisms for reproduction and maintenance of genetic diversity. It also allows organisms to relocate to suitable habitat if small amounts of fragmentation occur" (Sutherland et al. 2000, as cited in Minnesota Department of Natural Resources 2019).

The Study Area for this habitat connectivity assessment is large enough to identify and address environmental concerns while not restricting the alternatives to be considered. The Project Study Area generally extends approximately 300 feet on either side of US-275 and also includes:

- 400-foot-wide corridors extending approximately 700 feet along Nebraska Highway 15 (N-15) at two locations (south toward Pilger and north along the Stanton County and Cuming County line) and Nebraska Highway 51 (N-51) northwest of Wisner,
- A 300-foot-wide corridor extending approximately 700 feet along intersecting county roads. There are county roads where the study area expands further south.

In total, the Study Area is approximately 16 miles in length and encompasses an area of approximately 1,350 acres (see Appendix A, Figure 2, Potential Habitat).

2.0 Methodology

Wildlife, and habitat that may occur in the Study Area, as well as wildlife corridors, were identified through desktop analysis and field verification, as described in the following sections.

2.1 Desktop Analysis

2.1.1 Wildlife Species Data

Wildlife that may occur in the Study Area was identified through a desktop analysis. According to the Nebraska Natural Legacy Project (Schneider et al. 2011), the Project is in the Tallgrass Prairie Ecoregion, which encompasses the eastern third of Nebraska. Historically, the upland tallgrass prairie was dominated by big bluestem, Indian grass, switchgrass, and Canada wildrye. Native woodlands were often found in the stream valleys and on bluffs. Today, most of the land in the Study Area has been converted to an agricultural or livestock production use.

At present, more than 300 species of resident and migratory birds, 55 mammal species, 75 species of fish, 53 species of amphibians and reptiles, and potentially hundreds of species of insects occur in the

Tallgrass Prairie Ecosystem (Schneider et al. 2011). For the purposes of this analysis, habitat connectivity is discussed for relatively large, common wildlife species and Tier I At-risk species (as defined by the Nebraska Natural Legacy Project). Common wildlife species that may occur in the Study Area include coyote, opossum, raccoon, white-tailed deer, muskrat, mink, cottontail rabbit, and turkey. Tier I At-risk species that could occur in the Study Area are listed in Table 1.

Table 1. Tier I At-Risk Species

Common Name	Scientific Name	Habitat Description
Bird		
Black-billed cuckoo	*Coccyzus erythropthalmus*	Woodlands and thickets, often in proximity to water
Buff-breasted sandpiper	*Calidris subruficollis*	Agricultural fields during stopover and wetlands
Henslow's sparrow	*Ammodramus henslowii*	Open grassland
Loggerhead shrike	*Lanius ludovicianus*	Open grassland
Short-eared owl	*Asio flammeus*	Open grassland
Sprague's pipit	*Anthus spragueii*	Short to tallgrass prairie, pastures, harvested fields
Wood thrush	*Hylocichla mustelina*	Major river valleys in eastern Nebraska
Reptile		
Blanding's turtle	*Emydoidea blandingii*	Cordgrass wet prairie, marshes, and oxbows
Insect		
Buchholz black dash	*Euphyes conspicua buchholzi*	Wet meadow and spring-fed marsh
Iowa skipper	*Atrytone arogos iowa*	Tall-grass prairie, mixed-grass prairie along the Niobrara – bluestems likely host plant, requires native prairie with standing grass stems
Married underwing	*Catocala nuptialis*	Tallgrass and mixed grass prairie
Monarch	*Danaus plexippus*	Broad range of habitat but requires select species of milkweed as larval host plants
Nebraska fritillary	*Boloria selene nebraskensis*	Wet meadows with violets
Ottoe skipper	*Hesperia ottoe*	Tallgrass and mixed grass prairie
Platte River caddisfly	*Ironoquia plattensis*	Sloughs, backwaters, wet meadows

Common Name	Scientific Name	Habitat Description
Regal fritillary	*Speyeria idalia*	Tallgrass and mixed grass prairie with violets; wet meadows
Smoky-eyed brown	*Lethe eurydice fumosa*	Sedge meadows in Sandhills and along streams and wetlands
Two-spotted skipper	*Euphyes bimacula Illinois*	Streams, wetlands, marshes, wet road ditches
Whitney underwing	*Catocala whitneyi*	Tallgrass and mixed grass prairie
Winnebago mayfly	*Cercobrachys winnebago*	Medium size rivers, specific habitat requirements not known
Mammal		
Eastern red bat	*Lasiurus borealis*	Deciduous and pine woodlands, usually associated with a water source
Hoary bat	*Lasiurus cinereus*	Deciduous and pine woodlands, usually associated with a water source
Plains pocket mouse	*Perognathus flavescens perniger*	Mixed grass prairie
Plains spotted skunk	*Spilogale putorius interrupta*	Grasslands and old field habitat close to old structures and wooded areas
Tricolored bat	*Perimyotis subflavus*	Deciduous woodlands

Sources: Schneider et al. 2018; NGPC 2023.

NDOT will evaluate effects on federally and state-listed threatened and endangered species and species protected by the Nebraska Nongame and Endangered Species Conservation Act per the NDOT Biological Evaluation Process. Because of the Project's need for a Clean Water Act Section 404 permit, the US Army Corps of Engineers would coordinate with the US Fish and Wildlife Service under the Fish and Wildlife Coordination Act (FWCA) for Project impacts on fish and wildlife.[1]

2.1.2 Habitat Data

To determine the available habitat, a desktop analysis was performed. Desktop analysis categorized land use into native undeveloped habitats that would likely be used by a diverse group of native and migratory wildlife (woodland, pasture/grassland, and wetlands) and those that would likely be used by common wildlife adapted to human disturbance (row-crop agriculture and developed). Wetlands were identified using a combination of multiple years of National Agriculture Imagery Program (NAIP) aerial

[1] FWCA provides a procedural framework for the impact review of fish and wildlife resources in federally constructed, permitted, or licensed water development projects (for example, those requiring a Clean Water Act Section 404 permit from the US Army Corps of Engineers). FWCA requires mitigation to prevent loss of, and damage to, such resources through avoidance, minimization, rectification, rectification over time, and compensation (Smalley and Mueller 2004). Because the Project requires a Section 404 permit, NDOT would coordinate with the US Fish and Wildlife Service under FWCA and may choose to implement requested conservation measures from the US Fish and Wildlife Service.

imagery,[2] Google Earth mapping service, the National Wetlands Inventory (NWI) coverage, the National Hydrography Dataset (NHD) coverage, and soil survey data. In addition, farmed wetland analysis was performed using the NAIP aerial imagery. The resulting wetland land use categories are agricultural wetlands, NWI, open water, palustrine emergent temporarily flooded/palustrine emergent seasonally flooded (PEMA/PEMC) wetlands, palustrine emergent semi-permanently flooded (PEMF) wetlands, palustrine scrub-shrub temporarily flooded (PSSA) wetlands, and palustrine forested temporarily flooded (PFOA) wetlands. This desktop assessment of wetlands was field-verified during wetland delineations completed May 6- 9, 2019, August 15, 2019, July 8, 2021, and October 13, 2022, as shown in Figure 2. The non-wetland areas were categorized into pasture/grassland, woodland, row-crop agriculture, and developed (urban and roads).

2.1.3 Wildlife-Vehicle Collision Data

To determine wildlife corridors, wildlife-vehicle collision data were analyzed for concentrations of animal-vehicle crashes that correspond with identified wildlife habitat. NDOT crash data along US-275 (MM 86.00 to MM 101.78) were analyzed for all animal-related crashes from January 1, 2014, to December 31, 2020 (NDOT 2019a; NDOT 2023). Crash data was not yet available for 2021 and 2022 at the time of coordination. There were 21 crashes involving animals in the 7-year period (NDOT 2020). Animal-related crashes make up 16 percent of all crashes between MM 86.00 and MM 101.78. Statewide, animal-related crashes[3] from 2014 through 2018 on all two-lane state highways make up approximately 56 percent of all crashes (NDOT 2019b). A nationwide comparison of crash rates due to animals is not available because each state collects and reports data differently (NDOT 2017). It should be noted that only crashes that are reported are included in the analysis. It is unknown how many animal-related crashes, or other crashes, occur but are unreported.

2.1.4 Roadway Structures that May be Used for Movement

Existing bridges and culverts that may be used as wildlife crossings were also identified. Wildlife, including deer, bobcat, coyote, badger, fox, porcupine, mink, skunk, raccoon, ground squirrel, cottontail rabbit, and rodents, typically use bridges and larger culverts as movement corridors beneath roads. Stream crossings are excellent conduits for wildlife crossing use by all species of wildlife (Cramer 2012). To determine existing bridge and culvert locations along US-275, roadway culvert and bridge hydraulic surveys were reviewed. Medium-sized mammals (opossum, raccoon, fox, and rabbit) can use culverts that provide a 12-square-foot opening (Arizona Game and Fish Department 2006), so any culvert with this minimum opening was included in the analysis.

2.2 Field Verification

HDR environmental scientists conducted site visits from May 6 through May 10, 2019, August 15, 2019, July 8, 2021, and October 13, 2022. During these site visits, the scientists conducted a wetland delineation and verified or corrected the habitats categorized during the desktop analysis. The scientists also noted the following types of wildlife signs, native habitat, and possible movement corridors (see Table 2):

- Wet or big bluestem-dominated meadow
- Wooded or forested land use

[2] NAIP aerial imagery data analyzed were from 2003, 2004, 2005, 2006, 2007, 2009, 2010, 2012, 2014, 2016, and 2018.

[3] Cow and horse strikes were omitted from analysis; deer and other strikes were included.

- Wildlife trail
- Bridges or culverts with an opening greater than 12 feet in diameter
- Roadkill (two dead raccoons)

3.0 Results

The results of the habitat assessment that were verified during the May 2019, August 2019, July 2021, and October 2022 site visits are presented in Section 3.1. The areas that have been identified as wildlife corridors are presented in Section 3.2. Identified habitat and wildlife corridors are shown in Appendix A, Figure 2, Potential Habitat.

3.1 Land Use and Habitat Composition

The Study Area was categorized as row-crop agriculture, developed (urban and roads), pasture/grassland, agricultural wetlands, woodland/forested wetland, emergent wetland, open water, or scrub-shrub wetland. Table 2 lists the area of each habitat type, the percentage of the Study Area made up by each type, and the Tier I At-risk species that could occur in each habitat type. Common wildlife species including coyote, opossum, raccoon, white-tailed deer, muskrat, mink, cottontail rabbit, and turkey are found in all of the habitat types listed in Table 2.

Table 2. Habitat

Habitat Type	Acres in Study Area	Percentage of Study Area	Tier I At-Risk Species Potentially Present
Row-crop agriculture	902.2	66.7	Buff-breasted sandpiper, Sprague's pipit
Developed (urban and roads)	317.4	23.5	Monarch
Pasture/grassland	61.4	4.5	Henslow's sparrow, loggerhead shrike, short-eared owl, Sprague's pipit, Blanding's turtle, Buchholz black dash, Iowa skipper, married underwing, monarch, Nebraska fritillary, Ottoe skipper, regal fritillary, Whitney's underwing, plains pocket mouse, plains spotted skunk
Agricultural wetlands	24.7	1.8	Buff-breasted sandpiper, Sprague's pipit
Woodland	22.5	1.6	Black-billed cuckoo, wood thrush, monarch, eastern red bat, hoary bat, tricolored bat
Emergent wetland (PEMA/PEMC/PEMF[a])	18.9	1.4	Buff-breasted sandpiper, Blanding's turtle, Buchholz black dash, monarch, Nebraska fritillary, Platte River caddisfly, regal fritillary, smoky-eyed brown, two-spotted skipper
Open water	3.6	0.3	Blanding's turtle, Buchholz black dash, Winnebago mayfly
Forested wetland (PFOA[b])	1.0	0.1	Black-billed cuckoo, wood thrush, monarch, eastern red bat, hoary bat, tricolored bat

Habitat Type	Acres in Study Area	Percentage of Study Area	Tier I At-Risk Species Potentially Present
Scrub-shrub wetland (PSSA[c])	0.4	<0.1	Black-billed cuckoo, monarch

Notes:

[a] PEMA/PEMC = palustrine emergent temporarily / seasonally flooded; PEMF = Palustrine emergent semi-permanently flooded.
[b] PFOA = palustrine forested temporarily flooded.
[c] PSSA = palustrine scrub-shrub temporarily flooded.

Row-crop agriculture and developed land use (urban and roads) make up the majority of the Study Area. The wildlife species that could be found in these areas are generalist species such as raccoon, cottontail rabbit, opossum, and white-tailed deer. Project impact on developed land use would likely have "no effect" on Tier I At-risk species.

Most of the Tier I At-risk species are associated with pasture/grassland, which makes up only 4.5 percent of the Study Area. The pasture/grasslands in the Study Area are mostly disturbed by grazing or haying and are dominated by monotypic non-native cool-season grasses such as brome and fescue. Overgrazing by livestock is generally detrimental to wildlife use of grazed land. Moderate grazing has been reported as beneficial, neutral, or harmful, depending on wildlife species (National Research Council 1970).

Of the 48.60 acres of wetlands/aquatic resources in the Study Area, only two areas are large enough to be considered wetland complexes. Wetland complexes contain one or more wetland type and surrounding uplands. Larger wetland complexes are associated with increased species richness. Wetland complexes near other wetland habitats are beneficial to species, as are quality upland habitats adjacent to wetlands (restored prairie versus intensively agricultural; Rewa 2007). Table 3 describes the wetland complexes present in the Study Area, and their locations are shown in Appendix A, Figure 2.

Table 3. Wetland Complexes

Location	Mile Markers	Habitat Description	Figure 2 Sheet No.
South of US-275 ~1 mile east of the start of the Project	87.30 to 87.60	~8 acres of emergent wetlands and grassland with agricultural uplands	4-5
Unnamed tributary of Sand Creek	100.08	~1 acre of emergent and forested wetlands with surrounding agricultural fields in the Study Area and woodlands to the south	30

3.2 Wildlife Corridors

Wildlife corridors are areas that wildlife regularly traverse to find food, escape predators, and find refuge. Based on habitat types present and wildlife-vehicle collision data (NDOT 2019a), there are five locations in the Study Area where crashes are concentrated in areas with non-agricultural habitat in or adjacent to the Study Area or are along drainages connecting wetland and water resources to the Elkhorn River. This combination of factors suggests the areas are being used as wildlife corridors. This analysis identified wildlife corridors areas where wildlife-vehicle collisions have occurred if there are bridges and culverts with a minimum 12-square-foot opening present and/or wildlife habitat

present on both sides of US-275. These areas are identified in Table 4 by mile marker, and a basic habitat description is provided. These locations are shown in Appendix A, Figure 2. The common habitat characteristics of these areas are proximity to a waterway and a combination of habitat types, including wetlands. The habitat diversity adjacent to these corridors likely equates to increased species diversity. Four of the five wildlife corridors include a stream crossing with a bridge structure or culvert with an opening greater than 12 square feet. While Payne Creek and Humbug Creek cross US-275, these waterways are both deeply incised with riparian vegetation present on only the immediate channel banks. The lack of recorded crashes in these areas suggests that either wildlife is successfully crossing US-275 using the existing structures or wildlife are not using these areas to cross US-275. The available data did not identify a correlation between wildlife-vehicle collisions and the wetland complex from MM 87.30 to MM 87.60, so it was not identified as a wildlife corridor.

Table 4. Wildlife Corridors

Wildlife Corridor (Mile Markers)	Crash Locations[1] (Mile Marker)	Habitat Description	Wildlife Signs Noted During Site Visit	Feature that Could Be Used for Movement[2]	Figure 2 Sheet No.
90.1 to 92.5	90.10 90.32 91.14 92.50	Hilly agricultural area with Conservation Reserve Program land with a defined channel transitioning to emergent wetlands; drainage area parallels corridor 0.25 mile or less to the north	N/A	No bridges or culverts with openings greater than 12 square feet	10-15
95.0 to 95.1	95.01 95.07	Narrow emergent wetlands associated with outfall path from Pilger Reservoir 1-B; drainage path connects the reservoir to the Elkhorn River	N/A	Quad 48-inch culvert pipes (MM 95.04) Quad 72-inch culvert pipes (MM 95.08)	19-20
95.9 to 97.4	95.95 96.10 96.14 96.60 96.89 97.31	Linear ditch wetlands paralleling US-275	Two dead raccoons	31.5-foot-long Structure Number S275 09644 (MM 96.44)	21-23

Wildlife Corridor (Mile Markers)	Crash Locations[1] (Mile Marker)	Habitat Description	Wildlife Signs Noted During Site Visit	Feature that Could Be Used for Movement[2]	Figure 2 Sheet No.
98.0 to 98.5	98.38 98.42 98.49	Sand Creek. Emergent and agricultural wetlands.	N/A	103-foot-long single span steel girder bridge over Sand Creek (MM 98.03) Single 48-inch culvert pipe (MM 98.09) Twin 6-foot tall by 5-foot wide, 76-foot-long concrete box culvert (MM 98.32)	25
99.9 to 101.0	99.93 100.01 100.13 100.35 100.53 100.94	Riparian area of the tributary of Sand Creek with large, wooded area south of the Study Area that connects with the Elkhorn River	N/A	66-foot-long Structure Number S27510009 (MM100.09)	29-31

Notes:

1 Crashes occurring between January 1, 2014, and December 31, 2020.

2 Only culverts with a minimum 12-square-foot opening were included.

3.3 Project Effects

The animal-related crash rate along this portion of US-275 (16 percent) is far below the statewide average for animal-related crashes on two-lane state highways in Nebraska (56 percent). That may mean that wildlife already successfully use structures to cross under US-275, that wildlife is not frequently crossing US-275 in the Study Area, that drivers are able to avoid those animals that cross the road, or that there is sufficient habitat on either side of US-275 so that wildlife does not need to cross the road. Additional traffic lanes and increased traffic speeds would inherently diminish habitat connectivity along the entire Project, but with wildlife-vehicle crash rates substantially lower than the state average and bridges or culverts at three of the five wildlife corridor locations, the overall impact on wildlife would be minimal.

4.0 References

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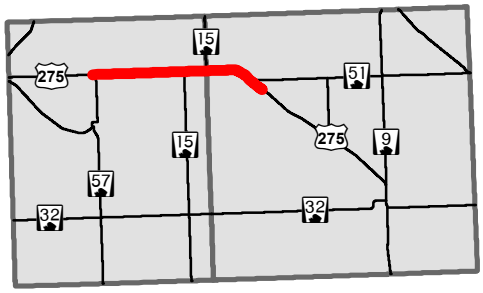
Appendix A – Figures



STANTON & CUMING COUNTY, NEBRASKA



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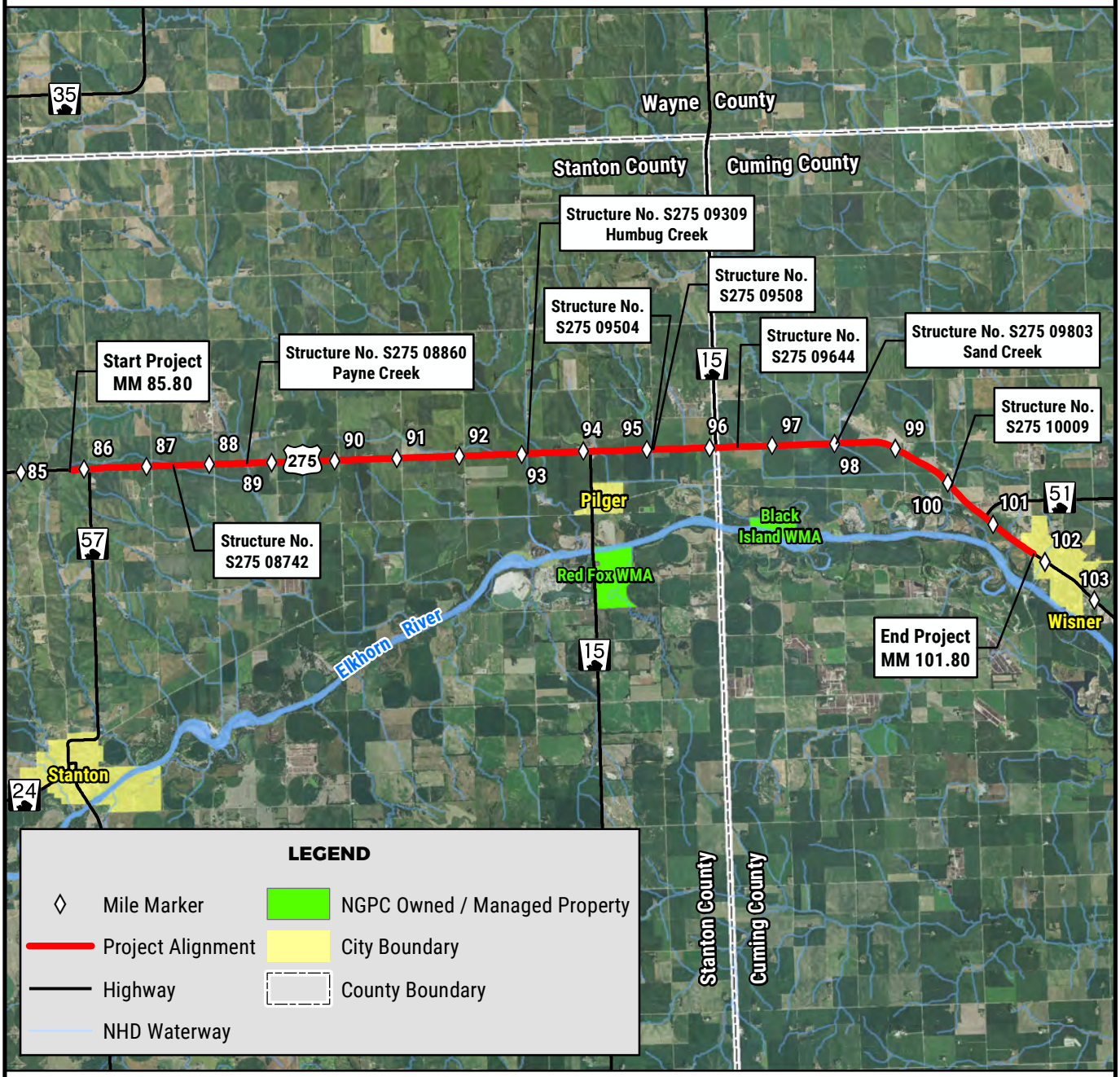

LEGEND

- Mile Marker
- Project Alignment
- Highway
- NHD Waterway
- NGPC Owned / Managed Property
- City Boundary
- County Boundary

NEBRASKA
DEPARTMENT OF TRANSPORTATION

PROJECT LOCATION

US-275 NORFOLK - WISNER
PN S-275-6(1052)
CN 32319

FIGURE 1

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NEBRASKA
DEPARTMENT OF TRANSPORTATION

Legend

- Mile Marker
- Wildlife Crashes
- Wildlife Crossing Structures
- Waterway
- Wildlife Corridors
- Wetland Complexes
- Village Boundary
- County Boundary

Land Use

- Open Water
- PEMA/C
- PEMF
- PFOA
- PSSA
- Pasture/Grassland
- Road/Developed
- Row Crop
- WIAS
- Woodland
- General Study Area
- Expanded Study Area
- Widen South Study Area

N

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FEET

POTENTIAL HABITAT

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

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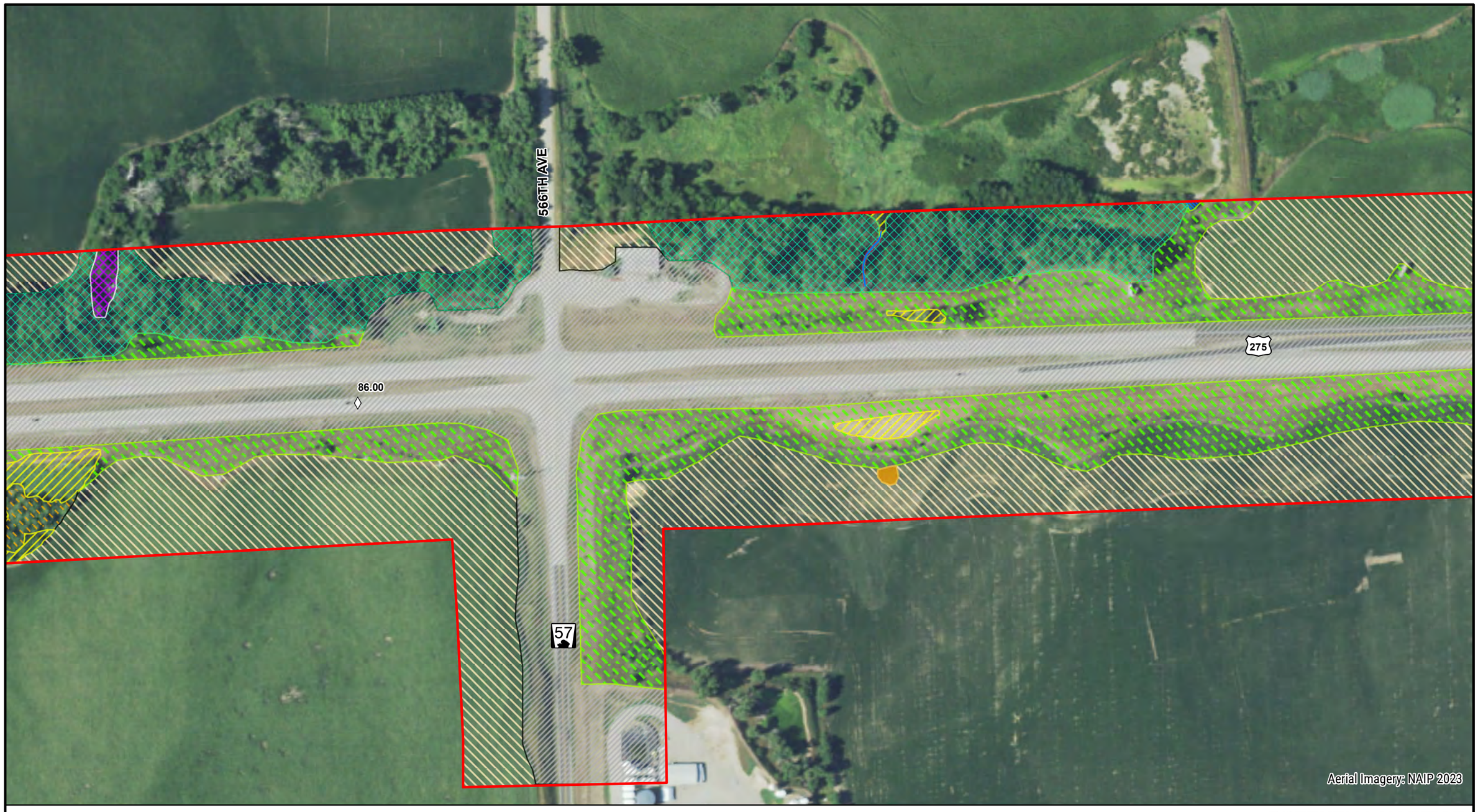

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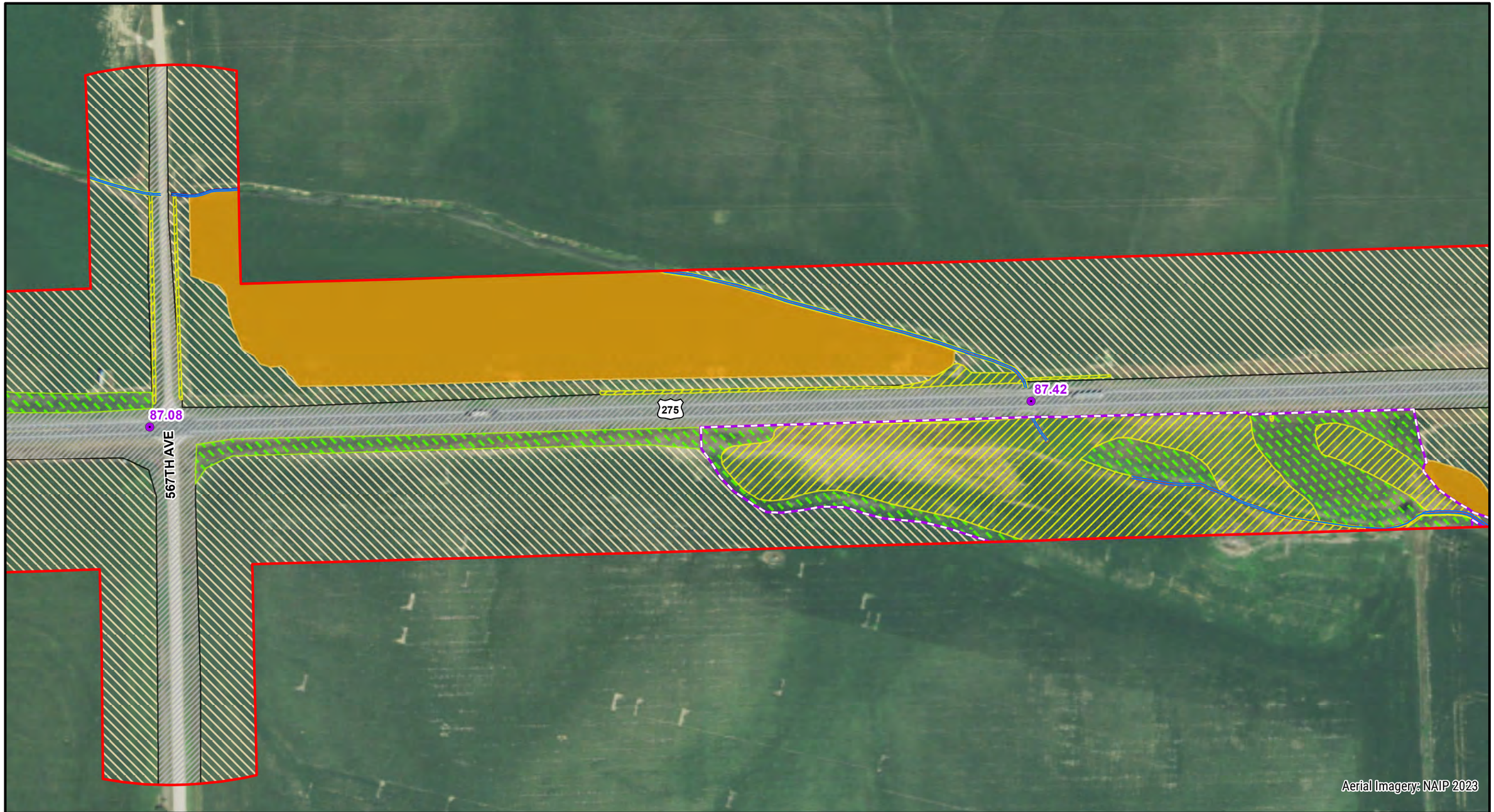

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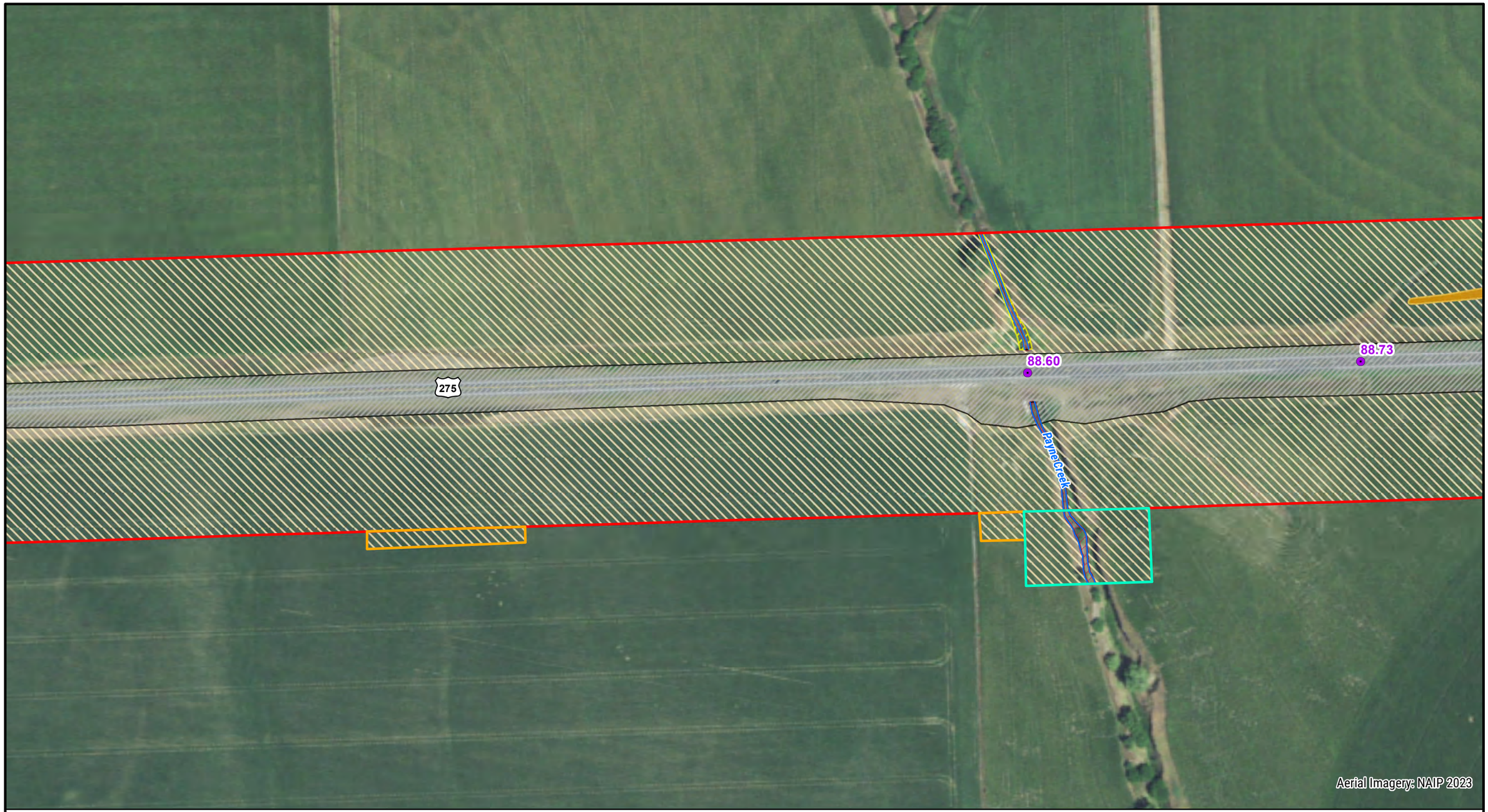

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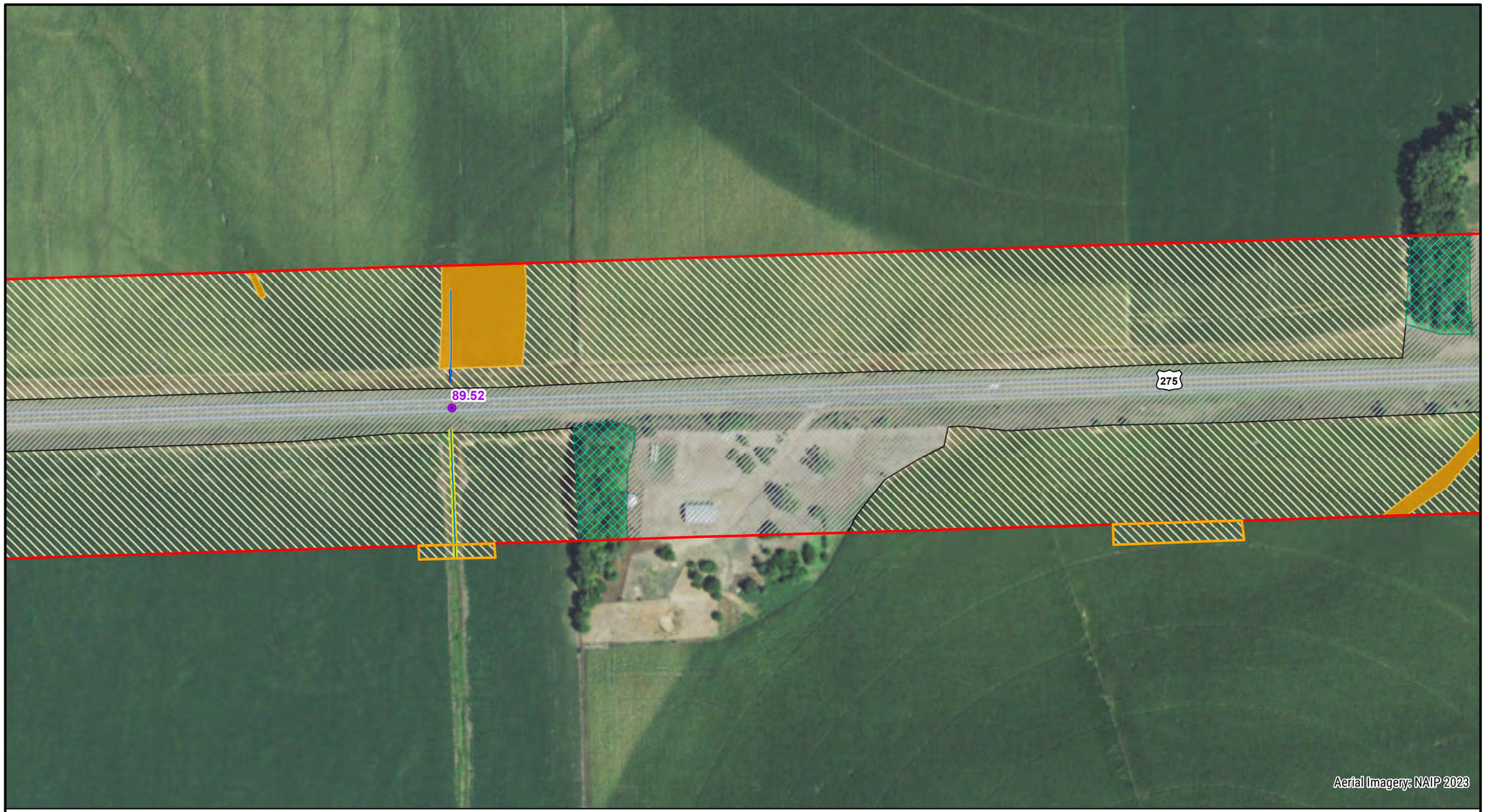

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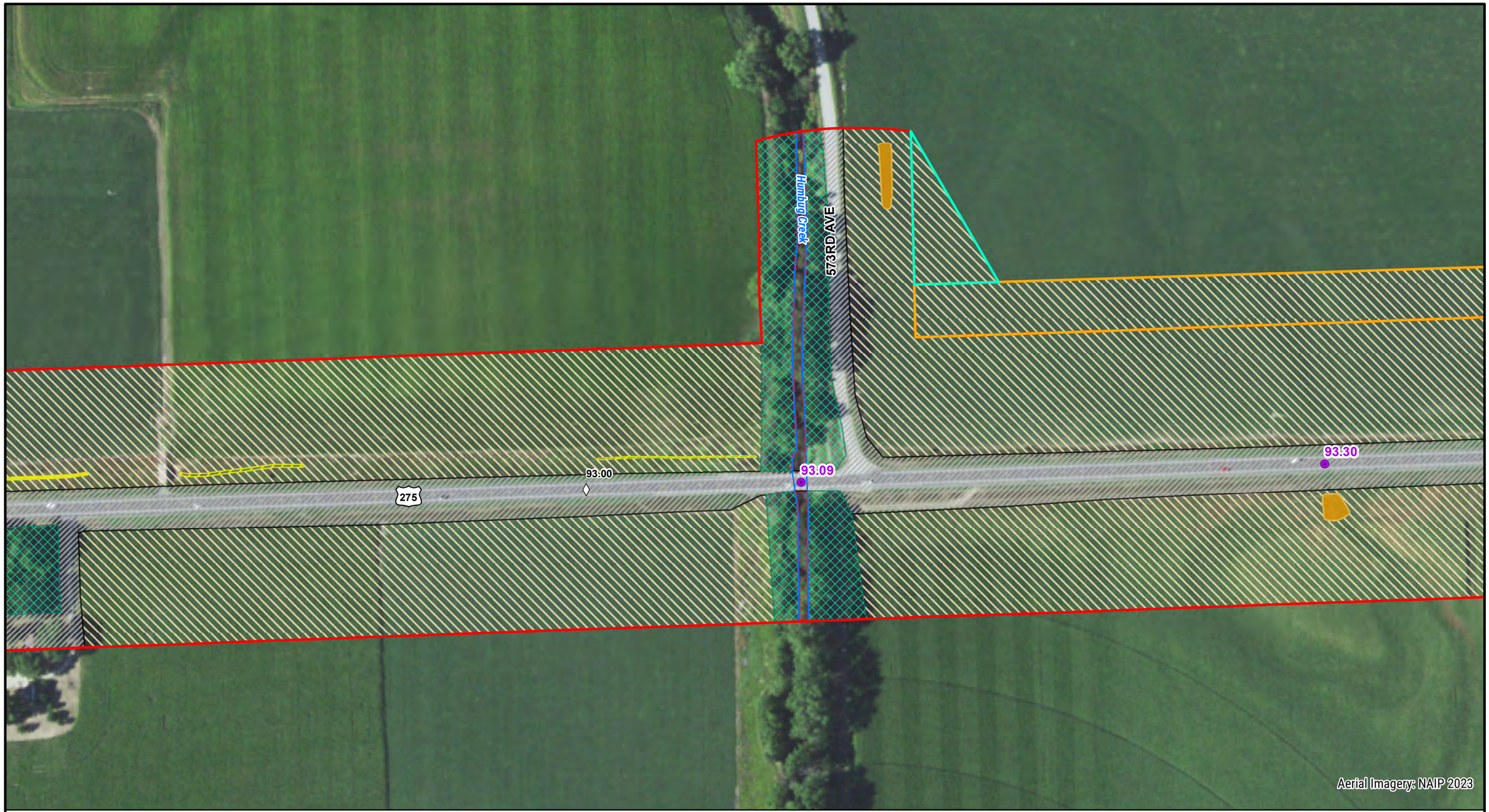

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- PEMF
- PFOA
- PSSA
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- Road/Developed
- Row Crop
- WIAS
- Woodland
- General Study Area
- Expanded Study Area
- Widen South Study Area

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POTENTIAL HABITAT

NORFOLK - WISNER
PROJECT. NO. S-275-6(1052)
CONTROL NO. 32319

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Aerial Imagery: NAIP 2023

NEBRASKA
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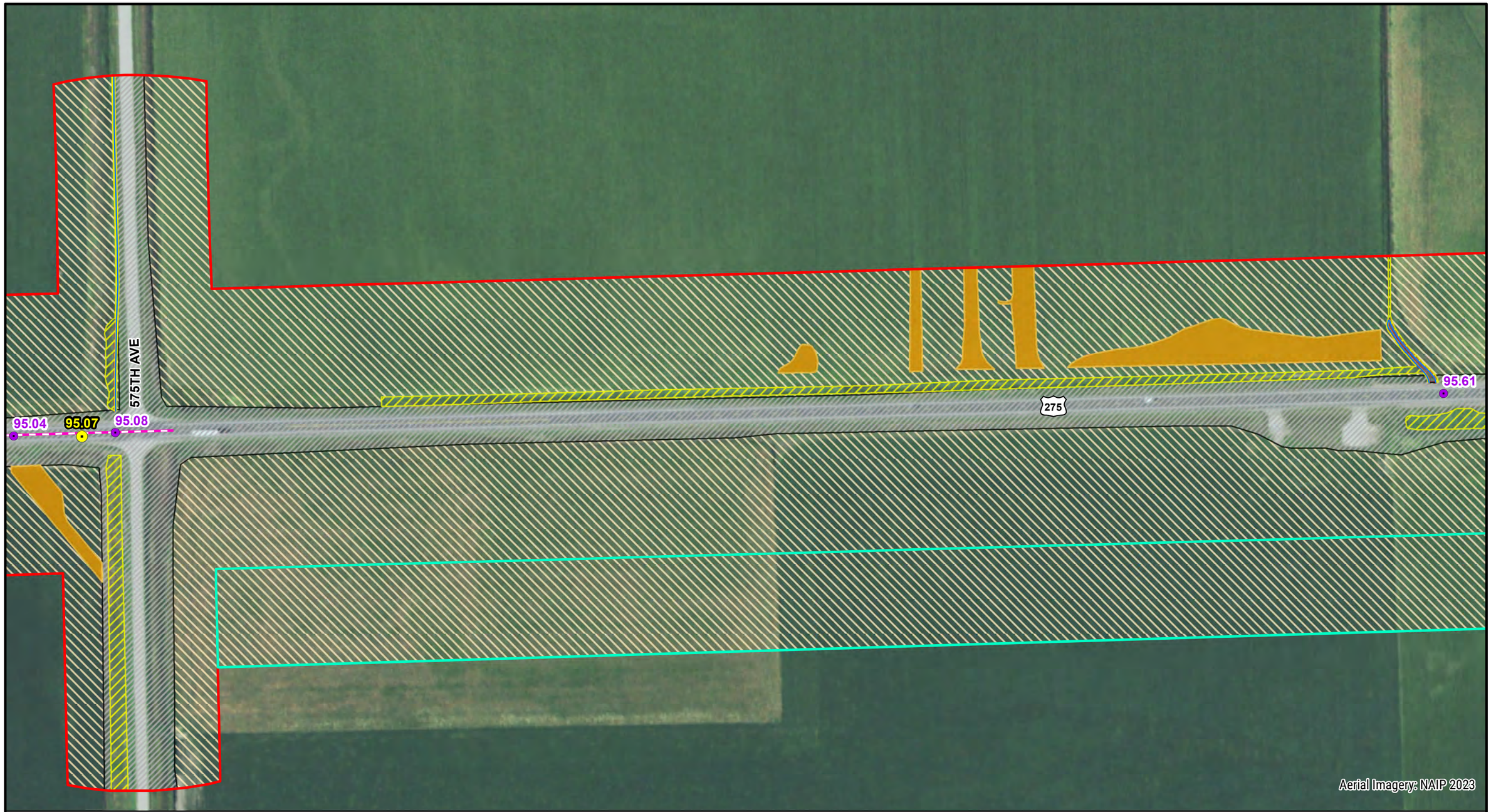

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STANTON COUNTY

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Aerial Imagery: NAIP 2023

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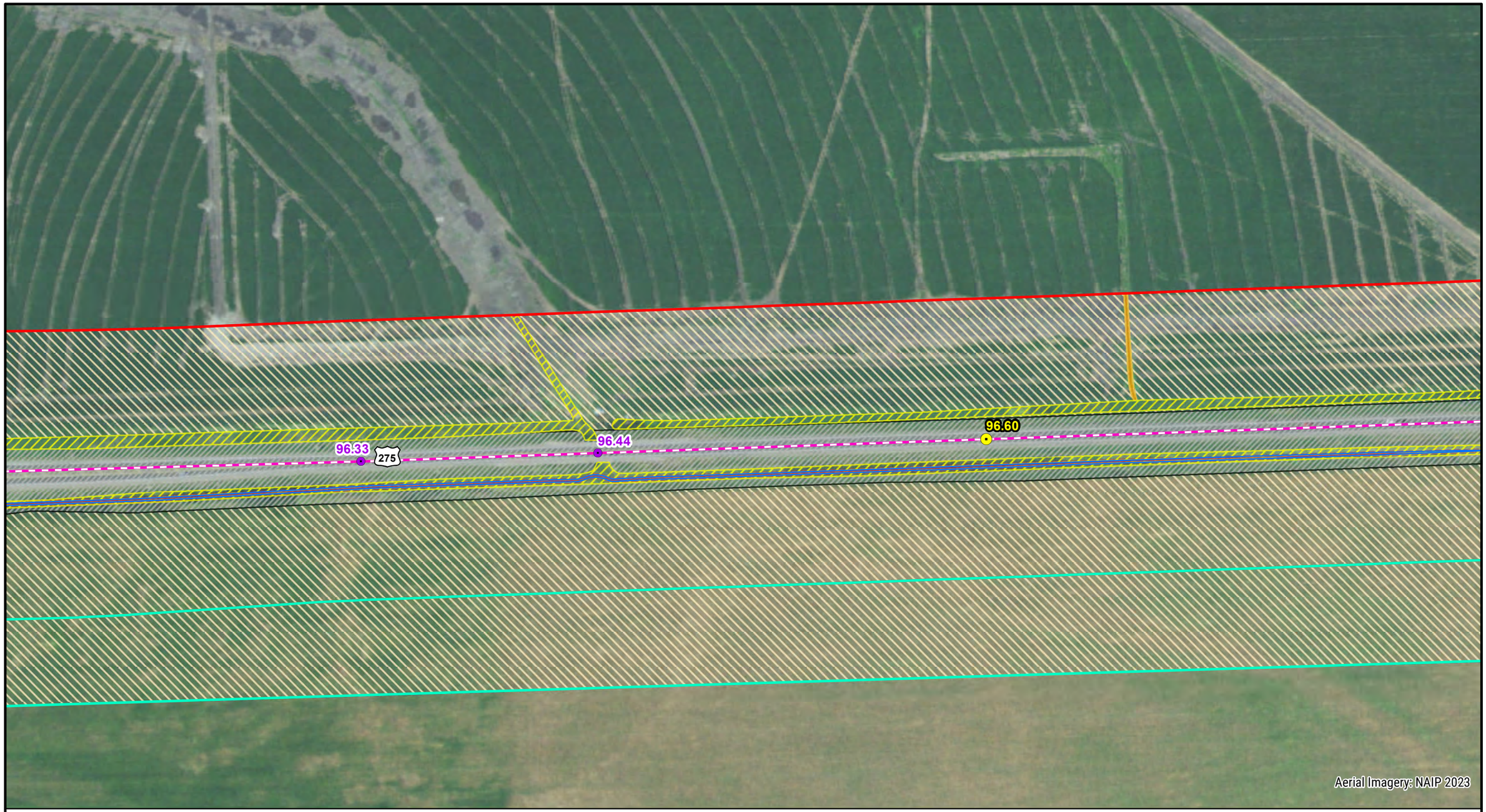

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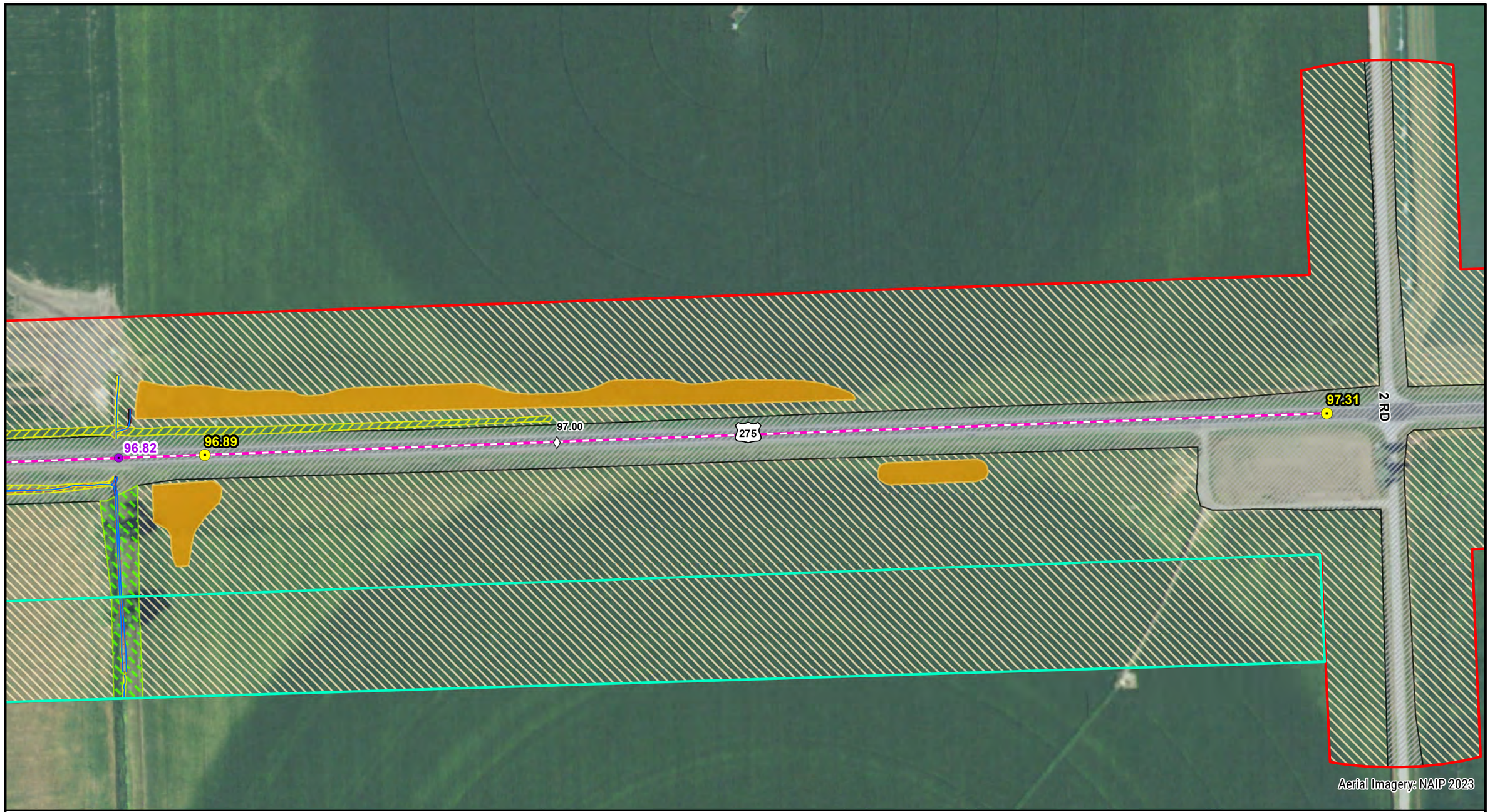

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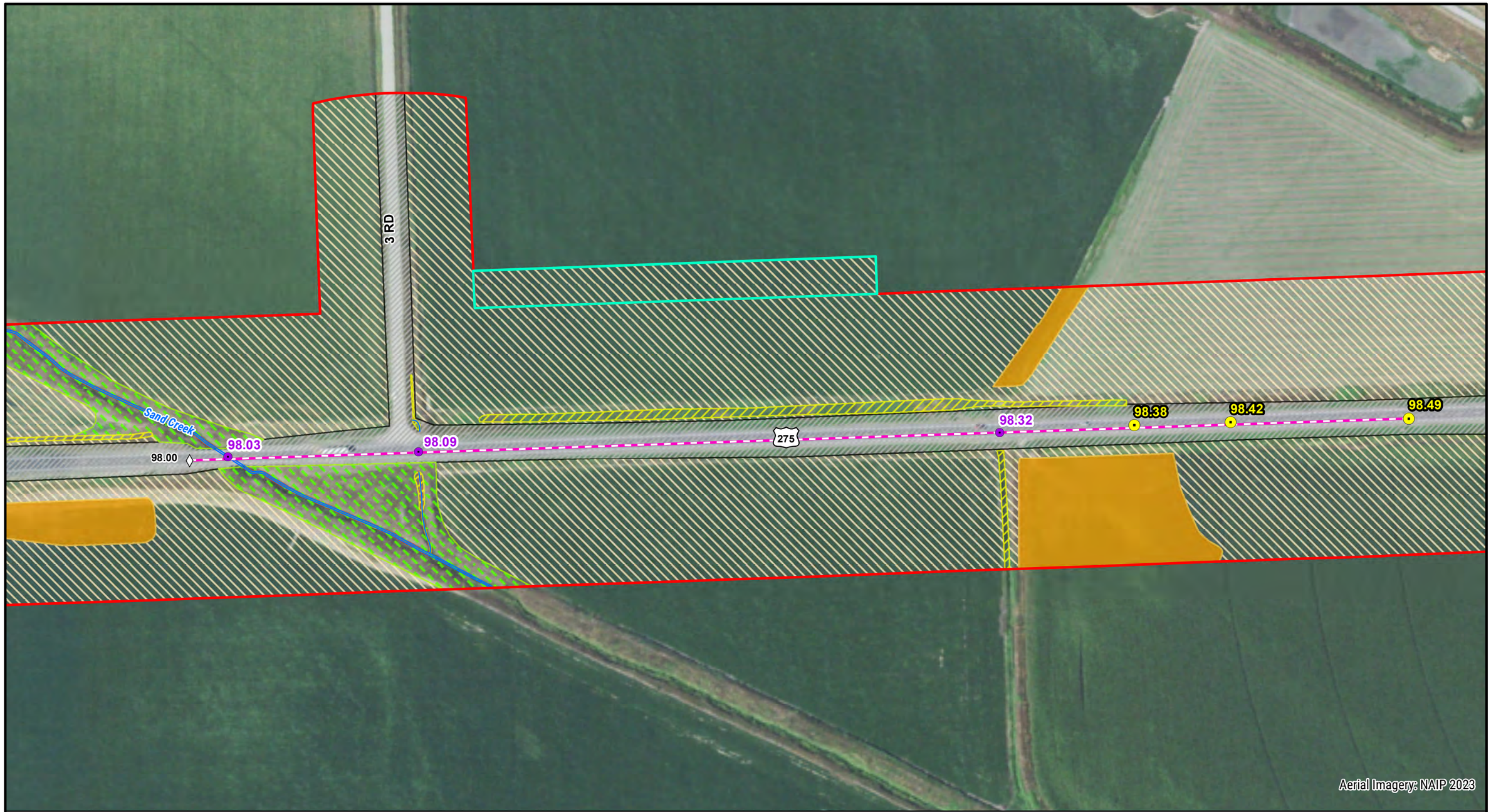

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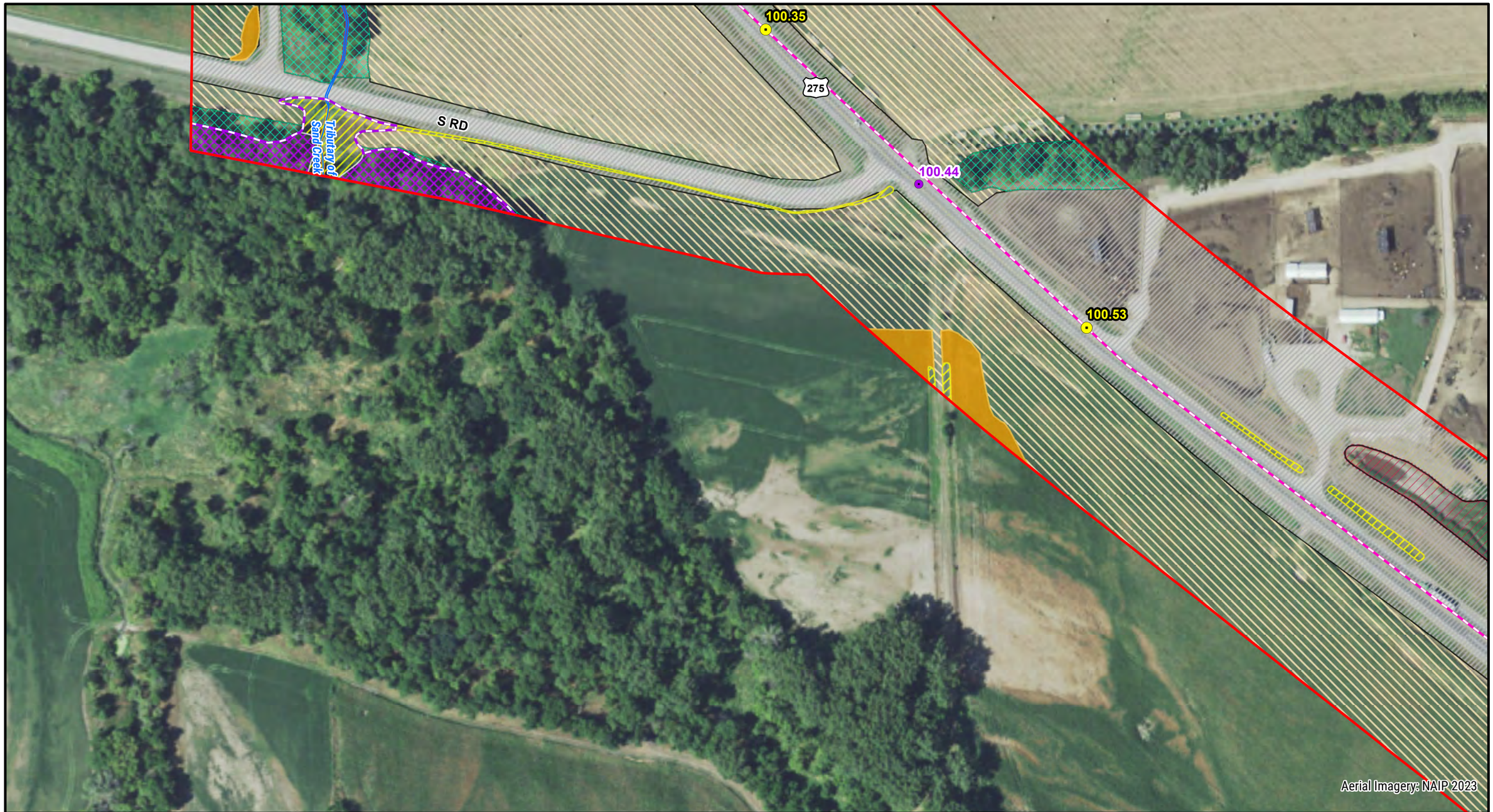

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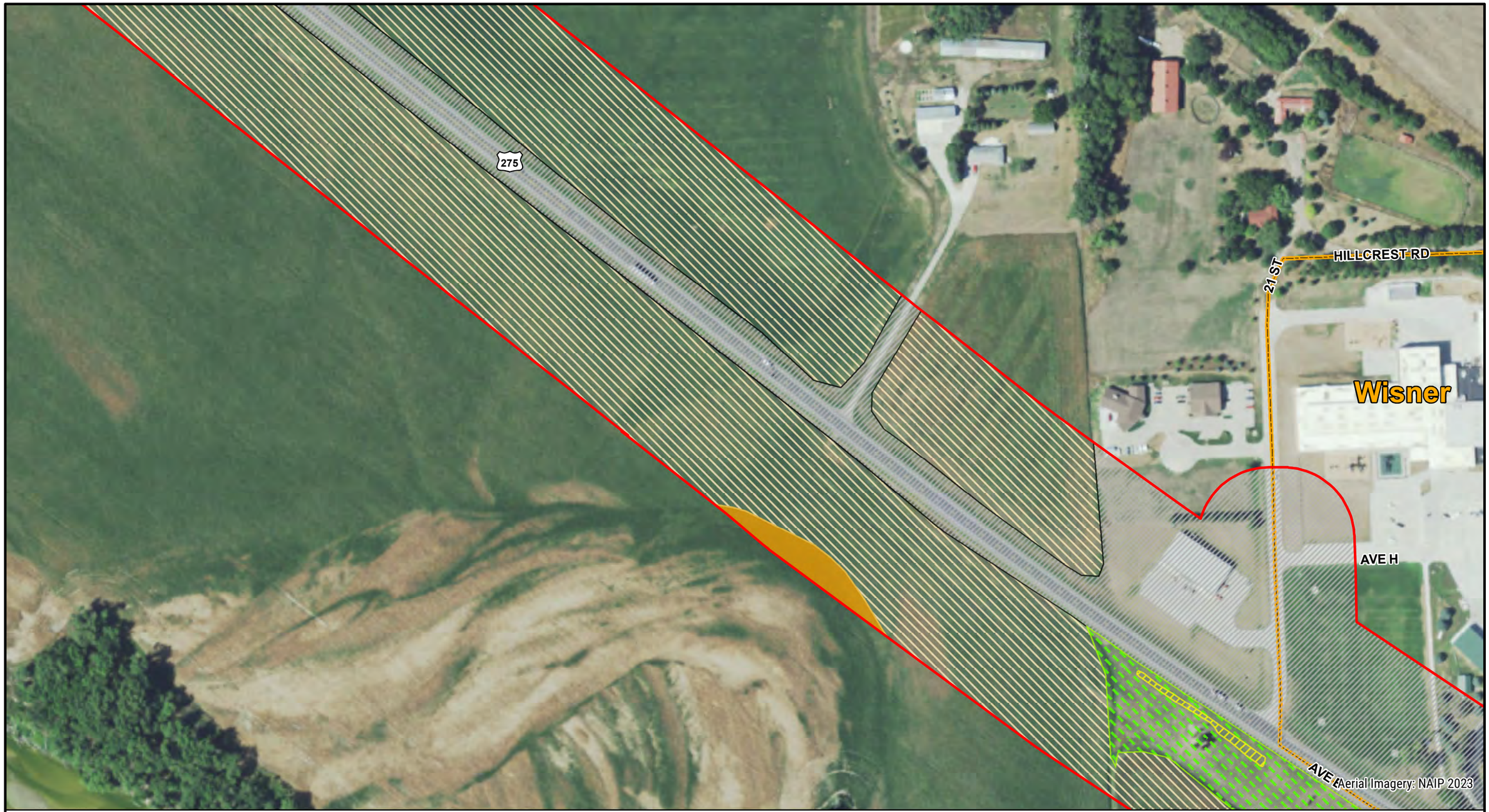

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Appendix P

Threatened and Endangered Species

Biological Assessment
NDOT PQS Memorandum

Project Name: US-275, Norfolk-Wisner Project Number: S-275-6(1052) Control Number: 32319

The biological assessment final approval on: **6/23/2023**

Date of Project Description used for this review: 12/22/2022

Threatened and Endangered Species Effect Determination:

☐ The Project(s) will have "No Effect" to all state or federally listed species or their designated critical habitat (CE Level 1).

☒ A "May Affect, Not Likely to Adversely Affect" determination is made for the following species/critical habitat with the conservation conditions listed below: **Northern Long-Eared Bat**

Northern long-eared bat (NLEB) was evaluated through the FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat on IPaC. This project received a consistency letter from USFWS for NLEB on 06/15/2023.

☐ This BA did NOT require further consultation with the resource agencies.

☒ This BA required further consultation with the resource agencies (CE Level 2).

USFWS Concurrence Date: 7/21/2023

NGPC Concurrence Date: 7/21/2023

☐ Unique conservation conditions were developed and are included below.

☐ A "May Affect, Likely to Adversely Affect" determination is made for the following species/critical habitat with the conservation conditions listed below: (CE Level 3).

Additional Coordination with Other Tribal or Federal Agencies:
NA
Description of Coordination:
NA

Platte River Flow Depletions and Borrow:
If the excavation of borrow sites will occur within the Platte River Basin and result in open water that could constitute a depletion to the Platte River system, upstream of the Loup confluence, the Nebraska Department of Natural Resources will be contacted. If a borrow site will result in a depletion to the Platte River system, downstream of the Loup confluence, NDOT will coordinate with the Nebraska Game and Parks Commission.

Bald and Golden Eagle Protection Act:
This project was also reviewed for potential impacts to bald and golden eagles. It has been determined that suitable habitat does exist within 0.5 miles of the Environmental Study Area. NDOT will utilize the Bald Eagle Survey Protocol to determine when a survey for nests and/or roosts should be conducted. If nest(s) are present within 0.5 miles of the project area, NDOT will notify the Nebraska Game and Parks Commission and United States Fish and Wildlife Service, and construction will not commence prior to their approval.

Migratory Bird Treaty Act:
NDOT has developed an Avian Protection Plan (APP) to reduce conflicts between construction of NDOT projects and the laws governing migratory birds. This procedure is designed to protect and conserve avian populations and reduce avian conflicts through changes in project scheduling (i.e. tree clearing outside of primary nesting period), increased migratory bird surveys, and changes in project construction timelines. NDOT will utilize its APP to reduce conflicts with migratory birds on this project.

Fish and Wildlife Coordination Act:
A wetland delineation has been conducted for this project alignment. Based upon preliminary design, its anticipated that 14.17 acres of wetlands and 3880 linear feet of channel will be impacted, however, as design progresses, this is anticipated to be reduced. No stream channel mitigation is anticipated at this time but remains unknown. A Section 404 individual permit and wetland mitigation are anticipated for this project. A mitigation site has been preliminarily identified southwest of Wisner and the elkhorn river. Based upon preliminary design and impact estimates, additional FWCA coordination is anticipated at this time.

Conservation Conditions: *Responsible Party for conservation condition shown in parentheses.*

Listed below are the required Conservation Conditions that apply to this project. These measures are not subject to change without the prior written approval of the NDOT Environmental Section. **Copy and paste the conditions listed below verbatim in the NEPA document, the Green Sheet, and in the contract documents:**

A-1 **Changes in Project Scope**. If there is a change in the project scope, the project limits, or environmental commitments, the Highway Project Manager shall coordinate with the NDOT Environmental Section to evaluate potential impacts prior to implementation. Environmental commitments are not subject to change without prior written approval from the NDOT Environmental Section. *(District Construction)*

A-2 **Conservation Conditions**. Conservation conditions are to be fully implemented within the project limits as shown on the plans. *(District Construction, Contractor)*

A-3 **Early Construction Starts**. Contractor requests for early construction starts must be coordinated by the Project Construction Engineer with the NDOT Environmental Section for approval to ensure avoidance of listed species sensitive lifecycle timeframes. Early start requests may require consultation with the USFWS and NGPC. Agency coordination time will vary depending on species and project location. *(District Construction, Contractor)*

A-4 **T&E Species**. If federal or state listed species are observed during construction, the Highway Project Manager will contact NDOT Environmental Section to determine if additional species conservation conditions would be required prior to continuing project construction activities. Contact NDOT Environmental for a reference of federal and state listed species. Coordination with the USFWS and NGPC may be required depending on the species identified and construction activities. *(NDOT Environmental, District Construction, Contractor)*

A-5 **Refueling**. Refueling will be conducted outside of those sensitive areas identified on the plans, in the contract, and/or marked in the field. *(Contractor)*

A-6 **Restricted Activities**. The following project activities shall, to the extent possible, be restricted to between the beginning and ending points (stationing, reference posts, mile markers, and/or section-township-range references) of the project, within the right-of-way designated on the project plans: borrow sites, burn sites, construction debris waste disposal areas, concrete and asphalt plants, haul roads, stockpiling areas, staging areas, and material storage sites.

For activities outside the project limits, the contractor should refer to the Nebraska Game and Park Commission website to determine which species ranges occur within the off-site area. The contractor should plan accordingly for any species surveys that may be required to approve the use of a borrow site, or other off-site activities. The contractor should review the T&E Matrix agreement (on NDOT's website), where species survey protocols can be found, to estimate the level of effort and timing requirements for surveys.

Any project related activities that occur outside of the project limits must be environmentally cleared/permitted with the Nebraska Game and Parks Commission as well as any other appropriate agencies by the contractor and those clearances/permits submitted to the District Construction Project Manager prior to the start of the above listed project activities. The contractor shall submit information such as an aerial photo showing the proposed activity site, a soil survey map with the location of the site, a plan-sheet or drawing showing the location and dimensions of the activity site, a minimum of 4 different ground photos showing the existing conditions at the proposed activity site, depth to ground water and depth of pit, and the "Platte River depletion status" of the site. The contractor must receive notice of acceptance from NDOT environmental, prior to starting the above listed project activities. These project activities cannot adversely affect state and/or federally listed species or designated critical habitat. *(NDOT Environmental, District Construction, Contractor)*.

A-7 **Waste/Debris**. Construction waste/debris will be disposed of in areas or a manner that will not adversely affect state and/or federally listed species and/or designated critical habitat. *(Contractor)*

A-8 **Post Construction Erosion Control.** Erosion control activities carried out by NDOT Maintenance or others after construction is complete, but prior to project close-out, shall adhere to any standard conservation conditions for species designated for the project limits during construction. *(NDOT Maintenance, District Construction, Contractor)*

S-1 **Fencing**. When project-related fence construction/relocation work is required to be done prior to the start of construction and if the fence work occurs outside urban or cropland areas not within swift fox or mountain plover range, then fencing can be installed/relocated at any time using the following criteria:

a. the fencing is temporary in nature and/or consists of only hand-driven posts
b. the work does not compact the soils (ex. through the use of heavy equipment) or cause soil disturbance beyond the driving of posts
c. within the **whooping crane** migration corridor, work occurring within a half of a mile of wetlands or perennial waters will occur between the hours of 10:00 am to 4:00pm when the work is between March 6 – April 29 or October 9 – November 15

If the fencing work cannot meet these criteria, then NDOT Right-of-Way Division shall coordinate with NDOT environmental prior to the completion of Right-of-way negotiations.

S-2 **Platte River Depletions.** All efforts will be made to design the project and select borrow sites to prevent depletions to the Platte River. If there is any potential to create a depletion, NDOT (during design) and the contractor (for borrow sites) shall follow the current Platte River depletion protocols for coordination, minimization, and mitigation. In general the following are considered de minimis depletions, but may still require agency coordination; a project which: a) creates an annual depletion less than 0.1 acre feet, b) creates a detention basin that detains water for less than 72 hours, c) any diverted water will be returned to its natural basin within 30 days, or d) creates a one-time depletion of less than 10 acre feet. (*NDOT Roadway Design, Contractor*)

S-3 **Revegetation**. All permanent seeding and plantings (excluding managed landscaped areas) shall use species and composition native to the project vicinity as shown in the Plan for the Roadside Environment. However, within the first 16 feet of the road shoulder, and within high erosion prone locations, tall fescue or perennial ryegrass may be used at minimal rates to provide quick groundcover to prevent erosion, unless state or federally listed threatened or endangered plants were identified in the project area during surveys. If listed **plants** were identified during survey, any seed mix requirements identified during resource agency consultations shall be used for the project. (*NDOT Environmental*)

S-4 **Sensitive Areas.** Environmentally Sensitive Areas will be marked on the plans, in the field, or in the contract by NDOT Environmental for avoidance. (*NDOT Environmental, District Construction*)

S-5 **Species Surveys.** If species surveys are required for this project, results will be sent by NDOT to the USFWS, NGPC, and if applicable COE. (*NDOT Environmental, District Construction*)

Northern Long-Eared Bat

GENERAL AMM 1
Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures.

TREE REMOVAL AMM 1
Modify all phases/aspects of the Project (e.g., temporary work areas, alignments) to avoid tree removal in excess of what is required to implement the project safely.

TREE REMOVAL AMM 2
Apply time of year (TOY) restrictions for tree removal (when bats are not likely to be present (November 1- March 31)), or Limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of the existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3
Ensure tree removal is limited to that specified in Project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

LIGHTING AMM 1
Direct temporary lighting away from suitable habitat during the active season (April 1- October 31).

LIGHTING AMM 2
When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of “uplight” of 0 and “backlight” as low as practicable.

Bald and Golden Eagle Protection Act

- Suitable **Bald Eagle** nesting and/or roosting habitat exists within 0.5 miles of the Environmental Study Area. If construction will begin between February 1 and April 15, a nest survey must be completed at least 1 but not more than 14 days prior to construction. If construction will begin between April 15 and October 1, a nest survey completed in March is sufficient, as nests will likely already be constructed if nesting will occur that year. However, a nest survey may be completed anytime during this timeframe, as long as it is completed prior to construction. If bald eagles are nesting in the area, consultation with NGPC and USFWS will be required prior to beginning construction activities. Eagle roosting surveys will be conducted if construction occurs between October 1 and January 31. *(NDOT Environmental, Contractor)*

NDOT Construction Project Managers should contact NDOT Environmental at 402-479-3546 or mitch.renteria@nebraska.gov at least 30 days prior to construction start to schedule any required surveys.

Mitch Renteria _____ 7/21/2023___

NDOT PQS Reviewer Date

This(These) Project(s) has(have) been reviewed under the programmatic agreement entitled Programmatic Agreement Among the Federal Highway Administration, U.S. Fish and Wildlife Service, Nebraska Department of Transportation, and Nebraska Game and Parks Commission for the Determination of Effects to State and Federal Listed Species From the Federal-Aid Highway Program (March 2023) and meet stipulations included in this agreement.

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by NDOT pursuant to 23 USC 326 and the First Renewed Memorandum of Understanding dated September 17, 2021, and executed by FHWA and NDOT.

2023-0094164

The U.S. Fish and Wildlife Service concurs with your determinations that the described project will not adversely affect listed species or critical habitat. Contact this office if changes are made or new information becomes available.

MARK PORATH Digitally signed by MARK PORATH Date: 2023.07.21 13:26:35 -05'00'

Project Leader, Nebraska Field Office Supervisor

NEBRASKA DIVISION

U.S. Department of Transportation
Federal Highway Administration

100 Centennial Mall North, Rm 220
Lincoln, Nebraska 68508
402-742-8460
402-742-8480

June 23, 2023

Brooke Stansberry
US Fish and Wildlife Service
9325 B South Alda Road
Wood River, NE 68883

Request for Concurrence: US-275 Norfolk-Wisner, Project S-275-6(1052), CN 32319, Stanton and Cuming Counties, Nebraska

Dear Ms. Stansberry:

FHWA respectfully requests your review of the enclosed Biological Assessment (BA) with an IPLE addressing impacts to Northern Long-eared Bats. Please provide your concurrence if you deem FHWA's determination appropriate. FHWA has determined that this project, US-275, Norfolk-Wisner (CN 32319), **may affect, but is not likely to adversely affect Northern Long-eared Bat.** This Project is unassigned, falling outside the September 2021 23 U.S.C. 326 Memorandum of Understanding (MOU) between the Federal Highway Administration (FHWA) and NDOT. Therefore, FHWA is the lead federal agency for the Project and has reviewed and signed the enclosed BA provided by NDOT. This project is federally funded Environmental Assessment. Impacts to wetlands are anticipated with this project; resulting in an estimated 14.17 acres of wetland impact and 3880 linear feet of stream channel impact. This project is anticipating to qualify for a Section 404 individual permit with a preliminarily identified wetland mitigation site located southwest of Wisner and the Elkhorn River.

This project is 16.0 miles in length and is located on U.S. Highway 275 (US-275) in Stanton and Cuming Counties, starting 0.30 mile west of the junction of US-275 and Nebraska Highway 57 (N-57) and extending east to 0.25 mile southeast of the west corporate boundary of Wisner. Construction may begin and/or end approximately 500 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement.

The existing roadway on this segment of US-275 generally consists of two 12-foot-wide asphalt overlaid concrete lanes and 10-foot-wide shoulders, of which 8 feet are paved with asphalt. The improvements on this project consist of expanding the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway on one side of the existing US-275 (called "2+2 Construction" by NDOT). In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 (N-15) at two locations and Nebraska Highway 51 (N-51) northwest of Wisner, along with various county roads. Additional work would consist of concrete repairs, culvert work, trench widening, removing and replacing pavement, bridge repairs, bridge replacement, lighting, and signing & striping. Grading would be required for the entire length of this project.

There are eight existing bridge sized structures located along the project. These include: a tributary of Payne Creek (Structure Number S275 08742), Payne Creek (Structure Number S275 08860), Humbug Creek (Structure Number S275 09309), three tributaries of the Elkhorn River (Structure Numbers S275 09504, S275 09508, S275 10009), a tributary of Sand Creek (Structure Number S275 09644), Sand Creek (Structure Number S275 09803). The structures would be extended, replaced, or used in place as determined at the Plan-In-Hand. A grade raise of the entire structure is anticipated for S075 08742 and S275 08860. Several new bridge size structures would be constructed with the project. These structures would have work in the waterway. New bridge sized structures requiring a grade raise would be constructed at the following locations: MM 92.79, 93.08, 96.09, and 96.83. New bridge sized structures not requiring a grade raise would be constructed at the following locations: MM 93.30, 94.23, 95.61, and 101.02. All of the listed bridge sized structures would require work in the waterway. The limits of pavement replacement would be determined by Roadway Design. Guardrail would be replaced.

This project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Some county roads would not be constructed under traffic. Traffic would be detoured utilizing adjacent county roads. Work would not be required on those routes. Additional property rights would be required to build this project. Access to adjacent properties would be maintained during construction but may be limited at times due to phasing requirements. Details would be determined at the construction meeting.

Should you have any questions, please do not hesitate to contact me at (402)742-8465, or dillon.dittmer@dot.gov. Thank you for your time and consideration.

Sincerely,



Dillon Dittmer, PWS
Environmental Protection Specialist
Federal Highway Administration – Nebraska Division

Enclosure: Biological Assessment for US275, Norfolk-Wisner; 32319; S-275-6(1052)

ec: Jessica Tapp, NGPC
Jeff Hartman, NDOT
Mitch Renteria, NDOT

Project Name: US-275, Norfolk-Wisner *Updated 2/17/2023*
Federal-aid Number: S-275-6(1052)
Control Number: 32319

Overview of Effects and Required Conservation Conditions

Threatened and Endangered Species Effect Determination:

☐ This project will have "no effect" to all listed species and their habitats.
**If an IPLE was written to justify the no effect determination, the BA is sent to FHWA for concurrence.*

☒ A "may affect, not likely to adversely affect" determination is made for the following species/critical habitat with the conservation conditions listed below *(and will have "no effect" on all other listed species, except for any listed in the 3rd check box)*: **Northern Long-eared Bat**

Northern long-eared bat (NLEB) was evaluated through the FHWA, FRA, FTA Programmatic Agreement for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat on IPaC. This project received a likely to adversely affect consistency letter by USFWS for NLEB on 06/15/2023.

☐ A "may affect, likely to adversely affect" determination is made for the following species/critical habitat with the conservation conditions listed below *(and will have "no effect" on all other listed species, except for any listed above)*:

Platte River Flow Depletions and Borrow:
If the excavation of borrow sites will occur within the Platte River Basin and result in open water that could constitute a depletion to the Platte River system, upstream of the Loup confluence, the Nebraska Department of Natural Resources will be contacted. If a borrow site will result in a depletion to the Platte River system, downstream of the Loup confluence, NDOT will coordinate with the Nebraska Game and Parks Commission.

Migratory Bird Treaty Act:
NDOT has developed an Avian Protection Plan (APP) to reduce conflicts between construction of NDOT projects and the laws governing migratory birds. This procedure is designed to protect and conserve avian populations and reduce avian conflicts through changes in project scheduling (i.e. tree clearing outside of primary nesting period), increased migratory bird surveys, and changes in project construction timelines. NDOT will utilize its APP to reduce conflicts with migratory birds on this project.

Bald and Golden Eagle Protection Act:
This project was also reviewed for potential impacts to bald and golden eagles. It appears that the environmental study area contains suitable nesting and winter roosting habitat for eagles. According to the Natural Heritage Database, there are records of eagles and eagle nests within five miles, and that suitable habitat does exist within 0.5 miles of the Environmental Study Area. NDOT will utilize the Bald Eagle Survey Protocol to determine when a survey for nests/roosts should be conducted. If the survey identifies nest(s) are present within 0.5 miles of the project area, NDOT will notify NGPC and the Service, and construction will not commence prior to their approval.

Fish and Wildlife Coordination Act:
A wetland delineation has been conducted for this project alignment. Based upon preliminary design, its anticipated that 14.17 acres of wetlands and 3880 linear feet of channel will be impacted, however, as design progresses, this is anticipated to be reduced. No stream channel mitigation is anticipated at this time but remains unknown. A Section 404 individual permit and wetland mitigation are anticipated for this project. A mitigation site has been preliminarily identified southwest of Wisner and the elkhorn river. Based upon preliminary design and impact estimates, additional FWCA coordination is anticipated at this time.

Conservation Conditions: *Responsible Party for conservation condition shown in parentheses.*
Listed below are the required Conservation Conditions that apply to this project. These measures are not subject to change without the prior written approval of the NDOT Environmental Section. **Copy and paste the conditions listed below verbatim in the NEPA document, the Green Sheet, and in the contract documents:**

A-1 **Changes in Project Scope**. If there is a change in the project scope, the project limits, or environmental commitments, the Highway Project Manager shall coordinate with the NDOT Environmental Section to evaluate potential impacts prior to implementation. Environmental commitments are not subject to change without prior written approval from the NDOT Environmental Section. *(District Construction)*

A-2 **Conservation Conditions**. Conservation conditions are to be fully implemented within the project limits as shown on the plans. *(District Construction, Contractor)*

A-3 **Early Construction Starts**. Contractor requests for early construction starts must be coordinated by the Project Construction Engineer with the NDOT Environmental Section for approval to ensure avoidance of listed species sensitive lifecycle timeframes. Early start requests may require consultation with the USFWS and NGPC. Agency coordination time will vary depending on species and project location. *(District Construction, Contractor)*

A-4 **T&E Species**. If federal or state listed species are observed during construction, the Highway Project Manager will contact NDOT Environmental Section to determine if additional species conservation conditions would be required prior to continuing project construction activities. Contact NDOT Environmental for a reference of federal and state listed species. Coordination with the USFWS and NGPC may be required depending on the species identified and construction activities. *(NDOT Environmental, District Construction, Contractor)*

A-5 **Refueling**. Refueling will be conducted outside of those sensitive areas identified on the plans, in the contract, and/or marked in the field. *(Contractor)*

A-6 **Restricted Activities**. The following project activities shall, to the extent possible, be restricted to between the beginning and ending points (stationing, reference posts, mile markers, and/or section-township-range references) of the project, within the right-of-way designated on the project plans: borrow sites, burn sites, construction debris waste disposal areas, concrete and asphalt plants, haul roads, stockpiling areas, staging areas, and material storage sites.

For activities outside the project limits, the contractor should refer to the Nebraska Game and Park Commission website to determine which species ranges occur within the off-site area. The contractor should plan accordingly for any species surveys that may be required to approve the use of a borrow site, or other off-site activities. The contractor should review the T&E Matrix agreement (on NDOT's website), where species survey protocols can be found, to estimate the level of effort and timing requirements for surveys.

Any project related activities that occur outside of the project limits must be environmentally cleared/permitted with the Nebraska Game and Parks Commission as well as any other appropriate agencies by the contractor and those clearances/permits submitted to the District Construction Project Manager prior to the start of the above listed project activities. The contractor shall submit information such as an aerial photo showing the proposed activity site, a soil survey map with the location of the site, a plan-sheet or drawing showing the location and dimensions of the activity site, a minimum of 4 different ground photos showing the existing conditions at the proposed activity site, depth to ground water and depth of pit, and the "Platte River depletion status" of the site. The contractor must receive notice of acceptance from NDOT environmental, prior to starting the above listed project activities. These project activities cannot adversely affect state and/or federally listed species or designated critical habitat. *(NDOT Environmental, District Construction, Contractor).*

A-7 **Waste/Debris**. Construction waste/debris will be disposed of in areas or a manner which will not adversely affect state and/or federally listed species and/or designated critical habitat. *(Contractor)*

A-8 **Post Construction Erosion Control.** Erosion control activities carried out by NDOT Maintenance or others after construction is complete, but prior to project close-out, shall adhere to any standard conservation conditions for species designated for the project limits during construction. *(NDOT Maintenance, District Construction, Contractor)*

S-1 **Fencing**. When project-related fence construction/relocation work is required to be done prior to the start of construction and if the fence work occurs outside urban or cropland areas not within swift fox or mountain plover range, then fencing can be installed/relocated at any time using the following criteria:

a. the fencing is temporary in nature and/or consists of only hand-driven posts
b. the work does not compact the soils (ex. through the use of heavy equipment) or cause soil disturbance beyond the driving of posts
c. within the **whooping crane** migration corridor, work occurring within a half of a mile of wetlands or perennial waters will occur between the hours of 10:00 am to 4:00pm when the work is between March 6 – April 29 or October 9 – November 15

If the fencing work cannot meet these criteria, then NDOT Right-of-Way Division shall coordinate with NDOT environmental prior to the completion of Right-of-way negotiations.

S-2 **Platte River Depletions.** All efforts will be made to design the project and select borrow sites to prevent depletions to the Platte River. If there is any potential to create a depletion, NDOT (during design) and the contractor (for borrow sites) shall follow the current Platte River depletion protocols for coordination, minimization, and mitigation. In general the following are considered de minimis depletions, but may still require agency coordination; a project which: a) creates an annual depletion less than 0.1 acre feet, b) creates a detention basin that detains water for less than 72 hours, c) any diverted water will be returned to its natural basin within 30 days, or d) creates a one-time depletion of less than 10 acre feet. (*NDOT Roadway Design, Contractor*)

S-3 **Revegetation**. All permanent seeding and plantings (excluding managed landscaped areas) shall use species and composition native to the project vicinity as shown in the Plan for the Roadside Environment. However, within the first 16 feet of the road shoulder, and within high erosion prone locations, tall fescue or perennial ryegrass may be used at minimal rates to provide quick groundcover to prevent erosion, unless state or federally listed threatened or endangered plants were identified in the project area during surveys. If listed **plants** were identified during survey, any seed mix requirements identified during resource agency consultations shall be used for the project. (*NDOT Environmental*)

S-4 **Sensitive Areas.** Environmentally Sensitive Areas will be marked on the plans, in the field, or in the contract by NDOT Environmental for avoidance. (*NDOT Environmental, District Construction*)

S-5 **Species Surveys.** If species surveys are required for this project, results will be sent by NDOT to the USFWS, NGPC, and if applicable COE. (*NDOT Environmental, District Construction*)

Northern Long-Eared Bat

GENERAL AMM 1
Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures.

TREE REMOVAL AMM 1
Modify all phases/aspects of the Project (e.g., temporary work areas, alignments) to avoid tree removal in excess of what is required to implement the project safely.

TREE REMOVAL AMM 2
Apply time of year (TOY) restrictions for tree removal (when bats are not likely to be present (November 1- March 31)), or Limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of the existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3
Ensure tree removal is limited to that specified in Project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

LIGHTING AMM 1
Direct temporary lighting away from suitable habitat during the active season (April 1- October 31).

LIGHTING AMM 2
When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

The overall Biological Assessment package was prepared by:

Signature	Printed Name	Title and Agency/Firm	Date
Emily Schmit	Emily Schmit	Environmental Scientist, HDR	6/16/2023

Approved by the following qualified NDOT biologist:

Signature	Printed Name	Date
Mitch Renteria	Mitch Renteria	6/22/2023

☒ Check if FHWA signature required *(NDOT Environmental use only).*
Approved by FHWA Environmental *(FHWA signature only needed when the project is unassigned under the most current CE MOU and the project results in a "may affect" determination, or an Individual Project Level Evaluation, modified Conservation Conditions, or Individual BA is required.):*

Signature	Printed Name	Date
Dillon Dittmer, PWS	Digitally signed by Dillon Dittmer, PWS Date: 2023.06.23 09:42:31 -05'00'	

☒ Check if USFWS and/or NGPC concurrence is required *(NDOT Environmental use only).*

☐ Check if the project occurs on federal or tribal land *(NDOT Environmental use only)*.
If yes, provide federal or tribal agency name: _____

Species Evaluation Parameters

Form to assist in completing the Endangered & Threatened Species Evaluation Procedures Guide Sheet and Determining the Potential Effect

The following questions identify the potential for suitable habitat within the Action Area, or if the project is within the range of a federally or state listed species. If a species is listed during construction or implementation, the species will be addressed in the Individual Project Level Evaluation document.

Proposed Project Information

Project Sponsor and Contact: Mitch Renteria, Nebraska Department of Transportation

Biologist Completing Assessment: Emily Schmit, HDR Engineering, Inc.

Project No.: S-275-6(1052)

Control No.: 32319

Project Name: US-275, Norfolk-Wisner

County: Stanton and Cuming Counties

Limits of Work

Start: US Highway 275 (US-275) Mile Marker (MM) 85.80

End: US-275 MM 101.80

Total Length: 16.0 Miles

Activity Checklist Date: 06/16/2023

Project Description Date: 12/22/2022

Project Description: This project is 16.0 miles in length and is located on U.S. Highway 275 (US-275) in Stanton and Cuming Counties, starting 0.30 mile west of the junction of US-275 and Nebraska Highway 57 (N-57) and extending east to 0.25 mile southeast of the west corporate boundary of Wisner. Construction may begin and/or end approximately 500 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement.

The existing roadway on this segment of US-275 generally consists of two 12-foot-wide asphalt overlaid concrete lanes and 10-foot-wide shoulders, of which 8 feet are paved with asphalt.

The improvements on this project consist of expanding the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway on one side of the existing US-275 (called “2+2 Construction” by NDOT). In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 (N-15) at two locations and Nebraska Highway 51 (N-51) northwest of Wisner, along with various county roads. Additional work would consist of concrete repairs, culvert work, trench widening, removing and replacing pavement, bridge repairs, bridge replacement, lighting, and signing & striping. Grading would be required for the entire length of this project.

There are eight existing bridge sized structures located along the project. These include: a tributary of Payne Creek (Structure Number S275 08742), Payne Creek (Structure Number S275 08860), Humbug Creek (Structure Number S275 09309), three tributaries of the Elkhorn River (Structure Numbers S275 09504, S275 09508, S275 10009), a tributary of Sand Creek (Structure Number S275 09644), Sand Creek (Structure Number S275 09803). The structures would be extended, replaced, or used in place as determined at the Plan-In-Hand. A grade raise of the entire structure is anticipated for S075 08742 and S275 08860. Several new bridge size structures would be constructed with the project. These structures would have work in the waterway. New bridge sized structures requiring a grade raise would be constructed at the following locations: MM 92.79, 93.08, 96.09, and 96.83. New bridge sized structures not requiring a grade raise would be constructed at the following locations: MM 93.30, 94.23, 95.61, and 101.02. All of the listed bridge sized structures would require work in the waterway. The limits of pavement replacement would be determined by Roadway Design. Guardrail would be replaced.

This project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Some county roads would not be constructed under traffic. Traffic would be detoured utilizing adjacent county roads. Work would not be required on those routes. Additional property rights would be required to build this project. Access to adjacent properties would be maintained during construction but may be limited at times due to phasing requirements. Details would be determined at the construction meeting.

Project Limits: The Project Limits are defined as the area between the project beginning and end points, from right-of-way to right-of-way, as marked in the construction plans, including temporary construction easements, detours, and any designated waste, staging, stockpile or material sites.

Project Action Area: The Action Area extends 1.1 mile from the project limits. This distance represents the greatest likely extent of project effects based on the activities associated with road projects.

Project Action Area Habitat Description: This project is predominantly located within the Rolling Hills Topographic Region, with a portion of the project intersecting the Valleys Topographic Region north of Pilger. The Rolling Hills region consists of hilly land with moderate to steep slopes and rounded ridge crests. In eastern Nebraska, the Rolling Hills region is mostly glacial till that has been eroded and mantled by loess. The Valleys region consists of flat-lying land along the major streams. The materials of the Valleys region are stream-deposited silt, clay, sand, and gravel.

According to the Nebraska Natural Legacy Project (Schneider et al. 2011), the Project is in the Tallgrass Prairie Ecoregion. Historically, the Tallgrass Prairie Ecoregion is upland prairie with diverse community types ranging from deciduous woodlands to wet meadows and saline wetlands. The ecoregion receives between 25 and 36 inches of precipitation annually, more than any other ecoregion in the state. Common native vegetation includes big bluestem, Indian grass, switchgrass, Canada wild-rye, and a variety of wildflowers and forbs such as showy goldenrod, skyblue aster, and purple coneflower. Most watercourses in the ecoregion, like the Missouri River, are lined with riparian forests composed of cottonwood, willow, boxelder, American elm, oak, black walnut, hickory, and other deciduous trees. Glaciers, wind, and water have shaped the topography of the tallgrass region and today the land surface is mainly rolling hills intersected with stream valleys. Receding glaciers left behind till deposits, hilly moraines, and windblown loess. Approximately two percent of Nebraska's tallgrass prairie remains intact. This is the result of land-use shifting toward agricultural production and urban development.

The Study Area is dominated by row-crop agricultural land or areas used for livestock production. The village of Pilger is located 0.50 mile to the south of project alignment at MM 94.10. The project's eastern terminus resides within the municipal limits of the village of Wisner, consisting of residential, industrial, and commercial development. Incised waterways meander between fields, generally flowing to the south and southeast to confluence with the Elkhorn River. This stretch of the Elkhorn River, which parallels the Project to the south, consists of a meandering waterway and wide floodplain with remnant oxbows, thick riparian corridor, recreational development, and sand/gravel mining facilities. Visual sight distance between the project and the Elkhorn River is impeded by the river's thick riparian corridor. There are sandbars / sparsely vegetated sand/gravel areas within 1.10 miles of the project. The project intersects twelve NHD-mapped waterways including Payne Creek, Humbug Creek, and Sand Creek. Trees are present in areas with farmsteads and along the riparian corridors of Payne Creek, Humbug Creek, a tributary of Sand Creek, and the Elkhorn River.

Interior Least Tern / Piping Plover:
The project parallels the Elkhorn River, ranging between 5 miles north of the river at the project's western terminus to 0.25-mile northeast of the river at the project's eastern terminus. Visual and auditory stressors between the project and the Elkhorn River are impeded by the river's thick riparian corridor. The project limits span through agricultural land and lack suitable un-vegetated or sparsely vegetated sand, shale, or gravel such as a beach peninsula, or bars. Wetland mitigation for the project is proposed to occur off-site along an old oxbow of the Elkhorn River located southwest of the village of Wisner and the Elkhorn River. The mitigation site consists of cropland and a densely vegetated oxbow of the Elkhorn River. While the proposed mitigation site and the overall project action area are in close proximity to the Elkhorn River that could support suitable habitat for interior least tern and piping plover, the proposed mitigation site and project area of effects do not have appropriate habitat for either species as there is substantial visual and auditory shielding from the river which will prevent impacts to the species. Therefore, the habitat questions in Step 2 have been checked "no".

Field Visit Summary, as applicable: On 5/31/2023, Environmental Specialist III Matthew Greiner surveyed existing structures on the proposed alignment in suitable habitat utilizing the process set forth in the FHWA, FRA, FTA Programmatic Agreement/Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat. No use by any bat species was identified at the structures and was documented on Bridge/Structure Assessment Forms for the IPAC review included in this Biological Assessment Package.

Nebraska Federal and State Listed Species and Critical Habitat

E = Endangered	P = Proposed for Listing	XN = Experimental Population
T = Threatened	C = Candidate (no specific review required)	CH = Critical Habitat

Animals

American Burying Beetle (T)
Black-footed Ferret (E)
Blacknose Shiner (E)
Eastern Black Rail (T)
Eskimo Curlew (E)
Finescale Dace (T)
Gray Wolf (E)
Interior Least Tern (E)
Lake Sturgeon (T)
Mountain Plover (T)
Northern Long-Eared Bat (E)
Northern Redbelly Dace (T)
Pallid Sturgeon (E)
Piping Plover (T)
Salt Creek Tiger Beetle (E; CH)
Scaleshell Mussel (E)
Southern Flying Squirrel (T)
Sturgeon Chub (E)
Swift Fox (E)
Thick-Billed Longspur (T)
Timber Rattlesnake (T)
Topeka Shiner (E; CH)
Western Massasauga (T)
Whooping Crane (E; CH)

Plants

American Ginseng (T)
Blowout Penstemon (T)
Colorado Butterfly Plant (T)
Saltwort (E)
Small White Lady's Slipper (T)
Ute Ladies'-tresses (T)
Western Prairie Fringed Orchid (T)

Species Information: http://www.fws.gov/nebraskaes/species.php and http://outdoornebraska.gov/naturalheritageprogram/#rangemaps
Nature Serve: http://www.natureserve.org

STEP 1: RANGE AND OCCURRENCE EVALUATION

Species	Is the Project Action Area in the estimated range of the species as identified by the USFWS and NGPC[1]?	Are there Natural Heritage records within 5-miles of the Project Limits in the last 30 years?
American Burying Beetle[2]	☐ Yes ☒ No	☐ Yes ☒ No
American Ginseng	☐ Yes ☒ No	☐ Yes ☒ No
Black-footed Ferret	☒ Yes ☐ No	☐ Yes ☒ No
Blacknose Shiner	☐ Yes ☒ No	☐ Yes ☒ No
Blowout Penstemon	☐ Yes ☒ No	☐ Yes ☒ No
Colorado Butterfly Plant	☐ Yes ☒ No	☐ Yes ☒ No
Eastern Black Rail	☒ Yes ☐ No	☐ Yes ☒ No
Eskimo Curlew	☒ Yes ☐ No	☐ Yes ☒ No
Finescale Dace	☐ Yes ☒ No	☐ Yes ☒ No
Gray Wolf	☒ Yes ☐ No	☐ Yes ☒ No
Interior Least Tern[3]	☒ Yes ☐ No	☒ Yes ☐ No
Lake Sturgeon	☐ Yes ☒ No	☐ Yes ☒ No
Mountain Plover	☐ Yes ☒ No	☐ Yes ☒ No
Northern Long-Eared Bat	☒ Yes ☐ No	☐ Yes ☒ No
Northern Redbelly Dace	☐ Yes ☒ No	☐ Yes ☒ No
Pallid Sturgeon[2]	☐ Yes ☒ No	☐ Yes ☒ No
Piping Plover[2]	☒ Yes ☐ No	☒ Yes ☐ No
Rufa Red Knot	☒ Yes ☐ No	☐ Yes ☒ No
Salt Creek Tiger Beetle	☐ Yes ☒ No	☐ Yes ☒ No
Salt Creek Tiger Beetle Critical Habitat	☐ Yes ☒ No	NA
Saltwort	☐ Yes ☒ No	☐ Yes ☒ No
Scaleshell Mussel	☐ Yes ☒ No	☐ Yes ☒ No
Small White Lady's Slipper	☐ Yes ☒ No	☐ Yes ☒ No
Southern Flying Squirrel	☐ Yes ☒ No	☐ Yes ☒ No
Sturgeon Chub	☐ Yes ☒ No	☐ Yes ☒ No
Swift Fox	☐ Yes ☒ No	☐ Yes ☒ No
Thick-Billed Longspur	☐ Yes ☒ No	☐ Yes ☒ No

Timber Rattlesnake	☐ Yes ☒ No	☐ Yes ☒ No
Topeka Shiner	☐ Yes ☒ No	☐ Yes ☒ No
Topeka Shiner Critical Habitat	☐ Yes ☒ No	NA
Ute Ladies'-tresses	☐ Yes ☒ No	☐ Yes ☒ No
Western Massasauga	☐ Yes ☒ No	☐ Yes ☒ No
Western Prairie Fringed Orchid	☐ Yes ☒ No	☐ Yes ☒ No
Whooping Crane[3]	☐ Yes ☒ No	☐ Yes ☒ No
Whooping Crane Critical Habitat	☐ Yes ☒ No	NA

[1] **Species ranges can be found at:** https://cert.outdoornebraska.gov/content/map AND/OR http://outdoornebraska.gov/naturalheritageprogram/#rangemaps **AND** https://ecos.fws.gov/ipac/.

[2] American Burying Beetle (ABB) species range differs between USFWS and NGPC. Both species ranges will be reviewed, and the range question marked "yes" if action area is within either USFWS or NGPC species range for ABB.

[3] This species is a Platte River Recovery Implementation Program Target Species for enhancing, restoring, and protecting habitat.

If the species is not identified in either column, then there is a "no effect" to the species from action. If any "yes" boxes are checked, carry these species to Step 2.

Does the Project Action Area occur directly adjacent to or on Federal or Tribal land?*
☐ Yes ☒ No

***Federal and Tribal lands can be found at:** https://apps.nationalmap.gov/viewer/ and http://news.legislature.ne.gov/lrd/files/2015/12/lrd_mow_2.pdf

If yes, the project Biological Evaluation documentation will be provided to the tribe and Bureau of Indian Affairs (BIA), or the Federal land managing agency regardless of the effect determination. This documentation will be provided concurrently with the resource agency submittals in May Affect situations. If a tribe, BIA, or Federal land managing agency does not concur with the effect determination or conservation conditions, then a consultation with all parties, including the resource agencies, shall occur.

Has a survey, Natural Heritage Database, or other source identified an occurrence within 1.0 mile of the Project Action Area, within the last 30 years?

☐ Yes ☒ No

If yes, indirect effects of the activity will be analyzed below. Indirect effects may include but are not limited to hydrologic changes (ditching, diking, etc.). If any indirect effects are identified that are not captured elsewhere in the Matrix, then May Affect. (NDOT Environmental).

Indirect Effects Analysis
N/A

Will the project impact animal movements, such as by adding traffic capacity within occupied habitats, or will the project provide an opportunity to improve known existing habitat fragmentation conditions?

☒ Yes ☐ No

If yes, the effects will be analyzed below.

Habitat Connectivity Analysis
The animal-related crash rate along this portion of US-275 (17 percent) is far below the statewide average for animal-related crashes on two-lane state highways in Nebraska (56 percent). That may mean that wildlife are already successfully using structures to cross under US-275, that wildlife are not frequently crossing US-275 in the Study Area, that drivers are able to avoid those animals that cross the road, or that there is sufficient habitat on either side of US-275 so that wildlife does not need to cross the road. Additional traffic lanes and increased traffic speeds would inherently diminish habitat connectivity along the entire Project, but with wildlife-vehicle crash rates substantially lower than the state average and bridges or culverts at three of the four wildlife corridor locations, the overall impact on wildlife would be minimal.

STEP 2: HABITAT EVALUATION

For each species checked above, complete the Yes/No questions to assist in scoping for the potential affects to the listed species. All the questions associated with a species need to be evaluated individually to determine Yes/No applicability (see below).

If ALL answers are "No" for the species or critical habitat below, then there is a "No Effect" to that particular species or critical habitat.

If ANY answer is "Yes" on this Habitat Evaluation worksheet, then carry the "Yes" species forward and proceed to the Step 3 – Federal or State Species Matrix for further effects guidance.

In rare situations, Unique Circumstances are present that justify a question be answered "No" where it would normally be checked "Yes." In these situations, check the "Unique Circumstances" box by the species name and provide detailed reasoning for this conclusion in the box at the end of Step 2.

SPECIES			
American Burying Beetle			
	*Note to practitioner: The ABB is not included in the Matrix Process. Utilize the species-specific ABB programmatic agreement in development, or in the interim, utilize IPLE's or the formal consultation process (see interim implementation guidance in PA appendix).		
American Ginseng		Unique Circumstances ☐	
	Check which question applies:		
	☐ Based on a desktop survey, does the action area include mature deciduous forest along a river bluff?	Yes ☐	No ☐
	☐ Based on a field visit, does the action area include mature deciduous forest along a river bluff? (*include field visit information in the opening section of this form*)	Yes ☐	No ☐
Black-footed Ferret		Unique Circumstances ☐	
	Does the action area include, in whole or in part, a prairie dog town or complex which is 1,000 acres or more in size? A complex consists of two or more neighboring prairie dog towns with the spacing between the adjacent neighboring town being less than 4.0 miles.	Yes ☐	No ☒
Blacknose Shiner		Unique Circumstances ☐	
	Does the action area include a stream, connected backwater areas, and/or topographic floodplain?*	Yes ☐	No ☐
Blowout Penstemon		Unique Circumstances ☐	
	Check which question applies:		
	☐ Based on a desktop survey, does the action area include open areas of bare sand?	Yes ☐	No ☐
	☐ Based on a field visit, does the action area include open areas of bare sand? (*include field visit information in the opening section of this form*)	Yes ☐	No ☐

Colorado Butterfly Plant	Unique Circumstances ☐		
	Check which question applies:		
	☐ Based on a desktop survey, does the action area include pasture, grassland, or hay land on floodplain and lower stream terraces along Lodgepole Creek?	Yes ☐	No ☐
	☐ Based on a field visit, does the action area include pasture, grassland, or hay land on floodplain and lower stream terraces along Lodgepole Creek? (*include field visit information in the opening section of this form*)	Yes ☐	No ☐
Eastern Black Rail	Unique Circumstances ☐		
	Does the action area contain dense or thick emergent vegetation with high vegetation density (interspersion) within 0.5 mile of the Harvard WPA as well as a mixture of new and residual growth?	Yes ☐	No ☒
Eskimo Curlew	Unique Circumstances ☐		
	Does the action area contain wet meadows, burned over prairies, or newly plowed fields?	Yes ☒	No ☐
Finescale Dace	Unique Circumstances ☐		
	Does the action area include a stream, connected backwater areas, and/or topographic floodplain?*	Yes ☐	No ☐
Gray Wolf	Unique Circumstances ☐		
	Does the Heritage Database indicate known species occurrences within 5 miles of the in the last 30 years?	Yes ☐	No ☒
Interior Least Tern	Unique Circumstances ☐		
	Does the action area include un-vegetated or sparsely vegetated sand, shale, or gravel such as a beach, peninsula, or bar?	Yes ☐	No ☒
	Is the action area (noise and sight) within suitable habitat to include but not limited to a beach area, sand pits, peninsula, sand, shale, or gravel bar?	Yes ☐	No ☒
Lake Sturgeon	Unique Circumstances ☐		
	Is the action area within a large river system (i.e mainstem Missouri River, lower Platte, Elkhorn, or Niobrara rivers, or lower reach of their tributaries*)? *refer to the USFWS/NGPC construction timeframes for specific river reaches	Yes ☐	No ☐
Mountain Plover	Unique Circumstances ☐		
	Does the action area contain heavily grazed/disturbed short grass prairies or areas with very little cover such as tilled cropland on gently rolling to level topography?	Yes ☐	No ☐

Northern Long-Eared Bat			
	*Note to Practitioner: The NLEB is not included in the Matrix Process. Utilize the FHWA/USFWS Range-wide Programmatic Agreement and IPaC for NLEB review (see Nebraska Implementation Guidance Document for Northern Long-eared Bat appendix).		
Northern Redbelly Dace		Unique Circumstances ☐	
		Yes	No
	Does the action area include a stream, connected backwater areas, and/or topographic floodplain?*	☐	☐
Pallid Sturgeon		Unique Circumstances ☐	
		Yes	No
	Is the action area within a large river system (i.e mainstem Missouri River, lower Platte, Elkhorn, or Niobrara rivers, or lower reach of their tributaries*)? *refer to the USFWS/NGPC construction timeframes for specific river reaches	☐	☐
Piping Plover		Unique Circumstances ☐	
		Yes	No
	Does the action area include un-vegetated or sparsely vegetated sand, shale, or gravel such as a beach, peninsula, or bar?	☐	☒
		Yes	No
	is the action area (noise and sight) within suitable habitat to include but not limited to a beach area, sand pits, peninsula, sand, shale, or gravel bar?	☐	☒
***Rufa* Red Knot**		Unique Circumstances ☐	
		Yes	No
	Does the action area contain open mud flats and/or mud and sandy shorelines free of vegetation?	☐	☒
Salt Creek Tiger Beetle		Unique Circumstances ☐	
		Yes	No
	Are saline wetlands and/or salt flats present within action area?	☐	☐
Salt Creek Tiger Beetle (Critical Habitat)		Unique Circumstances ☐	
		Yes	No
	Does the action area include exposed mudflats associated with saline wetlands, or exposed banks and islands of streams and seeps that contain adequate soil moisture and soil salinity, and adjacent vegetated wetlands within the Little Salt, Rock, Oak or Haines Branch Creeks?	☐	☐
Saltwort		Unique Circumstances ☐	
		Yes	No
	Are saline wetlands, salt flats, or saline soils present within the action area?	☐	☐
Scaleshell Mussel		Unique Circumstances ☐	
		Yes	No
	Is the action area within the topographic floodplain of the Missouri Recreational River segment below Gavin's Point dam and the associated lower portion of tributaries in this area?	☐	☐

Small White Lady's Slipper	Unique Circumstances ☐		
	Check which question applies:		
	☐ Based on a desktop survey, does the action area include an undisturbed native, sub-irrigated wet meadow or wet ditches adjacent to undisturbed wet meadows?	Yes ☐	No ☐
	☐ Based on a field visit, does the action area include an undisturbed native, sub-irrigated wet meadow or wet ditches adjacent to undisturbed wet meadows? (*include field visit information in the opening section of this form*)	Yes ☐	No ☐
Southern Flying Squirrel	Unique Circumstances ☐		
	Is the action area within or adjacent to a mature deciduous woodland with mast producing trees including walnut, hickory, or oak component?	Yes ☐	No ☐
Sturgeon Chub	Unique Circumstances ☐		
	Is the action area within a large river system (i.e mainstem Missouri River, lower Platte, Elkhorn, or Niobrara rivers, or lower reach of their tributaries*)? *refer to the USFWS/NGPC construction timeframes for specific river reaches	Yes ☐	No ☐
Swift Fox	Unique Circumstances ☐		
	Does the action area include connected suitable habitat that contains vegetation <6 inches in height, including gently rolling to level intact upland grasslands and field borders that are outside of densely populated residential, commercial, industrial areas?	Yes ☐	No ☐
Thick-Billed Longspur	Unique Circumstances ☐		
	Does the action area include heavily grazed/disturbed short grass prairie, prairie dog towns, or areas with very little cover, such as tilled cropland on gently rolling to level topography?	Yes ☐	No ☐
Timber Rattlesnake	Unique Circumstances ☐		
	Check which question applies:		
	☐ Based on a desktop survey, does the action area include mature forest and limestone or sandstone rocky outcrops, or large rubble, down trees, logs or slash piles?	Yes ☐	No ☐
	☐ Based on a field visit, does the action area include mature forest and limestone or sandstone rocky outcrops, or large rubble, down trees, logs or slash piles? (*include field visit information in the opening section of this form*)	Yes ☐	No ☐
	Is the action area within 1.5-miles of a known den or occurrence site, according to records in the Nebraska Natural Heritage Database?	Yes ☐	No ☐
Topeka Shiner	Unique Circumstances ☐		
	Is the action area within a stream, connected backwater areas and/or floodplain?	Yes ☐	No ☐

Topeka Shiner (Critical Habitat)	Unique Circumstances ☐		
	Does action area include intermittent or perennial, small, low order, prairie streams with good clear water quality, relatively cool temperatures, and low fish diversity within the Taylor Creek drainage?	Yes ☐	No ☐
Ute Ladies'-tresses	Unique Circumstances ☐		
	☐ Based on a desktop survey, does the action area include wet meadow on floodplain and lower stream terraces along the Niobrara River?	Yes ☐	No ☐
	☐ Based on a field visit, does the action area include wet meadow on floodplain and lower stream terraces along the Niobrara River? (*include field visit information in the opening section of this form*)	Yes ☐	No ☐
Western Massasauga	Unique Circumstances ☐		
	Check which question applies:		
	☐ Based on a desktop survey, does the action area within a wet site (including, but not limited to wetlands, ditches, and floodplains) characterized by the presence herbaceous wetland vegetation OR an upland grassland habitat adjacent to said wet site?	Yes ☐	No ☐
	☐ Based on a field visit, does the action area include a wet site (including, but not limited to wetlands, ditches, and floodplains) characterized by the presence herbaceous wetland vegetation and crayfish burrows OR an upland grassland habitat adjacent to said wet site? (*include field visit information in the opening section of this form*)	Yes ☐	No ☐
Western Prairie Fringed Orchid	Unique Circumstances ☐		
	☐ Based on a desktop survey, does the action area have no history of cropping and include undisturbed wet mesic prairie and sedge meadows in alluvial soils of river floodplains or sandy soils of subirrigated meadows and prairie swales?	Yes ☐	No ☐
	☐ Based on a field visit, does the action area have no history of cropping and include undisturbed wet mesic prairie and sedge meadows in alluvial soils of river floodplains or sandy soils of subirrigated meadows and prairie swales? (*include field visit information in the opening section of this form*)	Yes ☐	No ☐
Whooping Crane	Unique Circumstances ☐		
	Is the action area: • outside of densely populated residential, commercial, or industrial areas and… • does it include suitable habitat, such as sub-irrigated grasslands, meadows, shallow wetland habitat, farm ponds, or major rivers?	Yes ☐	No ☐
Whooping Crane (Critical Habitat)	Unique Circumstances ☐		
	Does the action area include wide, open river channel with shallow sand and gravel bars with nearby bottomland areas, including wet meadows, that are isolated and provide protection from disturbance within the 56-mile-long by 3-mile-wide reach of the Platte River from the Lexington, Nebraska bridge to near Denman, Nebraska?	Yes ☐	No ☐

*The topographic floodplain for this project is identified on the attached map.

Describe Unique Circumstances here, if applicable: **NA**

Federal Species Matrix

Sources of Impacts	Within Project	Eskimo Curlew
Asphalt Patching	X	NE
Bridge Substructure New, Replacement, or Repair - Intermittent	X	NE
Bridge Substructure New, Replacement, or Repair - Perennial	X	NE
Bridge Superstructure New, Replacement, or Repair - Intermittent	X	NE
Bridge Superstructure New, Replacement, or Repair - Perennial	X	NE
Clearing and Grubbing - Non-woody Vegetation	X	NE
Clearing and Grubbing - Trees & Shrubs	X	NE
Culvert New, Replacement, Extension, Repair - Ephemeral	X	NE
Culvert New, Replacement, Extension, Repair - Intermittent	X	NE
Culvert New, Replacement, Extension, Repair - Perennial	X	NE
Curb & Gutter	X	NE
Earth Shoulder Construction	X	NE
Erosion Control - Barriers	X	NE
Erosion Control - Erosion Checks	X	NE
Erosion Control - Inlet/Outlet Protection	X	NE
Erosion Control - Mulching	X	NE
Erosion Control - Rolled Erosion Control	X	NE
Erosion Control - Slope Interuption	X	NE
Erosion Control - Traps and Basins	X	NE
Erosion Control - Vegetation	X	NE
Fencing	X	NE
Grading Within the Hinge Point	X	NE
Grading Outside the Hinge Point	X	NE
Guardrail Repair, Replacement, or Installation with Soil Disturbance	X	NE
Lighting, Traffic and Pedestrian Signals, Dynamic Message Signs w/ soil disturbance	X	NE
Milling and/or In-place Recycling	X	NE
Pavement Removal	X	NE
Paving	X	NE
Piers	X	NE
Pile Driving - Impact	X	NE
Pile Driving - Vibratory	X	NE
Pipe Jacking & Casing	X	NE
Removal of Structures and Obstructions	X	NE
Replacing a Bridge with a Culvert	X	NE
Resurfacing-Fog/Slurry Seal, Armor Coat/Chip Seal	X	NE
Rock or Gravel Surfacing	X	NE
Shoo-fly	X	NE
Signs with Soil Disturbance	X	NE
Stream Channel Impact, Ephemeral	X	NE
Stream Channel Impact, Intermittent	X	NE
Stream Channel Impact, Perennial	X	NE
Temporary Crossing, Causeway, Work Platform	X	NE
Underground Utility Conduit Installation	X	NE
Wetland Mitigation	X	NE

Individual Project Level Evaluation

Project Name: US-275 Norfolk – Wisner
Federal-aid number: S-275-6(1052)
Control Number: 32319

This Individual Project Level Evaluation, in association with the completed Habitat Evaluation Form, the Matrix and associated conservation conditions, the Overview of Effects and Required Conservation Conditions sheet, and the associated appendices constitutes the complete Biological Assessment documentation for the above-referenced Project.

The State has determined that this Project has no significant impact(s) on the environment and that there are no unusual circumstances as described in 23 CFR 771.117(b). As such, the Project is categorically excluded from the requirements to prepare an environmental assessment or environmental impact statement under the NEPA. The State has been assigned, and hereby certifies that it has carried out, the responsibility to make this determination pursuant to 23 U.S.C. §326 and the First Renewed Memorandum of Understanding dated September 17, 2021, and executed between FHWA and the State.

1. SPECIES TO BE EVALUATED INDIVIDUALLY

Note, these are the species to be evaluated in-depth, separate from the evaluation completed for the remaining state and federally listed species documented through the Habitat Assessment form and Matrix.

Common Name	Scientific Name	Status
Northern Long-Eared Bat	*Myotis septentrionalis*	FE, SE

2. SPECIES EVALUATION

NORTHERN LONG-EARED BAT (*Myotis septentrionalis*)

Life History Information

Northern long eared-bats (NLEB) (*Myotis septentrionalis*) were recognized as a distinct species in 1979 apart from Keen's long-eared myotis (*Myotis keenii)* (Fitch and Schump 1979). Adult NLEB weighs five to eight grams on average, with a body length ranging from 77 to 95 millimeters and a wingspan ranging from 228 to 258 millimeters (Barbour and Davis 1969; Caceres and Pybus 1997). Their fur coloration ranges from medium to dark brown on their back, dark brown ears and wing membranes, and tawny to pale-brown ventral sides (Nagorsen and Brigham 1993; Whitaker and Mumford 2009). NLEB have relatively long ears compared to other *Mytosis* species.

NLEB's range spans most of the eastern and north-central U.S. and all Canadian provinces (Nagorsen and Brigham 1993, p. 89; Caceres and Pybus 1997). Within Nebraska, the species is estimated to be present in the eastern and northern half of the state. The NLEB annual life cycle consists of hibernation (winter), foraging (spring, summer, fall), roosting (summer), swarming (fall), and migration (spring and fall). NLEB primarily hibernate in hibernacula, including caves and mines. However, when caves and hibernacula are not readily available, the species has been known to utilize abandoned railroad tunnels, the entrance of storm sewers, hydroelectric dam facilities, aqueducts, and dry wells. Within Nebraska, NLEBs hibernate in mining caves and rock crevices associated with Karst areas (White et al. 2020). Short regional migration, up to 55 miles, between winter hibernacula and summer roosts have been reported (Nagorsen and Brigham 1993). During the summer, NLEBs roost singly or in maternity colonies underneath bark, cavities, or crevices in trees and snags (Sasse and Pekins 1996; Foster and Kurta 1999; Owen et al. 2002; Carter and Feldhamer 2005; Perry and Thill 2007; Timpone et al. 2010). Other documented roosting habitats for NLEB include structures such as buildings, barns, utility poles, bridges, and culverts (USFWS 2021). It is theorized that NLEB will utilize human structures more when natural habitat is unavailable (Henderson and Broders 2008).

NLEB are nocturnal foragers with a diverse diet of moths, flies, leafhoppers, caddisflies, and beetles (Griffith and Gates 1985, Nagorsen and Brigham 1993, Brack and Whitaker 2001), with lepidopterans and coleopterans being the most common prey (Brack and

Whitaker 2001). NLEB prefers to forage in the understory of canopies on forested hillsides and ridges (Nagorsen and Brigham 1993) rather than forested riparian areas (LaVal et al. 1977). Highly fragmented habitats or areas that have been cleared of trees are not preferred by NLEB (USFWS 2015).

Survey History (if applicable)

On 5/31/2023, NDOT Environmental Specialist III Matthew Greiner surveyed bridge structures (S275 09309 and S275 10009) in proximity to suitable habitat for use by bats of any species. No suspected bat use or presence was identified and surveys were documented on the Bridge/Structure Bat Assessment Form provided in the FHWA/USFWS Range-wide Programmatic Agreement for Northern Long-Eared Bat and Indiana Bat.

Habitat Evaluation and Suitability

The Project spans along US Highway 275 (US-275) through an agriculturally dominated landscape from the Nebraska Highway 57 (N-57) / US-275 intersection to the village of Wisner 16 miles east. Woodland areas are largely confined to riparian corridors along major waterways including Payne Creek, Humbug Creek, a tributary of Sand Creek, and the Elkhorn River. Other isolated stands of trees associated with smaller drainages, farmsteads, and windbreaks / fence rows are present along the Project alignment.

The Elkhorn River, Humbug Creek, and a tributary to Sand Creek provide suitable habitat for NLEB for summer roosting, foraging, and pup rearing. NLEB and other bat species could utilize the waterway forested corridors. No known hibernacula or roosts exist within the action area. The nearest natural heritage records of NLEB are located approximately 42 miles Northeast of the project alignment near the village of Ponca, NE on the Missouri River.

Analysis and Determination of Effects

The Project may result in permanent and temporary impact to NLEB habitat resulting from the removal/replacement of bridge and culvert structures and the removal of suitable roosting trees to expand the roadway. NDOT initially assessed impacts on NLEB through the *FHWA, FRA, FTA Programmatic Consultation for Transportation Projects affecting NLEB or Indiana Bat* determination key in IPaC (Information for Planning and Consultation). A “may affect, likely to adversely affect” determination for NLEB was reached due to the removal of suitable summer habitat (trees) between 100 – 300 feet from the roadway in suitable but undocumented habitat. Through the review of preliminary design documentation, it was determined that approximately 0.5 acres of trees are anticipated to be removed 0-100 ft from existing roadways, and approximately 0.6 acres of trees are anticipated to be removed from 100-300 ft from existing roadways in suitable habitat. Furthermore, NDOT has determined that tree removal will occur during the inactive season for NLEB (November 1st-March 31st). All tree removal will occur greater than 0.5 miles from any known hibernaculum or roost for NLEB.

No indirect effects on NLEB or their habitat are expected to occur as a result of this Project due to the adjacent habitat being marginal, dominated by row crop agriculture, and the project having a minor scope of habitat impact. No reasonably foreseeable future actions associated with the highway expressway are anticipated that would affect northern long-eared bats. Any future highway maintenance/replacement actions would be evaluated utilizing current NDOT T&E procedures with associated agency coordination and construction commitments. Therefore, this Project is not anticipated to have indirect or cumulative impacts on NLEB or its habitat.

Determination

Based upon coordination described below (**Section 4**) and NDOT's commitment to implement avoidance and minimization measures appropriate for NLEB on the Project from the FHWA Programmatic Biological Opinion for Transportation Projects within the Range of NLEB, NDOT has determined that this Project **"may affect, but is not likely to adversely affect"** NLEB or its habitat based on the commitment to conduct tree clearing/grubbing during the inactive season.

3. CONSERVATION MEASURES (if applicable)

Northern Long-Eared Bat

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures.

TREE REMOVAL AMM 1

Modify all phases/aspects of the Project (e.g., temporary work areas, alignments) to avoid tree removal in excess of what is required to implement the project safely.

TREE REMOVAL AMM 2

Apply time of year (TOY) restrictions for tree removal (when bats are not likely to be present (November 1- March 31)), or Limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of the existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in Project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season (April 1-October 31).

LIGHTING AMM 2
When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

4. COORDINATION

NDOT Environmental Specialist III Mitch Renteria coordinated with Jessi Tapp on 6/13/2023 (NGPC) and Amanda Ciurej on 6/20/2023 (USFWS) regarding this Project. The details of the Project and scope of tree removal were discussed regarding IPAC determining the Project was "likely to adversely affect" NLEB. During discussions, it was determined that both agencies were comfortable with NDOT submitting an IPLE with the Biological Assessment for NLEB to further discuss effects to the species and to provide NDOT's justification of the altered effects determination. USFWS and NGPC agreed that a "may affect, not likely to adversely affect" determination would be appropriate with the correct avoidance and minimization measures implemented such as restricting tree clearing to the inactive season for NLEB. Additional avoidance and minimization measures were taken directly from the FHWA, FRA, FTA Programmatic Consultation for Transportation Projects affecting NLEB or Indiana Bat as appropriate for this Project.

5. LITERATURE CITED

Barbour, R.W., and W.H. Davis. 1969. Bats of America. The University of Kentucky Press, Lexington, Kentucky.

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6. ADDITIONAL INFORMATION

Project related documents including field notes, photographs, surveys, etc., are located in the consultant Project file and at the Nebraska Department of Transportation Environmental Services Office.

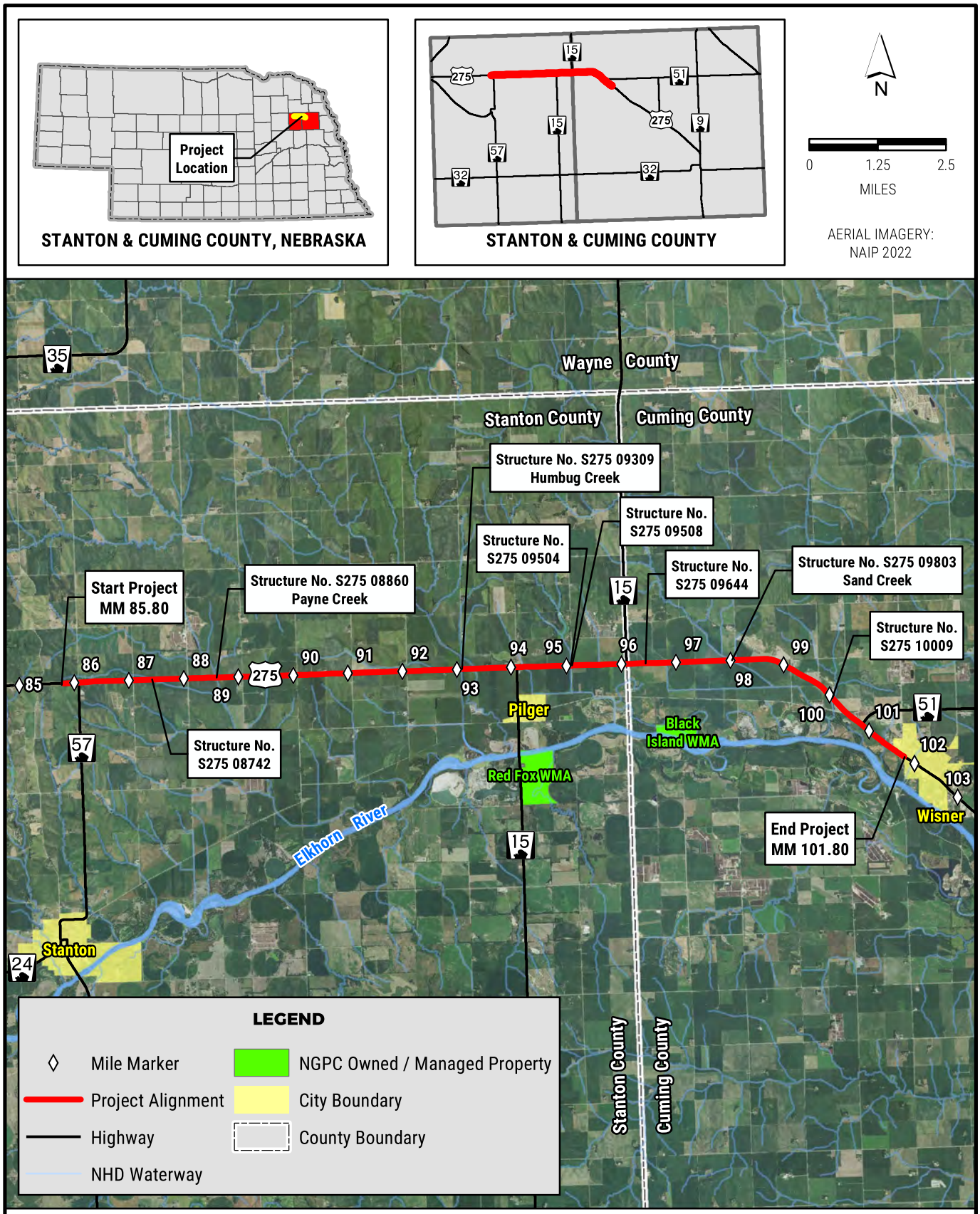


NEBRASKA
DEPARTMENT OF TRANSPORTATION

SITE LOCATION
WISNER WETLAND MITIGATION SITE
CONTROL NO: 32319
PROJECT NO: S-275-6(1052)

FIGURE 1

PATH: Z:\PROJECTS\NDOT\10305768_NDOT_NORFOLK_WISNERMITIGATDES\MAP_DOCS\DRAFT\MITIGATION_CONCEPT_MEMO\PROJECT&SITE_LOCATION\PROJECT&SITE_LOCATION.APRX - USER: CMODRCIN - DATE: 6/14/2023



NEBRASKA
DEPARTMENT OF TRANSPORTATION

PROJECT LOCATION

US-275 NORFOLK - WISNER
PN S-275-6(1052)
CN 32319

FIGURE 1

PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_24_T&E_SPECIES\FIG1_PL_THREATENED_ENDANGERED_BE.MXD - USER: EMSCHMIT - DATE: 12/15/2022

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Nebraska Ecological Services Field Office
9325 B South Alda Rd., Ste B
Wood River, NE 68883-9565
Phone: (308) 382-6468 Fax: (308) 384-8835

In Reply Refer To: June 15, 2023
Project code: 2023-0094164
Project Name: US-275 Norfolk-Wisner: PN S-275-6(1052); CN 32319

Subject: Consistency letter for the 'US-275 Norfolk-Wisner: PN S-275-6(1052); CN 32319' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated June 15, 2023 to verify that the **US-275 Norfolk-Wisner: PN S-275-6(1052); CN 32319** (Proposed Action) may rely on the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, and is likely to adversely affect the endangered Indiana bat (*Myotis sodalis*) and/or the endangered northern long-eared bat (*Myotis septentrionalis*). Consultation with the Service pursuant to section 7(a)(2) of the ESA (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required.

This "may affect - likely to adversely affect" determination becomes effective when the lead Federal action agency or designated non-federal representative requests the Service rely on the PBO to satisfy the agency's consultation requirements for this project. Please provide this consistency letter to the lead Federal action agency or its designated non-federal representative for review, and as the agency deems appropriate, transmit to this Service Office for verification that the project is consistent with the PBO.

This Service Office will respond by letter to the requesting Federal action agency or designated non-federal representative within 30 calendar days after receiving request for verification to:

- verify that the Proposed Action is consistent with the scope of actions covered under the PBO;
- verify that all applicable avoidance, minimization, and compensation measures are included in the action proposal;
- identify any action-specific monitoring and reporting requirements, consistent with the monitoring and reporting requirements of the PBO, and
- identify anticipated incidental take.

ESA Section 7 compliance for this Proposed Action is not complete until the Federal action agency or its designated non-federal representative receives a verification letter from the Service.

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or Northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA Section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities: If your initial bridge/culvert or structure assessments failed to detect Indiana bats, but you later detect bats prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action may affect any other federally-listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency accordingly.

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Candidate
- Pallid Sturgeon *Scaphirhynchus albus* Endangered
- Piping Plover *Charadrius melodus* Threatened

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

US-275 Norfolk-Wisner: PN S-275-6(1052); CN 32319

DESCRIPTION

This project is 16.0 miles in length and is located on U.S. Highway 275 (US-275) in Stanton and Cuming Counties, starting 0.30 mile west of the junction of US-275 and Nebraska Highway 57 (N-57) and extending east to 0.25 mile southeast of the west corporate boundary of Wisner. Construction may begin and/or end approximately 500 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement.
The existing roadway on this segment of US-275 generally consists of two 12-foot-wide asphalt overlaid concrete lanes and 10-foot-wide shoulders, of which 8 feet are paved with asphalt.

The improvements on this project consist of expanding the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway on one side of the existing US-275 (called “2+2 Construction” by NDOT). In addition to mainline US-275 construction, the Project would improve US-275 tie-ins to Nebraska Highway 15 (N-15) at two locations and Nebraska Highway 51 (N-51) northwest of Wisner, along with various county roads. Additional work would consist of concrete repairs, culvert work, trench widening, removing and replacing pavement, bridge repairs, bridge replacement, lighting, and signing & striping. Grading would be required for the entire length of this project.

There are eight existing bridge sized structures located along the project. These include: a tributary of Payne Creek (Structure Number S275 08742), Payne Creek (Structure Number S275 08860), Humbug Creek (Structure Number S275 09309), three tributaries of the Elkhorn River (Structure Numbers S275 09504, S275 09508, S275 10009), a tributary of Sand Creek (Structure Number S275 09644), Sand Creek (Structure Number S275 09803). The structures would be extended, replaced, or used in place as determined at the Plan-In-Hand. A grade raise of the entire structure is anticipated for S075 08742 and S275 08860. Several new bridge size structures would be constructed with the project. These structures would have work in the waterway. New bridge sized structures requiring a grade raise would be constructed at the following locations: MM 92.79, 93.08, 96.09, and 96.83. New bridge sized structures not requiring a grade raise would be constructed at the following locations: MM 93.30, 94.23, 95.61, and 101.02. All of the listed bridge sized structures would require work in the waterway. The limits of pavement replacement would be determined by Roadway Design. Guardrail would be replaced.

This project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Some county roads would not be constructed under traffic. Traffic would be detoured utilizing adjacent county roads. Work would not be required on those routes. Additional property rights would be required to build this project. Access to adjacent properties would be maintained during construction but may be limited at times due to phasing requirements. Details would be determined at the construction meeting.

DETERMINATION KEY RESULT

Based on your answers provided, this project is likely to adversely affect the endangered Indiana bat and/or the endangered northern long-eared bat. Therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the conclusion and Incidental Take Statement provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

QUALIFICATION INTERVIEW

1. Is the project within the range of the Indiana bat[1]?

   [1] See Indiana bat species profile

   Automatically answered
   No

2. Is the project within the range of the northern long-eared bat[1]?

   [1] See northern long-eared bat species profile

   Automatically answered
   Yes

3. Which Federal Agency is the lead for the action?

   A) Federal Highway Administration (FHWA)

4. Are *all* project activities limited to non-construction[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

   [1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

   No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces[1]?

   [1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

   No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum[1]?

   [1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

   No

7. Is the project located **within** a karst area?

   No

8. Is there *any* suitable[1] summer habitat for Indiana Bat or NLEB **within** the project action area[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

   [1] See the Service's summer survey guidance for our current definitions of suitable habitat.

   [2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat.

   Yes

9. Will the project remove *any* suitable summer habitat[1] and/or remove/trim any existing trees **within** suitable summer habitat?

   [1] See the Service's summer survey guidance for our current definitions of suitable habitat.

   Yes

10. Will the project clear more than 20 acres of suitable habitat per 5-mile section of road/rail?

    No

11. Have presence/probable absence (P/A) summer surveys[1][2] been conducted[3][4] **within** the suitable habitat located within your project action area?

    [1] See the Service's summer survey guidance for our current definitions of suitable habitat.

    [2] Presence/probable absence summer surveys conducted within the fall swarming/spring emergence home range of a documented Indiana bat hibernaculum (contact local Service Field Office for appropriate distance from hibernacula) that result in a negative finding requires additional consultation with the local Service Field Office to determine if clearing of forested habitat is appropriate and/or if seasonal clearing restrictions are needed to avoid and minimize potential adverse effects on fall swarming and spring emerging Indiana bats.

    [3] For projects within the range of either the Indiana bat or NLEB in which suitable habitat is present, and no bat surveys have been conducted, the transportation agency will assume presence of the appropriate species. This assumption of presence should be based upon the presence of suitable habitat and the capability of bats to occupy it because of their mobility.

    [4] Negative presence/probable absence survey results obtained using the summer survey guidance are valid for a minimum of two years from the completion of the survey unless new information (e.g., other nearby surveys) suggest otherwise.

    No

12. Does the project include activities **within documented NLEB habitat**[1][2]?

    [1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

    [2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

    No

13. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors?

    Yes

14. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors occur?

    B) During the inactive season

15. Will *any* tree trimming or removal occur **within** 100 feet of existing road/rail surfaces?

    Yes

16. Will *any* tree trimming or removal occur **between** 100-300 feet of existing road/rail surfaces?

    Yes

17. Are *all* trees that are being removed clearly demarcated?

    Yes

18. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?

    No

19. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

    Yes

20. Does the project include slash pile burning?

    No

21. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

    Yes

22. Is there *any* suitable habitat[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

    [1] See the Service's current summer survey guidance for our current definitions of suitable habitat.

    Yes

23. Has a bridge assessment[1] been conducted **within** the last 24 months[2] to determine if the bridge is being used by bats?

    [1] See User Guide Appendix D for bridge/structure assessment guidance

    [2] Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Consultation, regardless of whether assessments have been conducted in the past. Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that bridge/structure in subsequent years.

    Yes

    SUBMITTED DOCUMENTS

    - *32319 NLEB_Survey_Reports.pdf https://ipac.ecosphere.fws.gov/project/Q6NDHB7OMFCTFFIF34A6T5JNNE/projectDocuments/127162031*

24. Did the bridge assessment detect *any* signs of Indiana bats and/or NLEBs roosting in/under the bridge (bats, guano, etc.)[1]?

    [1] If bridge assessment detects signs of *any* species of bats, coordination with the local FWS office is needed to identify potential threatened or endangered bat species. Additional studies may be undertaken to try to identify which bat species may be utilizing the bridge prior to allowing *any* work to proceed.

    Note: There is a small chance bridge assessments for bat occupancy do not detect bats. Should a small number of bats be observed roosting on a bridge just prior to or during construction, such that take is likely to occur or does occur in the form of harassment, injury or death, the PBO requires the action agency to report the take. Report all unanticipated take within 2 working days of the incident to the USFWS. Construction activities may continue without delay provided the take is reported to the USFWS and is limited to 5 bats per project.

    No

25. Will the bridge removal, replacement, and/or maintenance activities include installing new or replacing existing **permanent** lighting?

    No

26. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

    Yes

27. Is there *any* suitable habitat[1] for Indiana bat or NLEB **within** 1,000 feet of the structure? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

    [1] See the Service's current summer survey guidance for our current definitions of suitable habitat.

    No

28. Will the project involve the use of **temporary** lighting *during* the active season?

    Yes

29. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?

    Yes

30. Will the project install new or replace existing **permanent** lighting?

    Yes

31. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **permanent** lighting will be installed or replaced?

    Yes

32. Does the project include percussives or other activities (**not including tree removal/ trimming or bridge/structure work**) that will increase noise levels above existing traffic/ background levels?

    Yes

33. Will the activities that use percussives (**not including tree removal/trimming or bridge/ structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season[1]?

    [1] Coordinate with the local Service Field Office for appropriate dates.

    Yes

34. Will *any* activities that use percussives (**not including tree removal/trimming or bridge/ structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the inactive season[1]?

    [1] Coordinate with the local Service Field Office for appropriate dates.

    Yes

35. Are *all* project activities that are **not associated with** habitat removal, tree removal/ trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

    Examples: lining roadways, unlighted signage , rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

    Yes

36. Will the project raise the road profile **above the tree canopy**?

    No

37. Are the wetland or stream protection activities associated with compensatory wetland/ stream mitigation portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because your activities associated with compensatory wetland/stream mitigation activities do not clear suitable summer habitat and are not within 0.5 miles of Indiana bat or NLEB hibernaculum.

38. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the active season within undocumented habitat.

39. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) and/or increase noise levels above existing traffic/background levels consistent with a No Effect determination in this key?

    Automatically answered
    Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the inactive season

40. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because the tree removal/trimming that occurs outside of the NLEB's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

41. Is the habitat removal portion of this project consistent with a Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because the tree removal that occurs outside the NLEB's active season is 100-300 feet from the existing road/rail surface, and is not in documented roosting/foraging habitat or travel corridors.

42. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

    Automatically answered
    Yes, because the bridge has been assessed using the criteria documented in the BA and no signs of bats were detected

43. Is the structure removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

    Automatically answered
    Yes, because the structure is more than 1,000 feet from the nearest suitable habitat and is therefore considered unsuitable for use by bats

44. **General AMM 1**
Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

Yes

45. **Tree Removal AMM 1**
Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal[1] in excess of what is required to implement the project safely?

Note: Tree Removal AMM 1 is a minimization measure, the full implementation of which may not always be practicable. Projects may still be NLAA as long as Tree Removal AMMs 2, 3, and 4 are implemented and LAA as long as Tree Removal AMMs 3, 5, 6, and 7 are implemented.

[1] The word “trees” as used in the AMMs refers to trees that are suitable habitat for each species within their range. See the USFWS’ current summer survey guidance for our latest definitions of suitable habitat.

Yes

46. **Tree Removal AMM 3**
Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

47. **Lighting AMM 1**
Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

Yes

48. **Lighting AMM 2**
Does the lead agency use the BUG (Backlight, Uplight, and Glare) system developed by the Illuminating Engineering Society[1] to rate the amount of light emitted in unwanted directions?

[1] Refer to The BUG System—A New Way To Control Stray Light

Yes

49. **Lighting AMM 2**
Will the **permanent** lighting be designed to be as close to 0 for all three BUG ratings as possible, with a priority of "uplight" of 0 and "backlight" as low as practicable?

Yes

50. For Indiana bat, if applicable, compensatory mitigation measures are required to offset adverse effects on the species (see Section 2.10 of the BA). Please select the mechanism in which compensatory mitigation will be implemented:

6. Not Applicable

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

   Yes

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

   N/A

3. How many acres[1] of trees are proposed for removal between 0-100 feet of the existing road/rail surface?

   [1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   .5

4. How many acres[1] of trees are proposed for removal between 100-300 feet of the existing road/rail surface?

   [1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   .6

5. **Please verify:**
   All tree removal will occur greater than 0.5 mile from any hibernaculum.

   Yes, I verify that all tree removal will occur greater than 0.5 miles from any hibernaculum.

6. Is the project location 0-100 feet from the edge of existing road/rail surface?

   Yes

7. Is the project location 100-300 feet from the edge of existing road/rail surface?

   Yes

8. **Please verify:**
   No documented NLEB roosts or surrounding summer habitat within 150 feet of documented roosts will be impacted between June 1 and July 31.

   Yes, I verify that no documented NLEB roosts or surrounding summer habitat within 150 feet of documented roosts will be impacted during this period.

9. Please describe the proposed bridge work:

   Structures would be extended, replaced, or used in place as determined at PIH meeting.

10. Please state the timing of all proposed bridge work:

    Active/inactive Seasons

11. Please enter the date of the bridge assessment:

    5/31/2023

12. Please describe the proposed structure work:

    Repair and replacement, as well as construction of new structures would occur.

13. Please state the timing of all proposed structure work:

    Active/inactive Seasons

14. You have indicated that the following Avoidance and Minimization Measures (AMMs) will be implemented as part of the proposed project:
    - *Lighting AMM 2*
    - *Tree Removal AMM 3*
    - *General AMM 1*
    - *Tree Removal AMM 1*
    - *Lighting AMM 1*

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

This determination key result includes the committment to implement the following Avoidance and Minimization Measures (AMMs):

LIGHTING AMM 2

When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

TREE REMOVAL AMM 1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season.

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING NLEB OR INDIANA BAT

This key was last updated in IPaC on April 13, 2023. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the endangered **northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects. The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Nebraska Department of Transportation
Name: Mitchell Renteria
Address: 1500 Nebraska Parkway
City: Lincoln
State: NE
Zip: 68502
Email mitch.renteria@nebraska.gov
Phone: 4024793546

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

[EXTERNAL] US-275 Norfolk-Wisner; CN 32319

Renteria, Mitch <Mitch.Renteria@nebraska.gov>

Tue 6/20/2023 3:40 PM

To:Tapp, Jessica <Jessica.tapp@nebraska.gov>;Stansberry, Brooke <brooke_stansberry@fws.gov>;Ciurej, Amanda K <amanda_ciurej@fws.gov>;dillon.dittmer@dot.gov <dillon.dittmer@dot.gov>

Cc:Hartman, Jeff <jeff.hartman@nebraska.gov>;Greiner, Matthew <Matthew.Greiner@nebraska.gov>

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Hey Amanda, Brooke, Jessi, and Dillon,

As we discussed previously over the phone, I am emailing on behalf of the Federal Highways Administration regarding the aforementioned project to confirm the path forward for Biological Assessment submittal. I am confirming the intent of NDOT/FHWA is to submit the Biological Assessment for US-275 Norfolk-Wisner with an Individual Project Level Evaluation (IPLE) for Northern Long-eared Bat due to the determination by the FHWA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB) that this project “may affect, and is likely to adversely affect” NLEB.
With the commitment by NDOT/FHWA that this project only remove potential summer suitable habitat during the inactive season (November 1- March 31) as well as the commitment to implement numerous other avoidance and minimization measures for NLEB as set forth in the Programmatic Biological Opinion, NDOT/FHWA have determined that this project “may affect, but is not likely to adversely affect” NLEB or its habitat.
Impacts to potential suitable habitat include removal of marginal NLEB summer habitat within 100 feet of the existing roadway, and from 100-300 feet from the existing roadway. Only two locations are anticipated to remove suitable summer habitat; including Humbug Creek and an unnamed field drainage channel located east of Sand Creek. The locations where tree removal would occur are not large wooded areas with dense tree cover, and are characterized by being narrow width tree corridors surrounded by conventional row crop agriculture.

Based upon my discussion over the phone with Jessi Tapp on 6/13/2023 and Amanda Ciurej on 6/20/2023, it was determined that this path forward seemed appropriate given the project scope and habitat removal proposed. This email is solely meant to document this coordination for @dillon.dittmer@dot.gov and the Federal Highways Administration as we move forward toward submittal in the next week or so.

Thank you again for your coordination and assistance working through complex situations!
Have a great day,

Mitch Renteria
Environmental Specialist III
Threatened and Endangered Species
Office: 402-479-3546

NEBRASKA
GAME PARKS

2200 N. 33rd St. • P.O. Box 30370 • Lincoln, NE 68503-0370 • Phone: 402-471-0641

July 21, 2023

Dillon Dittmer
Nebraska Division
Federal Highway Administration
100 Centennial Mall North, Rm 220
Lincoln, NE 68508

Re: US-275 Norfolk-Wisner, S-275-6(1052), CN 32319, FHWA23004, Stanton and Cuming Counties, NE

Dear Mr. Dittmer:

Please reference your correspondence dated June 23, 2013. This letter is in response to your request for concurrence regarding this project's potential impacts to endangered and threatened species in Stanton and Cuming Counties, Nebraska. As we understand it, the project involves expanding the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway on one side of the existing US-275 and other associated activities as outlined in the documents attached to your email. We have completed our review of the proposed project under Neb. Rev. Stat. § 37-807 (3) of the Nongame and Endangered Species Conservation Act (NESCA) and we offer the following comments.

This project is within the range of the federal and state-listed endangered black-footed ferret (*Mustela nigripes),* Eastern black rail (*Laterallus jamaicensis jamaicensis*), eskimo curlew (*Numenius borealis*), grey wolf (*Canis lupus*), Northern long-eared bat (*Myotis septentrionalis)*, the federal and state-listed threatened piping plover (*Charadrius melodus*), rufa red knot (*Calidrus canutus rufa*), and the state-listed endangered Interior least tern (*Sternula antillarum athalassos*). Habitat for black-footed ferret, Eastern black rail, Interior least tern, grey wolf, rufa red knot, Interior least tern, and piping plover will not be impacted by this project, but habitat for Eskimo curlew and Northern long-eared bat exists within or near the project area. However, habitat for Eskimo curlew is not anticipated to be impacted by the project.

The Nebraska Department of Transportation (NDOT) has agreed to implement standard and species-specific conservation conditions in order to avoid impacts to Northern long-eared bat. In the event a borrow site associated with this project results in a depletion to the Platte River, NDOT will contact the appropriate agency, depending on which river basin the borrow site is located in, to address offsetting the depletion.

Based on this information, we concur the proposed project "May Affect, but is Not Likely to Adversely Affect" Northern long-eared bat and acknowledge that FHWA and NDOT determined the project will have no effect on all other state-listed endangered or threatened species. This concurrence is based on a review of the material you sent, aerial photographs, and our Nebraska Natural Heritage Database. If the proposed project is changed or new information regarding endangered and threatened species becomes available, then this concurrence is no longer valid and further consultation with the Nebraska Game and Parks Commission (Commission) will be necessary.

NDOT has reviewed the proposed project pursuant to the federal Fish and Wildlife Coordination Act (FWCA) and the federal Bald and Golden Eagle Protection Act (BGEPA). NDOT is implementing BMP's in order to avoid impacts to species and habitats protected under FWCA. A wetland delineation was conducted pursuant to FWCA, and it was determined a National Pollutant Discharge Elimination System permit from the Nebraska Department of Environmental Quality and a Section 404 permit from the U.S. Army Corps of Engineers will be needed. All impacts will be mitigated as required by these permits. Additionally, NDOT has identified bald eagle nesting habitat within ½ mile of the project area. NDOT has determined it will use the Bald Eagle Survey Protocol to avoid adverse impacts to bald eagles. NDOT will also use its Avian Protection Plan in order to reduce conflicts with migratory birds and comply with the federal Migratory Bird Treaty Act. The Commission acknowledges and supports these actions and this review process in order to avoid impacts to other state trust resources which do not receive legal protection under NESCA, but are still considered valuable for maintaining the ecological diversity within our state and are protected under federal laws.

For an assessment of potential impacts to habitats and species protected under federal wildlife laws, including federally listed, candidate or proposed endangered or threatened species, please contact the Nebraska Ecological Services Field Office (nebraskaes@fws.gov), U.S. Fish and Wildlife Service, 9325 South Alda Road, Wood River, NE 68883.

Thank you for the opportunity to comment. If you have any questions or need additional information, please feel free to contact me at (402) 471-5554 or jessica.tapp@nebraska.gov.

Sincerely,



Jessica Tapp, CWB®
Environmental Specialist III
Planning and Programming Division

ec: USFWS (Brooke Stansberry)
NDOT (Jeff Hartman)

Appendix Q

Cumulative Impacts

Technical Memorandum

Date: May 5, 2023

Project: Norfolk–Wisner
Project No. S-275-6(1052); Control No. 32319

Subject: Cumulative Impacts

Introduction

Federal Highway Administration (FHWA) and Nebraska Department of Transportation (NDOT) propose to expand US Highway 275 (US-275) from a two-lane highway to a four-lane expressway[1] along an approximately 16-mile segment in Stanton and Cuming Counties, Nebraska, referred to as Norfolk–Wisner (Figure 1). The proposed action (Project) has logical termini connecting two existing sections of four-lane expressway. It would begin approximately 0.3 mile west of the US-275 and Nebraska Highway 57 (N-57) junction, where it would connect to the existing four-lane roadway. The Project would extend east and south to 18th Street on the northwest side of Wisner, Nebraska, where it would tie into the existing US-275 four-lane roadway.

The purpose of this memo is to address cumulative impacts that could occur as a result of aggregate Project impacts and the impacts associated with other projects (e.g., road construction for other actions within or near the study corridors could also affect access and travel patterns). Cumulative impacts are identified and described for resources that would be potentially adversely affected by the Project and other actions near the Project that would have the potential to affect the same resources.

A cumulative impact is defined as, "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). Thus, cumulative impacts include the direct and indirect impacts of a project together with the impacts from reasonably foreseeable future actions of other projects.

This assessment of the cumulative impacts of federal, state, and private actions is required by Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA). The cumulative impacts with respect to the Project were evaluated in accordance with CEQ guidance (CEQ 1997) and other sources, including FHWA interim guidance titled "Questions and Answers Regarding Indirect and Cumulative Impact Considerations in the NEPA Process" (FHWA 2003) and the FHWA position paper titled "Secondary and Cumulative Impact Assessment in the Highway Project Development Process" (FHWA 1993).

Affected Environment

The Study Area to determine cumulative impacts includes the US-275 corridor between Norfolk and the US Highway 77 (US-77)/US-275 interchange and highway segments that intersect with the Project (N-57, Nebraska Highway 15 [N-15], and Nebraska Highway 51 [N-51]). The majority of land uses

[1] An expressway is a divided highway for through traffic, with full or partial interchange access control at major intersections and at-grade intersections at designated minor public road intersections.

within the US-275 corridor are agricultural, with communities scattered throughout and extensive agriculture-related industries and services supporting agriculture. The major hubs within the Study Area include Norfolk, West Point, and Fremont. Numerous smaller communities are scattered throughout the Study Area (Figure 2). The Elkhorn River and its associated floodplain are located adjacent to US-275 (within 1 to 2 miles) from Pilger to Hooper.

Actions Evaluated for Cumulative Impacts

The methodology used to address cumulative impacts involves identifying past, present, and reasonably foreseeable future actions; reviewing resources potentially affected by the Project; determining the approximate impact time frames and locations; considering the types of impacts likely for reasonably foreseeable future actions; and selecting the resources requiring detailed cumulative impact evaluation. For an action to be reasonably foreseeable, it must have advanced far enough in the planning process that its implementation is likely. The impacts of reasonably foreseeable future actions not associated with the Project include other federal, state, and private actions. Reasonably foreseeable future actions are not speculative, are likely to occur based on reliable sources, and are typically characterized in planning documents. Past actions can include those that are currently under construction and would be completed prior to the analyzed project or those that could change a region's functionality, such as traffic patterns or induced growth. Reasonably foreseeable future actions can include ongoing projects, such as transportation and commercial or industrial development, which are not expected to be completed by the time the analyzed project would begin construction or planned projects included in planning documents for the area. The NDOT 5-year transportation plan, Cuming County 1- and 6-year transportation plan, Stanton County and Cuming County Board of Commissioners, City of Wisner City Council, local news sources, and 20 years of aerial imagery were reviewed for other projects, including roadways, bridges, parks, and large developments. The following actions were identified.

Past Actions

Past actions on this segment of US-275 and adjacent highways include normal repair and maintenance, such as resurfacing and culvert and bridge repair. Four past projects or developments have been identified as intersecting with, or are adjacent to, the Project.

- One cattle operation, approximately 0.60 mile north of US-275 on 568th Avenue, expanded operations between 2006 and 2009. The original operation included 40 acres east of 568th Avenue. The expansion added approximately 50 acres west of 568th Avenue.
- NDOT Control Number (CN) 32376, S-275-6(1061), Wisner to West Point: work includes US-275 resurfacing from the eastern corporate limits of Wisner to approximately 2 miles west of the N-9 intersection. Construction for this project is planned for 2023, is expected to take one construction season, and would be complete prior to construction of the Norfolk–Wisner Project.
- NDOT CN 32021, F-275-6(1020), US-275 Norfolk East: work included expanding US-275 from two to four lanes from the eastern corporate limits of Norfolk to the intersection with N-57. Construction was completed between 2002 and 2003.
- NDOT CN 21492, F-275-6(1027), US-275 Hooper East and West: work included expanding US-275 from two to four lanes from the US-77/US-275 interchange to approximately 0.60 mile east of County Road H in Dodge County. The project included constructing a bypass around Hooper. Construction was completed between 2005 and 2007.

Present Actions

One present action was identified along the US-275 corridor.

- NDOT CN 32302, S-275-6(1050), US-275 Scribner to West Point: work includes expanding US-275 from two to four lanes beginning approximately 2.75 miles southeast of Scriber and extending north to 2 miles west of the Nebraska Highway 9 (N-9) intersection. The US-275 West Point to Scribner Expressway EIS determined the project start and end to represent logical termini connecting the existing four-lane facility at Hooper to N-9 north of West Point. The project is currently under construction, with completion anticipated in 2024.

Future Actions

Three future actions have been identified as adjacent to the Project. All of these are transportation projects sponsored by NDOT. As such, these projects would follow NDOT's project development procedures, including mitigation development.

- NDOT CN 32359, STP-7-3(111), In Stanton and North: work includes resurfacing N-57 from approximately the Nebraska Highway 24 (N-24) intersection to the US-275 intersection. Construction is planned for 2024 and is expected to take one construction season.
- NDOT CN 32406, STP-15-3(120), US-275 North: work includes resurfacing approximately 6 miles of N-15, beginning at the US-275 east junction and extending 1 mile north of the Stanton/Cuming/Wayne County line. Construction is planned for 2026/2027 and is expected to take one construction season.
- NDOT CN 32024A, S-275-6(1062), Wisner–West Point North: work includes expanding US-275 from two to four lanes from the eastern corporate limits of Wisner to approximately 2 miles west of the N-9 intersection west of West Point. This project would connect into the eastern terminus of the Scribner to West Point project discussed above. This is the final US-275 expressway system segment and would complete the expressway between Fremont and Norfolk. NDOT currently has funding programmed in fiscal year 2026 for design of this project. Although the ultimate construction timeframe of this project is unknown, it is included here for consideration of cumulative impacts.
- At a stakeholder meeting in August 2019, it was noted that a housing development was planned for the area between Wisner High School and N-51. To date this development has not been started, nor discussed or approved by County or City officials; therefore, it is not considered reasonably foreseeable.

US-275 Corridor

Upon completion of the Norfolk – Wisner and Wisner – West Point North projects, the US-275 corridor between Norfolk and Fremont will have been completely widened to a four-lane expressway via five expansion projects over approximately a 30-year period since 2000. As discussed above, three projects have already been completed and the remaining two would be completed within the next 10 years. While the projects occur within the same US-275 corridor, each project has independent utility from the others (additional detail regarding the 3 recent US-275 projects can be found in the attached Logical Termini Memo). Elements of a project's independent utility are its ability to meet the project purpose and need and be able to stand on its own if adjacent projects are not constructed.

The completed Norfolk East, Hooper East and West, and Scribner – West Point projects have all been serving the purpose of connecting communities and improving regional connectivity along US-275 in northeast Nebraska since the independent completion of each project. The Norfolk – Wisner project purpose is to advance the Norfolk to Fremont expressway and provide increased connectivity to

northeast Nebraska. The project would provide function and value (via additional miles of divided four-lane expressway) and would satisfy its FHWA-defined purpose. The US-275 Scribner to West Point purpose and need, defined as "USACE Overall Project Purpose" in the US-275 West Point to Scribner Expressway EIS (EIS - US 275 (army.mil)), is as follows "The overall Project purpose, as defined by USACE, is to safely and efficiently improve regional connectivity between West Point and Scribner for existing and future traffic volumes…". The project is currently under construction and would fulfill its purpose and need upon completion. With regard to the Wisner – West Point North project, the Scribner – West Point and Norfolk – Wisner projects would be constructed and serve their intended purpose and need regardless of whether the Wisner – West Point North segment was ever constructed.

Resources Considered for Impact Analysis

Because of the Study Area's characteristics, types of projects studied, and extent of impacts resulting from the Project Preferred Alternative, the cumulative impacts of past, present, and future actions were evaluated for the following resources: farmland, community impact assessment and transportation, and wetlands and water resources.

The following resources, which were assessed individually in the Norfolk–Wisner EA, were not evaluated for cumulative impacts because of the minor impacts resulting from the Preferred Alternative. A brief statement of why a detailed cumulative impacts analysis was deemed unnecessary is noted for each resource. No adverse, cumulative impacts are anticipated for any of these resources:

- Land use: Land use changes are not anticipated as a result of the Preferred Alternative. There would be conversion of agricultural land and residential farmstead property to NDOT ROW, but that this conversion is compatible with land use plans. Additionally, reasonably foreseeable future actions are not anticipated to result in substantial changes in local land use.
- Right-of-way (ROW) and relocations: No residential relocations are needed for the Preferred Alternative. Two farm buildings would require relocation or removal, but impacts would be compensated during the ROW process. It is possible that one or more of the reasonably foreseeable future actions may require relocations, but the different timeframes and locations of the actions are not anticipated to cause any adverse cumulative impacts.
- Recreation facilities: The Preferred Alternative, as planned, would result in an impact to Wisner-Pilger Public Schools property that is publicly available for recreation activities. Land would be acquired from the school, but the property would still be available for recreation during and following construction. No recreation facilities are known to be affected by the reasonably foreseeable future actions.
- Historic Properties: The Preferred Alternative, as planned, would result in an impact on the Sharpe Homestead site. These impacts would be resolved through consultation with the Nebraska State Historic Preservation Office. Cumulative impacts on the Sharpe Homestead Site from other projects is not anticipated due to the distance of the site from the other projects.
- Section 4(f): The Preferred Alternative, as planned, would result in a *de minimis* use of one Section 4(f) property, the Wisner-Pilger Public Schools property. Although reasonably foreseeable future actions could possibly affect Section 4(f) properties, the Preferred Alternative would not contribute to cumulative impacts on Wisner-Pilger Public Schools property.
- Utilities: Utilities would need to be relocated with the Preferred Alternative, and the relocations would be at the cost of the utility provider. It is possible that one or more of the reasonably

foreseeable future actions may require relocations, but the different timeframes and locations of the actions are not anticipated to cause any cumulative impacts.

- Air Quality: The Study Area is in attainment for air quality and the Preferred Alternative would not contribute to air quality degradation. Reasonably foreseeable future actions are not anticipated to result in substantial air quality changes.
- Noise: Noise patterns generated from roadway traffic would increase in proportion to traffic growth within the Study Area. It was determined that noise abatement was not reasonable for the Preferred Alternative. Reasonably foreseeable future actions are not anticipated to result in substantial changes to noise levels as they are removed from the Study Area.
- Hazardous materials: The Preferred Alternative would have a medium potential to encounter hazardous materials during construction. Construction commitments regarding encountering contamination are in place and would mitigate impacts. It is possible that one or more of the reasonably foreseeable future actions may encounter hazardous materials, but the different timeframes and locations of the actions are not anticipated to cause any cumulative impacts.
- Paleontology: There is a possibility to encounter paleontological resources during Preferred Alternative construction. The reasonably foreseeable future actions also have the potential to encounter paleontological resources, but the actions occur in different locations (miles apart) and are not anticipated to cause any cumulative impacts.
- Floodplain: The Preferred Alternative crosses six floodplains. One or more of the reasonably foreseeable future actions would also be constructed within floodplains, including the Elkhorn River floodplain. However, each project constructed within a 100-year floodplain boundary would need to go through an individual approval and permitting process that would account for consideration of overall impacts—past, present, and future—on floodplains and floodways.
- Water quality: The Preferred Alternative is located within wellhead protection areas for the communities of Pilger and Wisner. Thirteen domestic, irrigation, and monitoring wells may be closed or be relocated with the Preferred Alternative. The Preferred Alternative and reasonably foreseeable future actions would also include grading and soil disturbance. Cumulative impacts to surface and groundwater quality are not anticipated. Any project with an acre or more of soil or ground disturbance must meet National Pollutant Discharge Elimination System (NPDES) requirements, with protections for stormwater and water quality. Additionally, any impacts on wells or wellhead protection areas must comply with local and state regulations.
- Fish, Wildlife, and Vegetation: The Preferred Alternative was determined to have a minimal impact on wildlife. There are no biologically unique landscapes in the Study Area, and existing vegetation consists primarily of introduced species. Although reasonably foreseeable future actions may affect fish and wildlife, as well as their habitats, the Preferred Alternative would not contribute to cumulative impacts of the other considered actions. Additionally, federal, state, and NDOT standard specifications would require revegetation plans and other measures to restore disturbed areas post construction. The Preferred Alternative, as well as reasonably foreseeable actions, would comply with NDOT revegetation standard specifications and seed mixes.
- Threatened and endangered (T&E) species: The Preferred Alternative would result in a "May Affect, Not Likely to Adversely Affect" finding for the eastern black rail and northern long-eared bat. Conservation conditions to prevent an adverse effect would be utilized during construction. Although reasonably foreseeable future actions may also affect these T&E species, they would be evaluated under current NDOT T&E protocols with associated

construction commitments. Therefore, the Preferred Alternative would not contribute to cumulative impacts of the other considered actions.

Impacts of the No Build Alternative

Farmland

Although the two to four lane expansion of the Norfolk–Wisner segment of US-275 would not be constructed under the No Build Alternative, the other projects, including the Scribner–West Point and Wisner–West Point North projects, are presumed to occur. The one past resurfacing project and two future resurfacing projects may have converted, or may need to convert, farmland to a non-agricultural use, but amounts are expected to be minor. The past expanded cattle operation converted approximately 50 acres of farmland, but the conversion was consistent with local farmland uses. The two past US-275 projects, as well as the two future US-275 projects, are large expressway expansions, including a bypass around Scribner, as part of the Scribner to West Point project, and Hooper as part of Hooper East and West, which would convert adjacent farmland to highway ROW. Impacts on farmland as part of the past Hooper East and West and Norfolk East projects were evaluated as part of those projects, and coordination was completed with the US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) as needed. Impacts on farmland for the Scribner to West Point project were evaluated as part of the Environmental Impact Statement (EIS) led by the US Army Corps of Engineers (USACE). USACE and NRCS issued a joint Record of Decision (ROD) approving the project on May 5, 2021. The Wisner–West Point North project is in the planning phase and impacts on farmland would be considered throughout project development. Additional coordination with NRCS would be completed if needed during that time. No substantial cumulative impacts on farmland under the No Build Alternative are likely to occur.

Community Impact Assessment and Transportation

The No Build Alternative would not construct the Project, but the other projects identified above are presumed to occur. As a result, there would be no work beyond what is needed to complete routine roadway and bridge maintenance activities on US-275 between N-57 and Wisner. Users would have an expressway from Wisner to Omaha and N-57 to Norfolk, but a 2-lane highway in between the 4-lane segments. While connectivity would improve for areas along the Scribner–West Point and Wisner–West Point North projects, the No Build alternative is expected to have negative long-term impact on the communities and services in the Study Area. Connectivity along the US-275 corridor would remain fragmented, and traffic delays between Norfolk and Fremont would increase as traffic volumes increase. The past cattle operation expansion would also contribute to increased heavy truck traffic as cattle are taken to market. Delays would impact access to services and communities between N-57 and Wisner, west to Norfolk, and east to West Point.

Adverse impacts on the transportation network during construction of the other identified cumulative projects would be short-term and minor due to the 2+2 construction method that will allow traffic to be maintained on existing traffic lanes. Impacts would result from county road detours increasing driving time and distance to reach intended destinations, shifted traffic patterns that would be required to accommodate construction sites, lane closures, and closure/relocation of access points along the US-275 construction corridor.

Wetlands and Water Resources

Although the two to four lane expansion of the Norfolk–Wisner segment of US-275 would not be constructed under the No Build Alternative, the other projects, including the Scribner–West Point and Wisner–West Point North projects, are presumed to occur. The three past roadway projects and cattle operation expansion have been or would be completed and impacts on wetlands and water resources

have been evaluated and permitted as part of those projects. Wetland and water resource impacts for each future project can be expected, but each project would be required to follow local, state, and federal laws, which would reduce any cumulative impacts on wetlands and water resources. Additionally, any project utilizing federal transportation funds must adhere to the net gain of wetland policy (23 CFR 777.11(g)) where there would be no net loss of wetlands across the program in a given year.

The Scribner–West Point project was permitted for wetland and water resource impacts under a Clean Water Act Individual Permit on May 12, 2021. The project was permitted for 114.51 acres of permanent wetland impacts with 136.7 acres of compensatory mitigation occurring at two mitigation sites and two mitigation banks. The Wisner – West Point project is in the early planning stages. Design has not begun, but for purposes of this analysis, widen north and widen south corridor-level alternatives have been developed. Preliminary wetland impacts with these alternatives range from 14 to 45 acres and waterway impacts range from 1,500 feet to 3,500 feet. Actual wetland and water resource impacts would be determined during final design and all impacts from the Wisner – West Point project would be permitted in compliance with Section 404 of the Clean Water Act and mitigated according to the permit.

Impacts of the Preferred Alternative

Farmland

The Project's Preferred Alternative would convert 324 acres of farmland into an expressway system. Approximately 216 acres of this farmland are listed as prime or unique. The NRCS-CPA-106 (Farmland Conversion Impact Rating for Corridor Type Projects) forms show that the highest possible "Total Points" that could be reached would only be 157 in Stanton County and 159 in Cuming County. The 160-point site assessment threshold for additional site consideration and protection would not be reached. The Preferred Alternative would not likely result in the conversion of surrounding farmland to nonagricultural use, beyond that needed for the Preferred Alternative. No coordination with NRCS is required. As discussed in the No Build Alternative, the two resurfacing projects may need to convert farmland to a non-agricultural use, but amounts are expected to be very minor, and the expanded cattle operation is consistent with agricultural land uses. Farmland impacts resulting from the Scribner–West Point project were evaluated under the USACE EIS and determined to be minor. The EIS was approved by both USACE and NRCS. Farmland impacts resulting from the Wisner–West Point North project would be similar in magnitude to the Scribner – West Point project and the Preferred Alternative as it would be constructed using the same 2+2 method as these other projects. Cumulative impacts on farmland from construction of the Preferred Alternative with the other projects are expected to be minor and beneficial because the projects would improve the transportation network and would benefit agriculture in the Study Area.

Community Impact Assessment and Transportation

Cumulative impacts are not anticipated between the Preferred Alternative and the two resurfacing projects, one past resurfacing project, and the expanded cattle operation. The two resurfacing projects would be completed by the time the Preferred Alternative would begin construction, and adverse cumulative impacts on the communities surrounding the projects, as well as the transportation facilities, would not occur. US-275 is currently experiencing additional heavy truck traffic from the expanded cattle operation, and the Preferred Alternative would increase capacity and reduce the traffic delay associated with heavy truck traffic.

With regard to the Preferred Alternative, the past two US-275 projects, and the Scribner–West Point and Wisner–West Point North projects, constructing US-275's three remaining segments would result in beneficial, long-term, cumulative impacts on the surrounding communities and transportation

network within northeast Nebraska. The two previous US-275 projects were constructed 15 to 20 years ago and the communities along those segments of the corridor are already experiencing cumulative benefits from those expansions. The US-275 corridor serves as a critical connection between major food producers, American-made steel, and the wider US economy. According to the 2017 Census of Agriculture, the counties adjacent to the corridor have some of the highest levels of cattle and grain production in the US. The US-275 improvements would provide more reliable regional access, thereby enhancing the economic, employment, service, healthcare, and educational connections for the surrounding region. Expanding and improving the corridor would better connect producers to Nebraska's freight and passenger transportation network. The projects would decrease transportation costs and improve access for shippers and residents of adjacent rural communities by reducing unexpected delays and supply chain bottlenecks and improving travel times. The 2015 Nebraska's Highway 275 4-Lane Expansion report estimated an increase of $1.2 billion in the State of Nebraska gross domestic production (the total value of goods and services) over 15 years from construction of the 47-mile segment of US-275 from Hooper to Norfolk (Goss and Associates 2015). Adverse impacts on the transportation network during construction of the other identified cumulative projects would be short-term and minor due to the 2+2 construction method that allows traffic to be maintained on existing traffic lanes. The minor short-term impacts would result from county road detours increasing driving time and distance to reach intended destinations, shifted traffic patterns that would be required to accommodate construction sites, lane closures, and closure/relocation of access points along the US-275 construction corridor.

The Preferred Alternative, in conjunction with the Scribner–West Point and Wisner–West Point North projects, has the potential to induce growth in the region. Improvements to all three remaining US-275 segments would accommodate increased vehicular volume and connections, likely resulting in expanded regional development, particularly in Norfolk. As discussed above, Norfolk is a regional hub for commercial and industrial development. The timeframe for this growth is not known, but it is likely beyond 10 years in the future. The City of Norfolk has an economic development plan in place to address new and existing business expansions within the area. For the three US-275 projects, it is anticipated that there could be an increase in development in the Norfolk area, but the projects are unlikely to increase development along most of the corridor. This is due to the low population density, the lack of centers of employment, and the agricultural nature of the Study Area. As such, development along the corridor would not be considered induced as the projects' purposes are connectivity and not development.

Wetlands and Water Resources

Cumulative impacts would not occur between the Preferred Alternative and the three resurfacing projects because these other projects would have minimal impacts on wetlands and water resources. Cumulative impacts would also not occur in conjunction with the two past roadway expansion projects (Norfolk East and Hooper East and West) and past expanded cattle operation because these projects were constructed more than a decade before the Preferred Alternative and the wetland and water resource impacts of these past projects were mitigated at that time in accordance with local, state, and federal laws. Additionally, based on the time that has passed, mitigation for those projects would be fully established and functioning so any past impact would have been restored.

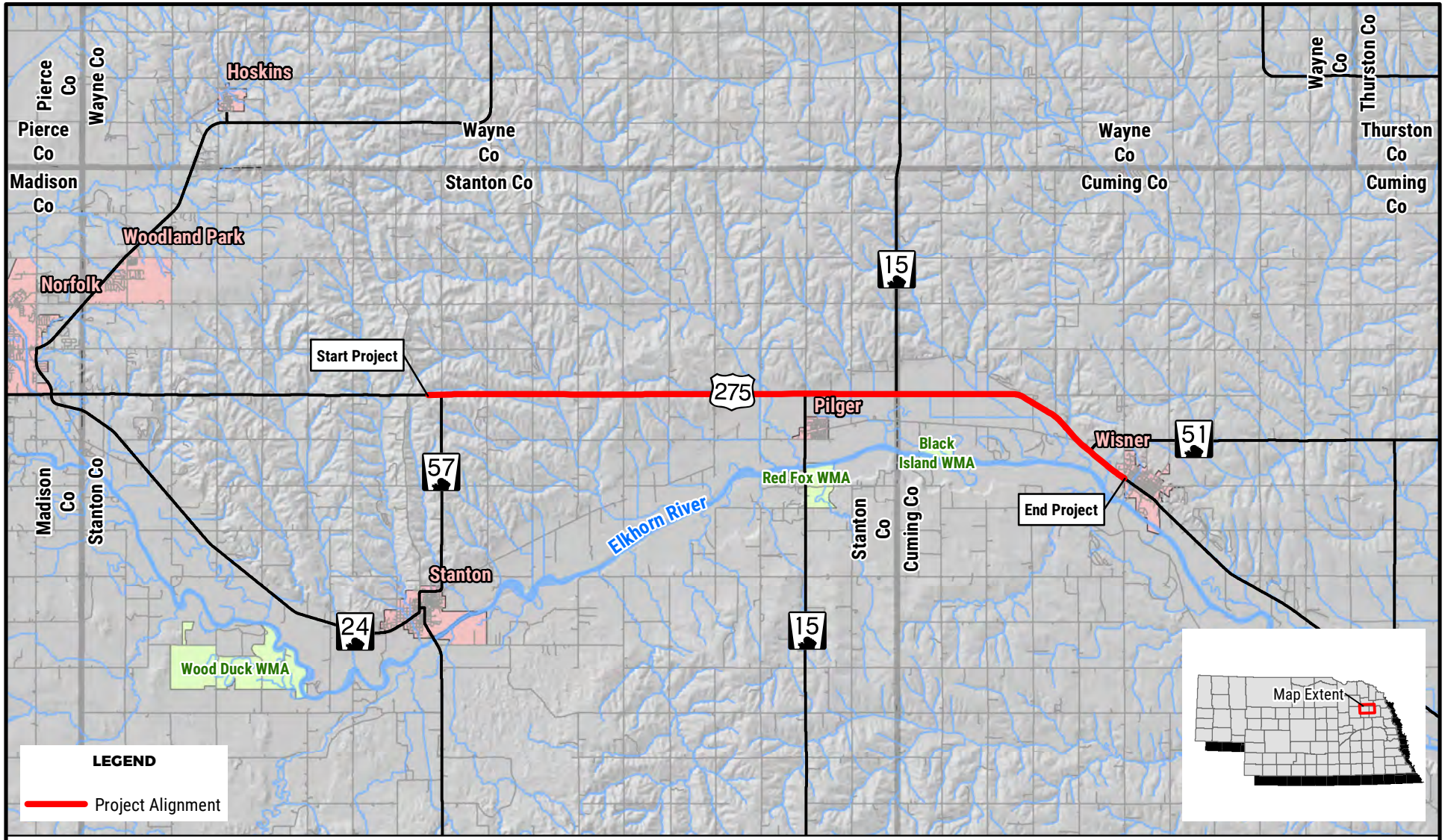
The Preferred Alternative is expected to impact approximately 13.15 acres of wetlands and 0.61 acre of waterway. The impacted wetlands are predominantly located in roadside ditches and are dominated by non-native species. The affected waterways are typically incised and of low quality based on the Nebraska Stream Condition Assessment (NeSCAP). As discussed in the No Build Alternative, the Scribner–West Point project had 114.51 acres of wetland impact. Based on a preliminary analysis, wetland impacts from the Wisner – West Point project, are expected to be between 14 and 45 acres and waterway impacts between 1,500 feet and 3,500 feet. All wetland and

water resources impacts from the Wisner – West Point project would be permitted in compliance with Section 404 of the Clean Water Act and mitigated according to the permit. Additionally, any project utilizing federal transportation funds must adhere to the net gain of wetland policy (23 CFR 777.11(g)) where there would be no net loss of wetlands across the program in a given year.

The Preferred Alternative would ultimately have minor to moderate beneficial cumulative impacts on wetlands and water resources with consideration of resource quality and permitting and mitigation requirements for the Scribner–West Point and Wisner–West Point North projects. The 114.51 acres of wetland impact resulting from the Scribner – West Point project were mitigated via 136.7 acres of new wetlands at two mitigation banks and two mitigation sites. The two mitigation sites are located within 1 mile of the Elkhorn River and combined provide over 100 acres of high-quality wetlands and habitat compared to the impacted wetlands, many of which were narrow, low-quality ditch wetlands. Stream channel impacts with the Scribner - West Point project did not require mitigation. The Preferred Alternative and Wisner – West Point North projects would also create new wetlands at a greater than 1:1 ratio. The Preferred Alternative is anticipated to be mitigated at a mitigation site west of Wisner, adjacent to the Elkhorn River, creating a large area of high-quality wetlands and habitat in the Elkhorn River floodplain, compared to the low-quality ditch wetlands impacted by the Preferred Alternative. Additionally, stream impacts associated with the Preferred Alternative would be mitigated in accordance with the Nebraska Stream Condition Assessment Procedure (NeSCAP) and the Section 404 permit. Impacts resulting from the Wisner – West Point North project would be mitigated at an appropriate wetland mitigation bank or wetland and/or stream mitigation site. All sites constructed for mitigation are or would be located within the appropriate watershed and planted with an appropriate wetland seed mix. Due to this net increase in wetlands as well as the increased quality of wetlands and habitat developed in conjunction with the projects, cumulative impacts on wetlands and water resources are expected to be minor to moderate and beneficial.

Conclusions

The Preferred Alternative would not result in long-term adverse cumulative impacts to farmland or wetlands and water resources in consideration of past, present, or reasonably foreseeable actions. The Preferred Alternative would result in long-term beneficial cumulative impacts to the communities and transportation network surrounding the US-275 corridor. Each project would improve the condition and reliability of the transportation network and increase connectivity to essential services within the region, resulting in cumulative beneficial impact. Temporary impacts associated with Preferred Alternative construction are expected but would not result in cumulative impacts with the other projects as they occur in different timeframes and locations.



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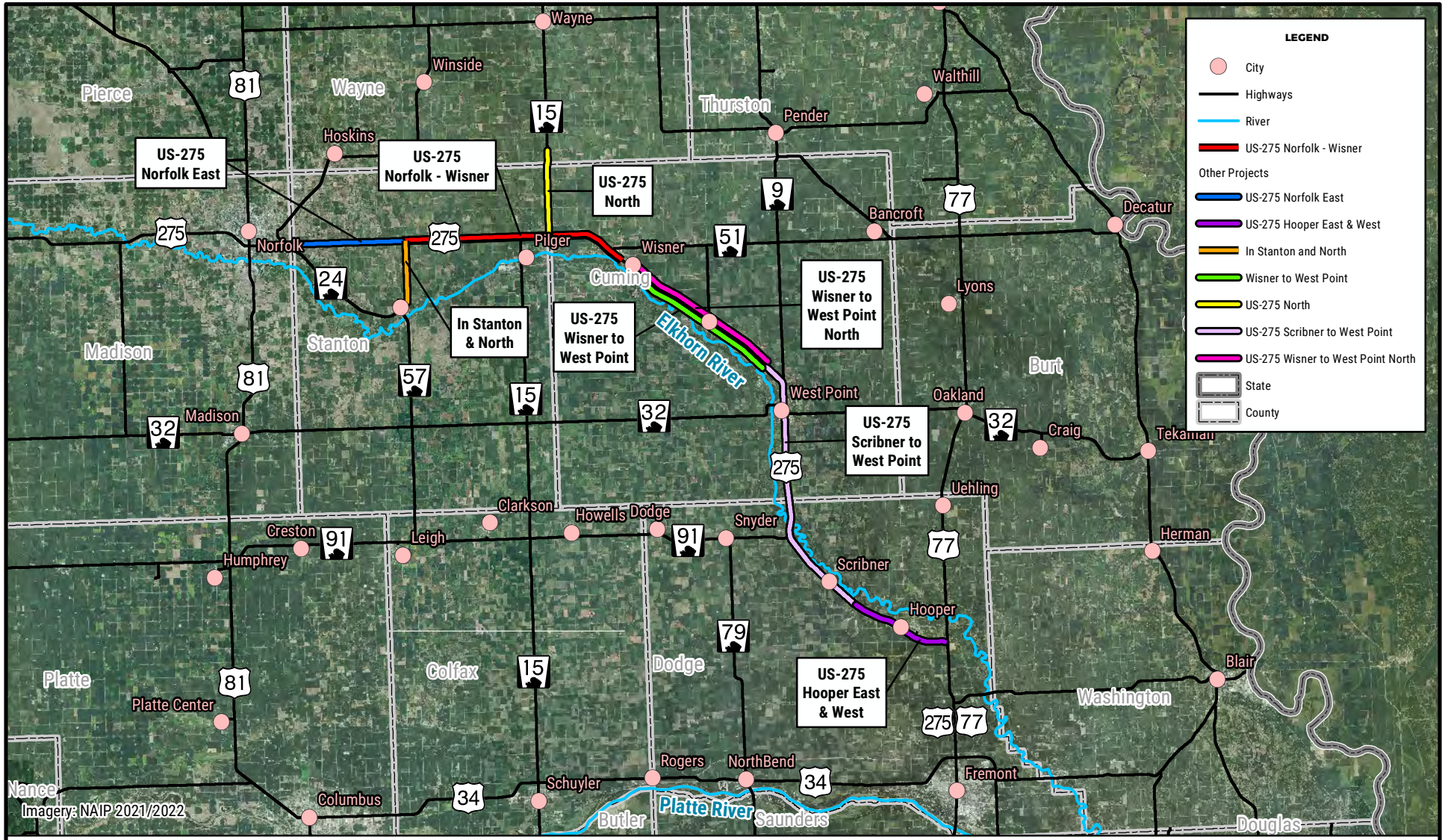

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Memo

Date:	Tuesday, March 14, 2023		
Project:	NDOT US-275 Norfolk-Wisner Project No. 275-6(1052) CN 32319	HDR Project No.	10165712
To:	NDOT		
From:	HDR		
Subject:	Responses to USACE Questions on Logical Termini and Independent Utility		

The following memo is provided in response to January 2023 concerns expressed by USACE NRO regarding logical termini and independent utility, as they relate to the NDOT projects on US-275 between Norfolk and Scribner, Nebraska (Norfolk to Wisner, Wisner to West Point, and West Point to Scribner). This memo documents that each of these projects has logical termini and independent utility.

Logical Termini

Norfolk to Wisner – the Norfolk to Wisner project has a straight-forward definition of logical termini as connecting two segments of 4-lane roadway between the existing four lanes of US-275 at N-57 and the four-lane segment within Wisner. An Environmental Assessment and preliminary design are currently being developed for this segment and construction funding is included in the STIP.

West Point to Scribner – the US-275 West Point to Scribner Expressway EIS section on logical termini (1.1.2 of Volume I) relies on NDOT's establishment of the project's logical termini and summarizes NDOT's rationale. The southern terminus was noted as connecting to the existing 4-lane highway with no additional discussion or detail. However, there was substantial discussion to justify the northern terminus (west of N-9) since that terminus did not connect to a four-lane section and was not an obvious terminus (such as connecting two segments of four-lane roadway). The justification included discussion of rationale for including N-9 with the project and crossover geometry, including undesirable situations such as on a superelevated curve, in proximity to a bridge with guardrail, proximity to intersections, etc. This segment is currently under construction.

Wisner to West Point – the Wisner to West Point project also has straight-forward logical termini as connecting two segments of 4-lane roadway between the existing four lanes of US-275 in Wisner and the soon to be completed four-lane roadway west of N-9 (currently under construction with the West Point to Scribner Expressway). This segment is currently funded for design, but design has not yet started. Construction funding is not currently included in the STIP.

The methodology contained in FHWA's paper on Development of Logical Termini (Environmental Review Toolkit (dot.gov) supports the development of the remaining two-lane US-275 corridor as three separate segments with logical termini based on funding availability:

"If there is a demonstrated need for improvements in the entire corridor from point A to point C, there may still be no funding available and no likelihood of improving the entire corridor in the near future. In this case, the project from point A to point B could still be implemented…" This statement includes the caveat that the following conditions are met, all of which are met by the US-275 projects.

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- Project serves an identified need and stands on its own from point A to point B
- Project would not force immediate improvements on the remainder of the facility from point B to point C
- Project does not restrict alternatives on the remaining segment to the point where environmental requirements would be difficult or impossible to satisfy.

When the decision to move forward with three separate projects was made back in 2018, funding was only available for the Scribner to West Point segment. Since then, NDOT has identified funding for the Norfolk to Wisner segment and has been developing NEPA documentation for that stand alone project. Construction funding for the remaining segment, Wisner to West Point is not programmed and the timeframe for construction is uncertain and dependent on many factors related to NDOT's overall STIP.

Independent Utility

Elements of a project's independent utility are its ability to meet the project purpose and need and be able to stand on its own if adjacent projects are not constructed. The Norfolk to Wisner project purpose is to advance the Norfolk to Fremont expressway and provide increased connectivity to northeast Nebraska. The project would provide function and value (via additional miles of divided four-lane expressway) and would satisfy its FHWA-defined purpose. The US-275 Scribner to West Point purpose and need, defined as "USACE Overall Project Purpose" in the US-275 West Point to Scribner Expressway EIS (EIS - US 275 (army.mil)), is as follows "The overall Project purpose, as defined by USACE, is to safely and efficiently improve regional connectivity between West Point and Scribner for existing and future traffic volumes…". The project is currently under construction and would fulfill its purpose and need.

Additionally, the independent utility of the projects within the US-275 corridor have a noteworthy difference when compared with the US-30 Schuyler to Fremont expressway corridor, for which USACE evaluated environmental impacts for the entire corridor and authorized construction of the three segments via a single Section 404 permit with two amendments. US-30 involved new alignment and project segmentation in the middle of an undeveloped field (well removed from the existing highway corridor). That is, the easternmost US-30 segments were wholly dependent upon one another and did not have independent utility. That is not the case along US-275. Both the Norfolk to Wisner project and Scribner to West Point project are located approximately 12 miles apart from each other and would be constructed years apart, construction beginning in 2025 for Norfolk to Wisner and construction finishing in 2024 for Scribner to West Point. These two projects can be considered independent from each other. With regards to the Wisner to West Point project, the two previous US-275 projects would be constructed and serve their intended purpose and needs regardless of whether the Wisner to West Point Expressway segment was ever constructed.

Conclusion

As the lead federal agency for NEPA, USACE determined that the West Point to Scribner project has logical termini and independent utility. Similarly, FHWA, as the lead federal agency for NEPA, determined that the Norfolk to Wisner project has logical termini and independent utility. During the initial multi-agency coordination meeting in 2019 and the three subsequent pre-application meetings spanning 2019-2021, neither USACE nor any other agencies have expressed concerns about the logical termini for the Norfolk to Wisner project. Additionally, all three segments of would have independent utility from each other due to funding, construction timing, and location.

Appendix Q

Cumulative Impacts

Technical Memorandum

Date: May 5, 2023

Project: Norfolk–Wisner
Project No. S-275-6(1052); Control No. 32319

Subject: Cumulative Impacts

Introduction

Federal Highway Administration (FHWA) and Nebraska Department of Transportation (NDOT) propose to expand US Highway 275 (US-275) from a two-lane highway to a four-lane expressway[1] along an approximately 16-mile segment in Stanton and Cuming Counties, Nebraska, referred to as Norfolk–Wisner (Figure 1). The proposed action (Project) has logical termini connecting two existing sections of four-lane expressway. It would begin approximately 0.3 mile west of the US-275 and Nebraska Highway 57 (N-57) junction, where it would connect to the existing four-lane roadway. The Project would extend east and south to 18th Street on the northwest side of Wisner, Nebraska, where it would tie into the existing US-275 four-lane roadway.

The purpose of this memo is to address cumulative impacts that could occur as a result of aggregate Project impacts and the impacts associated with other projects (e.g., road construction for other actions within or near the study corridors could also affect access and travel patterns). Cumulative impacts are identified and described for resources that would be potentially adversely affected by the Project and other actions near the Project that would have the potential to affect the same resources.

A cumulative impact is defined as, "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). Thus, cumulative impacts include the direct and indirect impacts of a project together with the impacts from reasonably foreseeable future actions of other projects.

This assessment of the cumulative impacts of federal, state, and private actions is required by Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA). The cumulative impacts with respect to the Project were evaluated in accordance with CEQ guidance (CEQ 1997) and other sources, including FHWA interim guidance titled "Questions and Answers Regarding Indirect and Cumulative Impact Considerations in the NEPA Process" (FHWA 2003) and the FHWA position paper titled "Secondary and Cumulative Impact Assessment in the Highway Project Development Process" (FHWA 1993).

Affected Environment

The Study Area to determine cumulative impacts includes the US-275 corridor between Norfolk and the US Highway 77 (US-77)/US-275 interchange and highway segments that intersect with the Project (N-57, Nebraska Highway 15 [N-15], and Nebraska Highway 51 [N-51]). The majority of land uses

[1] An expressway is a divided highway for through traffic, with full or partial interchange access control at major intersections and at-grade intersections at designated minor public road intersections.

within the US-275 corridor are agricultural, with communities scattered throughout and extensive agriculture-related industries and services supporting agriculture. The major hubs within the Study Area include Norfolk, West Point, and Fremont. Numerous smaller communities are scattered throughout the Study Area (Figure 2). The Elkhorn River and its associated floodplain are located adjacent to US-275 (within 1 to 2 miles) from Pilger to Hooper.

Actions Evaluated for Cumulative Impacts

The methodology used to address cumulative impacts involves identifying past, present, and reasonably foreseeable future actions; reviewing resources potentially affected by the Project; determining the approximate impact time frames and locations; considering the types of impacts likely for reasonably foreseeable future actions; and selecting the resources requiring detailed cumulative impact evaluation. For an action to be reasonably foreseeable, it must have advanced far enough in the planning process that its implementation is likely. The impacts of reasonably foreseeable future actions not associated with the Project include other federal, state, and private actions. Reasonably foreseeable future actions are not speculative, are likely to occur based on reliable sources, and are typically characterized in planning documents. Past actions can include those that are currently under construction and would be completed prior to the analyzed project or those that could change a region's functionality, such as traffic patterns or induced growth. Reasonably foreseeable future actions can include ongoing projects, such as transportation and commercial or industrial development, which are not expected to be completed by the time the analyzed project would begin construction or planned projects included in planning documents for the area. The NDOT 5-year transportation plan, Cuming County 1- and 6-year transportation plan, Stanton County and Cuming County Board of Commissioners, City of Wisner City Council, local news sources, and 20 years of aerial imagery were reviewed for other projects, including roadways, bridges, parks, and large developments. The following actions were identified.

Past Actions

Past actions on this segment of US-275 and adjacent highways include normal repair and maintenance, such as resurfacing and culvert and bridge repair. Four past projects or developments have been identified as intersecting with, or are adjacent to, the Project.

- One cattle operation, approximately 0.60 mile north of US-275 on 568th Avenue, expanded operations between 2006 and 2009. The original operation included 40 acres east of 568th Avenue. The expansion added approximately 50 acres west of 568th Avenue.
- NDOT Control Number (CN) 32376, S-275-6(1061), Wisner to West Point: work includes US-275 resurfacing from the eastern corporate limits of Wisner to approximately 2 miles west of the N-9 intersection. Construction for this project is planned for 2023, is expected to take one construction season, and would be complete prior to construction of the Norfolk–Wisner Project.
- NDOT CN 32021, F-275-6(1020), US-275 Norfolk East: work included expanding US-275 from two to four lanes from the eastern corporate limits of Norfolk to the intersection with N-57. Construction was completed between 2002 and 2003.
- NDOT CN 21492, F-275-6(1027), US-275 Hooper East and West: work included expanding US-275 from two to four lanes from the US-77/US-275 interchange to approximately 0.60 mile east of County Road H in Dodge County. The project included constructing a bypass around Hooper. Construction was completed between 2005 and 2007.

Present Actions

One present action was identified along the US-275 corridor.

- NDOT CN 32302, S-275-6(1050), US-275 Scribner to West Point: work includes expanding US-275 from two to four lanes beginning approximately 2.75 miles southeast of Scriber and extending north to 2 miles west of the Nebraska Highway 9 (N-9) intersection. The US-275 West Point to Scribner Expressway EIS determined the project start and end to represent logical termini connecting the existing four-lane facility at Hooper to N-9 north of West Point. The project is currently under construction, with completion anticipated in 2024.

Future Actions

Three future actions have been identified as adjacent to the Project. All of these are transportation projects sponsored by NDOT. As such, these projects would follow NDOT's project development procedures, including mitigation development.

- NDOT CN 32359, STP-7-3(111), In Stanton and North: work includes resurfacing N-57 from approximately the Nebraska Highway 24 (N-24) intersection to the US-275 intersection. Construction is planned for 2024 and is expected to take one construction season.
- NDOT CN 32406, STP-15-3(120), US-275 North: work includes resurfacing approximately 6 miles of N-15, beginning at the US-275 east junction and extending 1 mile north of the Stanton/Cuming/Wayne County line. Construction is planned for 2026/2027 and is expected to take one construction season.
- NDOT CN 32024A, S-275-6(1062), Wisner–West Point North: work includes expanding US-275 from two to four lanes from the eastern corporate limits of Wisner to approximately 2 miles west of the N-9 intersection west of West Point. This project would connect into the eastern terminus of the Scribner to West Point project discussed above. This is the final US-275 expressway system segment and would complete the expressway between Fremont and Norfolk. NDOT currently has funding programmed in fiscal year 2026 for design of this project. Although the ultimate construction timeframe of this project is unknown, it is included here for consideration of cumulative impacts.
- At a stakeholder meeting in August 2019, it was noted that a housing development was planned for the area between Wisner High School and N-51. To date this development has not been started, nor discussed or approved by County or City officials; therefore, it is not considered reasonably foreseeable.

US-275 Corridor

Upon completion of the Norfolk – Wisner and Wisner – West Point North projects, the US-275 corridor between Norfolk and Fremont will have been completely widened to a four-lane expressway via five expansion projects over approximately a 30-year period since 2000. As discussed above, three projects have already been completed and the remaining two would be completed within the next 10 years. While the projects occur within the same US-275 corridor, each project has independent utility from the others (additional detail regarding the 3 recent US-275 projects can be found in the attached Logical Termini Memo). Elements of a project's independent utility are its ability to meet the project purpose and need and be able to stand on its own if adjacent projects are not constructed.

The completed Norfolk East, Hooper East and West, and Scribner – West Point projects have all been serving the purpose of connecting communities and improving regional connectivity along US-275 in northeast Nebraska since the independent completion of each project. The Norfolk – Wisner project purpose is to advance the Norfolk to Fremont expressway and provide increased connectivity to

northeast Nebraska. The project would provide function and value (via additional miles of divided four-lane expressway) and would satisfy its FHWA-defined purpose. The US-275 Scribner to West Point purpose and need, defined as "USACE Overall Project Purpose" in the US-275 West Point to Scribner Expressway EIS (EIS - US 275 (army.mil)), is as follows "The overall Project purpose, as defined by USACE, is to safely and efficiently improve regional connectivity between West Point and Scribner for existing and future traffic volumes…". The project is currently under construction and would fulfill its purpose and need upon completion. With regard to the Wisner – West Point North project, the Scribner – West Point and Norfolk – Wisner projects would be constructed and serve their intended purpose and need regardless of whether the Wisner – West Point North segment was ever constructed.

Resources Considered for Impact Analysis

Because of the Study Area's characteristics, types of projects studied, and extent of impacts resulting from the Project Preferred Alternative, the cumulative impacts of past, present, and future actions were evaluated for the following resources: farmland, community impact assessment and transportation, and wetlands and water resources.

The following resources, which were assessed individually in the Norfolk–Wisner EA, were not evaluated for cumulative impacts because of the minor impacts resulting from the Preferred Alternative. A brief statement of why a detailed cumulative impacts analysis was deemed unnecessary is noted for each resource. No adverse, cumulative impacts are anticipated for any of these resources:

- Land use: Land use changes are not anticipated as a result of the Preferred Alternative. There would be conversion of agricultural land and residential farmstead property to NDOT ROW, but that this conversion is compatible with land use plans. Additionally, reasonably foreseeable future actions are not anticipated to result in substantial changes in local land use.
- Right-of-way (ROW) and relocations: No residential relocations are needed for the Preferred Alternative. Two farm buildings would require relocation or removal, but impacts would be compensated during the ROW process. It is possible that one or more of the reasonably foreseeable future actions may require relocations, but the different timeframes and locations of the actions are not anticipated to cause any adverse cumulative impacts.
- Recreation facilities: The Preferred Alternative, as planned, would result in an impact to Wisner-Pilger Public Schools property that is publicly available for recreation activities. Land would be acquired from the school, but the property would still be available for recreation during and following construction. No recreation facilities are known to be affected by the reasonably foreseeable future actions.
- Historic Properties: The Preferred Alternative, as planned, would result in an impact on the Sharpe Homestead site. These impacts would be resolved through consultation with the Nebraska State Historic Preservation Office. Cumulative impacts on the Sharpe Homestead Site from other projects is not anticipated due to the distance of the site from the other projects.
- Section 4(f): The Preferred Alternative, as planned, would result in a *de minimis* use of one Section 4(f) property, the Wisner-Pilger Public Schools property. Although reasonably foreseeable future actions could possibly affect Section 4(f) properties, the Preferred Alternative would not contribute to cumulative impacts on Wisner-Pilger Public Schools property.
- Utilities: Utilities would need to be relocated with the Preferred Alternative, and the relocations would be at the cost of the utility provider. It is possible that one or more of the reasonably

foreseeable future actions may require relocations, but the different timeframes and locations of the actions are not anticipated to cause any cumulative impacts.

- Air Quality: The Study Area is in attainment for air quality and the Preferred Alternative would not contribute to air quality degradation. Reasonably foreseeable future actions are not anticipated to result in substantial air quality changes.
- Noise: Noise patterns generated from roadway traffic would increase in proportion to traffic growth within the Study Area. It was determined that noise abatement was not reasonable for the Preferred Alternative. Reasonably foreseeable future actions are not anticipated to result in substantial changes to noise levels as they are removed from the Study Area.
- Hazardous materials: The Preferred Alternative would have a medium potential to encounter hazardous materials during construction. Construction commitments regarding encountering contamination are in place and would mitigate impacts. It is possible that one or more of the reasonably foreseeable future actions may encounter hazardous materials, but the different timeframes and locations of the actions are not anticipated to cause any cumulative impacts.
- Paleontology: There is a possibility to encounter paleontological resources during Preferred Alternative construction. The reasonably foreseeable future actions also have the potential to encounter paleontological resources, but the actions occur in different locations (miles apart) and are not anticipated to cause any cumulative impacts.
- Floodplain: The Preferred Alternative crosses six floodplains. One or more of the reasonably foreseeable future actions would also be constructed within floodplains, including the Elkhorn River floodplain. However, each project constructed within a 100-year floodplain boundary would need to go through an individual approval and permitting process that would account for consideration of overall impacts—past, present, and future—on floodplains and floodways.
- Water quality: The Preferred Alternative is located within wellhead protection areas for the communities of Pilger and Wisner. Thirteen domestic, irrigation, and monitoring wells may be closed or be relocated with the Preferred Alternative. The Preferred Alternative and reasonably foreseeable future actions would also include grading and soil disturbance. Cumulative impacts to surface and groundwater quality are not anticipated. Any project with an acre or more of soil or ground disturbance must meet National Pollutant Discharge Elimination System (NPDES) requirements, with protections for stormwater and water quality. Additionally, any impacts on wells or wellhead protection areas must comply with local and state regulations.
- Fish, Wildlife, and Vegetation: The Preferred Alternative was determined to have a minimal impact on wildlife. There are no biologically unique landscapes in the Study Area, and existing vegetation consists primarily of introduced species. Although reasonably foreseeable future actions may affect fish and wildlife, as well as their habitats, the Preferred Alternative would not contribute to cumulative impacts of the other considered actions. Additionally, federal, state, and NDOT standard specifications would require revegetation plans and other measures to restore disturbed areas post construction. The Preferred Alternative, as well as reasonably foreseeable actions, would comply with NDOT revegetation standard specifications and seed mixes.
- Threatened and endangered (T&E) species: The Preferred Alternative would result in a "May Affect, Not Likely to Adversely Affect" finding for the eastern black rail and northern long-eared bat. Conservation conditions to prevent an adverse effect would be utilized during construction. Although reasonably foreseeable future actions may also affect these T&E species, they would be evaluated under current NDOT T&E protocols with associated

construction commitments. Therefore, the Preferred Alternative would not contribute to cumulative impacts of the other considered actions.

Impacts of the No Build Alternative

Farmland

Although the two to four lane expansion of the Norfolk–Wisner segment of US-275 would not be constructed under the No Build Alternative, the other projects, including the Scribner–West Point and Wisner–West Point North projects, are presumed to occur. The one past resurfacing project and two future resurfacing projects may have converted, or may need to convert, farmland to a non-agricultural use, but amounts are expected to be minor. The past expanded cattle operation converted approximately 50 acres of farmland, but the conversion was consistent with local farmland uses. The two past US-275 projects, as well as the two future US-275 projects, are large expressway expansions, including a bypass around Scribner, as part of the Scribner to West Point project, and Hooper as part of Hooper East and West, which would convert adjacent farmland to highway ROW. Impacts on farmland as part of the past Hooper East and West and Norfolk East projects were evaluated as part of those projects, and coordination was completed with the US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) as needed. Impacts on farmland for the Scribner to West Point project were evaluated as part of the Environmental Impact Statement (EIS) led by the US Army Corps of Engineers (USACE). USACE and NRCS issued a joint Record of Decision (ROD) approving the project on May 5, 2021. The Wisner–West Point North project is in the planning phase and impacts on farmland would be considered throughout project development. Additional coordination with NRCS would be completed if needed during that time. No substantial cumulative impacts on farmland under the No Build Alternative are likely to occur.

Community Impact Assessment and Transportation

The No Build Alternative would not construct the Project, but the other projects identified above are presumed to occur. As a result, there would be no work beyond what is needed to complete routine roadway and bridge maintenance activities on US-275 between N-57 and Wisner. Users would have an expressway from Wisner to Omaha and N-57 to Norfolk, but a 2-lane highway in between the 4-lane segments. While connectivity would improve for areas along the Scribner–West Point and Wisner–West Point North projects, the No Build alternative is expected to have negative long-term impact on the communities and services in the Study Area. Connectivity along the US-275 corridor would remain fragmented, and traffic delays between Norfolk and Fremont would increase as traffic volumes increase. The past cattle operation expansion would also contribute to increased heavy truck traffic as cattle are taken to market. Delays would impact access to services and communities between N-57 and Wisner, west to Norfolk, and east to West Point.

Adverse impacts on the transportation network during construction of the other identified cumulative projects would be short-term and minor due to the 2+2 construction method that will allow traffic to be maintained on existing traffic lanes. Impacts would result from county road detours increasing driving time and distance to reach intended destinations, shifted traffic patterns that would be required to accommodate construction sites, lane closures, and closure/relocation of access points along the US-275 construction corridor.

Wetlands and Water Resources

Although the two to four lane expansion of the Norfolk–Wisner segment of US-275 would not be constructed under the No Build Alternative, the other projects, including the Scribner–West Point and Wisner–West Point North projects, are presumed to occur. The three past roadway projects and cattle operation expansion have been or would be completed and impacts on wetlands and water resources

have been evaluated and permitted as part of those projects. Wetland and water resource impacts for each future project can be expected, but each project would be required to follow local, state, and federal laws, which would reduce any cumulative impacts on wetlands and water resources. Additionally, any project utilizing federal transportation funds must adhere to the net gain of wetland policy (23 CFR 777.11(g)) where there would be no net loss of wetlands across the program in a given year.

The Scribner–West Point project was permitted for wetland and water resource impacts under a Clean Water Act Individual Permit on May 12, 2021. The project was permitted for 114.51 acres of permanent wetland impacts with 136.7 acres of compensatory mitigation occurring at two mitigation sites and two mitigation banks. The Wisner – West Point project is in the early planning stages. Design has not begun, but for purposes of this analysis, widen north and widen south corridor-level alternatives have been developed. Preliminary wetland impacts with these alternatives range from 14 to 45 acres and waterway impacts range from 1,500 feet to 3,500 feet. Actual wetland and water resource impacts would be determined during final design and all impacts from the Wisner – West Point project would be permitted in compliance with Section 404 of the Clean Water Act and mitigated according to the permit.

Impacts of the Preferred Alternative

Farmland

The Project's Preferred Alternative would convert 324 acres of farmland into an expressway system. Approximately 216 acres of this farmland are listed as prime or unique. The NRCS-CPA-106 (Farmland Conversion Impact Rating for Corridor Type Projects) forms show that the highest possible "Total Points" that could be reached would only be 157 in Stanton County and 159 in Cuming County. The 160-point site assessment threshold for additional site consideration and protection would not be reached. The Preferred Alternative would not likely result in the conversion of surrounding farmland to nonagricultural use, beyond that needed for the Preferred Alternative. No coordination with NRCS is required. As discussed in the No Build Alternative, the two resurfacing projects may need to convert farmland to a non-agricultural use, but amounts are expected to be very minor, and the expanded cattle operation is consistent with agricultural land uses. Farmland impacts resulting from the Scribner–West Point project were evaluated under the USACE EIS and determined to be minor. The EIS was approved by both USACE and NRCS. Farmland impacts resulting from the Wisner–West Point North project would be similar in magnitude to the Scribner – West Point project and the Preferred Alternative as it would be constructed using the same 2+2 method as these other projects. Cumulative impacts on farmland from construction of the Preferred Alternative with the other projects are expected to be minor and beneficial because the projects would improve the transportation network and would benefit agriculture in the Study Area.

Community Impact Assessment and Transportation

Cumulative impacts are not anticipated between the Preferred Alternative and the two resurfacing projects, one past resurfacing project, and the expanded cattle operation. The two resurfacing projects would be completed by the time the Preferred Alternative would begin construction, and adverse cumulative impacts on the communities surrounding the projects, as well as the transportation facilities, would not occur. US-275 is currently experiencing additional heavy truck traffic from the expanded cattle operation, and the Preferred Alternative would increase capacity and reduce the traffic delay associated with heavy truck traffic.

With regard to the Preferred Alternative, the past two US-275 projects, and the Scribner–West Point and Wisner–West Point North projects, constructing US-275's three remaining segments would result in beneficial, long-term, cumulative impacts on the surrounding communities and transportation

network within northeast Nebraska. The two previous US-275 projects were constructed 15 to 20 years ago and the communities along those segments of the corridor are already experiencing cumulative benefits from those expansions. The US-275 corridor serves as a critical connection between major food producers, American-made steel, and the wider US economy. According to the 2017 Census of Agriculture, the counties adjacent to the corridor have some of the highest levels of cattle and grain production in the US. The US-275 improvements would provide more reliable regional access, thereby enhancing the economic, employment, service, healthcare, and educational connections for the surrounding region. Expanding and improving the corridor would better connect producers to Nebraska's freight and passenger transportation network. The projects would decrease transportation costs and improve access for shippers and residents of adjacent rural communities by reducing unexpected delays and supply chain bottlenecks and improving travel times. The 2015 Nebraska's Highway 275 4-Lane Expansion report estimated an increase of $1.2 billion in the State of Nebraska gross domestic production (the total value of goods and services) over 15 years from construction of the 47-mile segment of US-275 from Hooper to Norfolk (Goss and Associates 2015). Adverse impacts on the transportation network during construction of the other identified cumulative projects would be short-term and minor due to the 2+2 construction method that allows traffic to be maintained on existing traffic lanes. The minor short-term impacts would result from county road detours increasing driving time and distance to reach intended destinations, shifted traffic patterns that would be required to accommodate construction sites, lane closures, and closure/relocation of access points along the US-275 construction corridor.

The Preferred Alternative, in conjunction with the Scribner–West Point and Wisner–West Point North projects, has the potential to induce growth in the region. Improvements to all three remaining US-275 segments would accommodate increased vehicular volume and connections, likely resulting in expanded regional development, particularly in Norfolk. As discussed above, Norfolk is a regional hub for commercial and industrial development. The timeframe for this growth is not known, but it is likely beyond 10 years in the future. The City of Norfolk has an economic development plan in place to address new and existing business expansions within the area. For the three US-275 projects, it is anticipated that there could be an increase in development in the Norfolk area, but the projects are unlikely to increase development along most of the corridor. This is due to the low population density, the lack of centers of employment, and the agricultural nature of the Study Area. As such, development along the corridor would not be considered induced as the projects' purposes are connectivity and not development.

Wetlands and Water Resources

Cumulative impacts would not occur between the Preferred Alternative and the three resurfacing projects because these other projects would have minimal impacts on wetlands and water resources. Cumulative impacts would also not occur in conjunction with the two past roadway expansion projects (Norfolk East and Hooper East and West) and past expanded cattle operation because these projects were constructed more than a decade before the Preferred Alternative and the wetland and water resource impacts of these past projects were mitigated at that time in accordance with local, state, and federal laws. Additionally, based on the time that has passed, mitigation for those projects would be fully established and functioning so any past impact would have been restored.

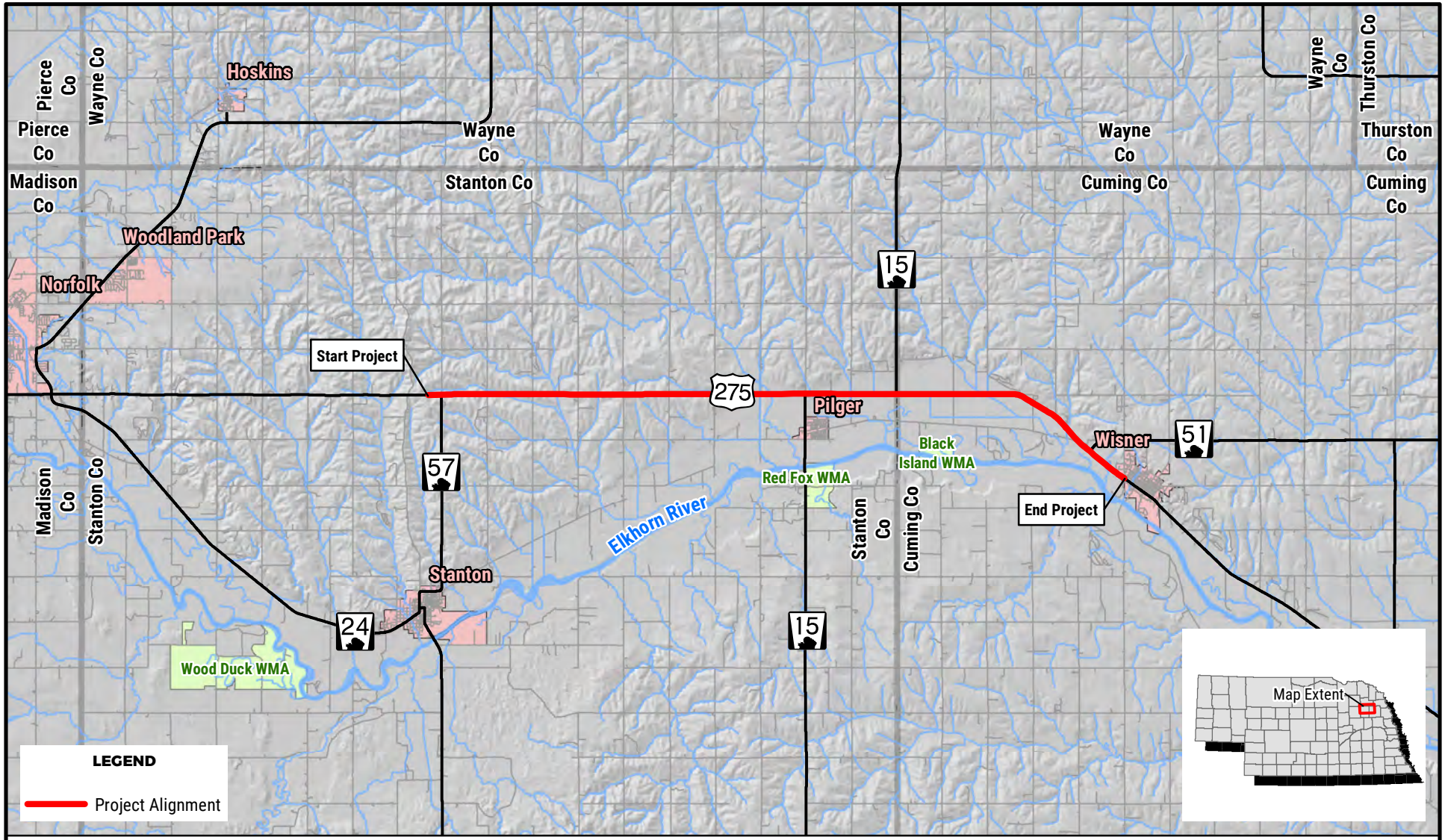
The Preferred Alternative is expected to impact approximately 13.15 acres of wetlands and 0.61 acre of waterway. The impacted wetlands are predominantly located in roadside ditches and are dominated by non-native species. The affected waterways are typically incised and of low quality based on the Nebraska Stream Condition Assessment (NeSCAP). As discussed in the No Build Alternative, the Scribner–West Point project had 114.51 acres of wetland impact. Based on a preliminary analysis, wetland impacts from the Wisner – West Point project, are expected to be between 14 and 45 acres and waterway impacts between 1,500 feet and 3,500 feet. All wetland and

water resources impacts from the Wisner – West Point project would be permitted in compliance with Section 404 of the Clean Water Act and mitigated according to the permit. Additionally, any project utilizing federal transportation funds must adhere to the net gain of wetland policy (23 CFR 777.11(g)) where there would be no net loss of wetlands across the program in a given year.

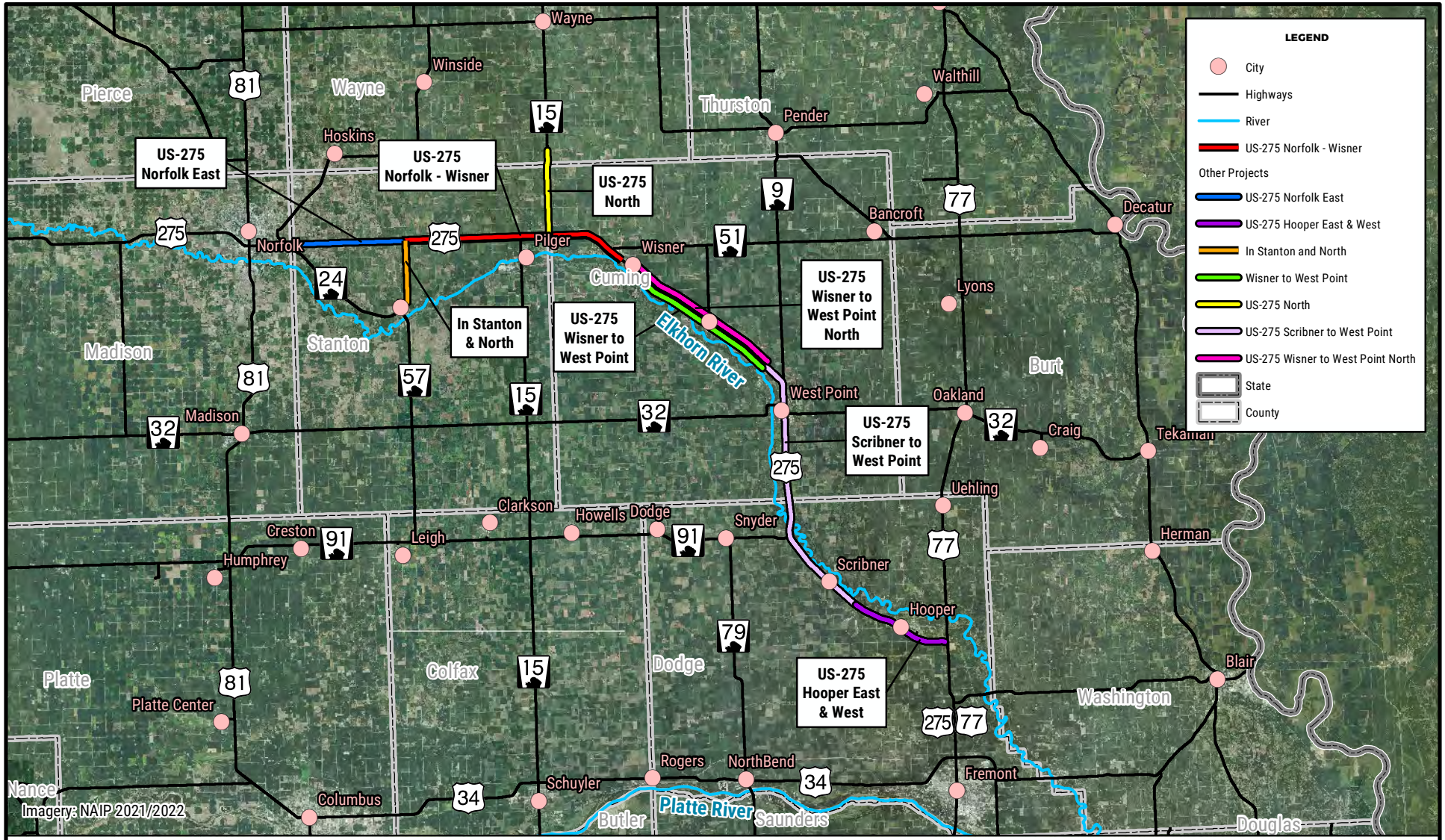
The Preferred Alternative would ultimately have minor to moderate beneficial cumulative impacts on wetlands and water resources with consideration of resource quality and permitting and mitigation requirements for the Scribner–West Point and Wisner–West Point North projects. The 114.51 acres of wetland impact resulting from the Scribner – West Point project were mitigated via 136.7 acres of new wetlands at two mitigation banks and two mitigation sites. The two mitigation sites are located within 1 mile of the Elkhorn River and combined provide over 100 acres of high-quality wetlands and habitat compared to the impacted wetlands, many of which were narrow, low-quality ditch wetlands. Stream channel impacts with the Scribner - West Point project did not require mitigation. The Preferred Alternative and Wisner – West Point North projects would also create new wetlands at a greater than 1:1 ratio. The Preferred Alternative is anticipated to be mitigated at a mitigation site west of Wisner, adjacent to the Elkhorn River, creating a large area of high-quality wetlands and habitat in the Elkhorn River floodplain, compared to the low-quality ditch wetlands impacted by the Preferred Alternative. Additionally, stream impacts associated with the Preferred Alternative would be mitigated in accordance with the Nebraska Stream Condition Assessment Procedure (NeSCAP) and the Section 404 permit. Impacts resulting from the Wisner – West Point North project would be mitigated at an appropriate wetland mitigation bank or wetland and/or stream mitigation site. All sites constructed for mitigation are or would be located within the appropriate watershed and planted with an appropriate wetland seed mix. Due to this net increase in wetlands as well as the increased quality of wetlands and habitat developed in conjunction with the projects, cumulative impacts on wetlands and water resources are expected to be minor to moderate and beneficial.

Conclusions

The Preferred Alternative would not result in long-term adverse cumulative impacts to farmland or wetlands and water resources in consideration of past, present, or reasonably foreseeable actions. The Preferred Alternative would result in long-term beneficial cumulative impacts to the communities and transportation network surrounding the US-275 corridor. Each project would improve the condition and reliability of the transportation network and increase connectivity to essential services within the region, resulting in cumulative beneficial impact. Temporary impacts associated with Preferred Alternative construction are expected but would not result in cumulative impacts with the other projects as they occur in different timeframes and locations.



PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_00_PROJECT_LOCATION_STUDY_AREA_CORRIDORS\PROJECT_LOCATION\MAP_8X11_FIG_1_PROJECT_LOCATIONV2.MXD - USER: CMODRCIN - DATE: 11/18/2022



PATH: Z:\PROJECTS\NDOT\10165712_US275_NORFOLK_WISNER\MAP_DOCS\DRAFT\4_25_CUMULATIVE\MAP_8X11_CUMULATIVE_IMPACTS.MXD - USER: CMODRCIN - DATE: 1/30/2023

Memo

Date:	Tuesday, March 14, 2023		
Project:	NDOT US-275 Norfolk-Wisner Project No. 275-6(1052) CN 32319	HDR Project No.	10165712
To:	NDOT		
From:	HDR		
Subject:	Responses to USACE Questions on Logical Termini and Independent Utility		

The following memo is provided in response to January 2023 concerns expressed by USACE NRO regarding logical termini and independent utility, as they relate to the NDOT projects on US-275 between Norfolk and Scribner, Nebraska (Norfolk to Wisner, Wisner to West Point, and West Point to Scribner). This memo documents that each of these projects has logical termini and independent utility.

Logical Termini

Norfolk to Wisner – the Norfolk to Wisner project has a straight-forward definition of logical termini as connecting two segments of 4-lane roadway between the existing four lanes of US-275 at N-57 and the four-lane segment within Wisner. An Environmental Assessment and preliminary design are currently being developed for this segment and construction funding is included in the STIP.

West Point to Scribner – the US-275 West Point to Scribner Expressway EIS section on logical termini (1.1.2 of Volume I) relies on NDOT's establishment of the project's logical termini and summarizes NDOT's rationale. The southern terminus was noted as connecting to the existing 4-lane highway with no additional discussion or detail. However, there was substantial discussion to justify the northern terminus (west of N-9) since that terminus did not connect to a four-lane section and was not an obvious terminus (such as connecting two segments of four-lane roadway). The justification included discussion of rationale for including N-9 with the project and crossover geometry, including undesirable situations such as on a superelevated curve, in proximity to a bridge with guardrail, proximity to intersections, etc. This segment is currently under construction.

Wisner to West Point – the Wisner to West Point project also has straight-forward logical termini as connecting two segments of 4-lane roadway between the existing four lanes of US-275 in Wisner and the soon to be completed four-lane roadway west of N-9 (currently under construction with the West Point to Scribner Expressway). This segment is currently funded for design, but design has not yet started. Construction funding is not currently included in the STIP.

The methodology contained in FHWA's paper on Development of Logical Termini (Environmental Review Toolkit (dot.gov) supports the development of the remaining two-lane US-275 corridor as three separate segments with logical termini based on funding availability:

"If there is a demonstrated need for improvements in the entire corridor from point A to point C, there may still be no funding available and no likelihood of improving the entire corridor in the near future. In this case, the project from point A to point B could still be implemented…" This statement includes the caveat that the following conditions are met, all of which are met by the US-275 projects.

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- Project serves an identified need and stands on its own from point A to point B
- Project would not force immediate improvements on the remainder of the facility from point B to point C
- Project does not restrict alternatives on the remaining segment to the point where environmental requirements would be difficult or impossible to satisfy.

When the decision to move forward with three separate projects was made back in 2018, funding was only available for the Scribner to West Point segment. Since then, NDOT has identified funding for the Norfolk to Wisner segment and has been developing NEPA documentation for that stand alone project. Construction funding for the remaining segment, Wisner to West Point is not programmed and the timeframe for construction is uncertain and dependent on many factors related to NDOT's overall STIP.

Independent Utility

Elements of a project's independent utility are its ability to meet the project purpose and need and be able to stand on its own if adjacent projects are not constructed. The Norfolk to Wisner project purpose is to advance the Norfolk to Fremont expressway and provide increased connectivity to northeast Nebraska. The project would provide function and value (via additional miles of divided four-lane expressway) and would satisfy its FHWA-defined purpose. The US-275 Scribner to West Point purpose and need, defined as "USACE Overall Project Purpose" in the US-275 West Point to Scribner Expressway EIS (EIS - US 275 (army.mil)), is as follows "The overall Project purpose, as defined by USACE, is to safely and efficiently improve regional connectivity between West Point and Scribner for existing and future traffic volumes…". The project is currently under construction and would fulfill its purpose and need.

Additionally, the independent utility of the projects within the US-275 corridor have a noteworthy difference when compared with the US-30 Schuyler to Fremont expressway corridor, for which USACE evaluated environmental impacts for the entire corridor and authorized construction of the three segments via a single Section 404 permit with two amendments. US-30 involved new alignment and project segmentation in the middle of an undeveloped field (well removed from the existing highway corridor). That is, the easternmost US-30 segments were wholly dependent upon one another and did not have independent utility. That is not the case along US-275. Both the Norfolk to Wisner project and Scribner to West Point project are located approximately 12 miles apart from each other and would be constructed years apart, construction beginning in 2025 for Norfolk to Wisner and construction finishing in 2024 for Scribner to West Point. These two projects can be considered independent from each other. With regards to the Wisner to West Point project, the two previous US-275 projects would be constructed and serve their intended purpose and needs regardless of whether the Wisner to West Point Expressway segment was ever constructed.

Conclusion

As the lead federal agency for NEPA, USACE determined that the West Point to Scribner project has logical termini and independent utility. Similarly, FHWA, as the lead federal agency for NEPA, determined that the Norfolk to Wisner project has logical termini and independent utility. During the initial multi-agency coordination meeting in 2019 and the three subsequent pre-application meetings spanning 2019-2021, neither USACE nor any other agencies have expressed concerns about the logical termini for the Norfolk to Wisner project. Additionally, all three segments of would have independent utility from each other due to funding, construction timing, and location.

Appendix R

Agency Involvement

Meeting Minutes

Project:	NDOT US-275 Norfolk-Wisner Project No. 275-6(1052) CN 32319
Subject:	Agency Coordination Meeting
Date:	Wednesday, July 31, 2019
Location:	NDOT 1500 Rm 103

Attendees:	
Brooke Stansberry, USFWS	Frank Albrecht, NDOT
Phil Rezac, USACE	Jon Soper, NDOT
Marty Link, NDEE	Will Packard, NDOT
Dane Pauley, NDEE	Jen Huxoll, NDOT
Ryan Chapman, NDEE	Jon Barber, NDOT
Shane Tucker, UNSM	Dillon Dittmer, NDOT
Melissa Marinovich, NGPC	Stacy Stupka, NDOT
John Risseto, NeSHPO	Kyle Keller, NDOT
Scott Stapp, FHWA	Jason Jurgens, NDOT
Melissa Maiefski, FHWA	Carmen Modrcin, HDR
	Lisa Richardson, HDR

1. **Introductions**
   - NGPC: Carey Grell will no longer be the point of contact for the project. Melissa Marinovich will be the contact going forward.

2. **Presentation**
   - Project Description
     - NeSHPO: What is the total width of the highway?
       - HDR: Shoulder to shoulder would be approximately 118 feet [this is a correction – 108 feet was stated at the meeting]. The total width of ROW will also vary based on the amount of cut and fill needed in the hilly areas.
   - Purpose & Need
   - Resources
     - FHWA: What eligibility criteria would the farmstead east of Pilger fall under?
       - NDOT: The site would be eligible under criterion A (not eligible for preservation in place).
   - Alternatives
   - Preliminary Corridor Impacts
   - Schedule
   - Future Agency Involvement

3. **Comments/Questions**

- NGPC: There are three species currently being evaluated for listing at the state level that are in the project vicinity: Flathead Chub, Plains Minnow, and Western Silvery Minnow. NGPC will be seeking input from other state agencies later this year. Conservation conditions are being developed and should look similar to those of the Dace.
- EPA: The next interagency meeting is October 1st. Will NDOT need any additional input from the agencies prior to the meeting like on purpose and need?
    - NDOT: Since this project will not be using the 404/NEPA Merge, the next touch point for the agencies will be when the DEA is published.
    - EPA: If that's the case, we would like to be involved with the 404 Pre-Application Process.
    - USFWS and NGPC: We would like to be involved with that process as well.
    - USACE: We think it would beneficial to have the NDEE as part of that process too.
- USACE: The public involvement meeting is set for September 10th?
    - HDR: Correct.
- USACE: We'd like to make sure that 404(b)(1) is added as an agenda topic for the pre-application meeting when it's scheduled.
    - HDR: Noted.
- EPA: Matt Pillard (HDR) helped develop a flowchart that laid out the individual permit pre-application process that we think would be helpful to follow.
    - NDOT/HDR: We will look into that flowchart and send out to this group when it's available [flowchart sent to attendees on 7/31/19].
- NDOT requested additional comments be sent to Frank Albrecht by 8/23/19.

Action Items

Who	Task	Date Assigned	Date Completed
NDOT	Coordinate with EPA about the 404 Pre-Application flowchart that was discussed and send it out to the group.	7/31/2019	
NDOT	Schedule pre-application meeting with USACE and other interested agencies.	7/31/19	

Meeting Attendees

Project: NDOT US-275 Norfolk-Wisner
Project No. 275-6(1052)
CN 32319

Subject: Agency Coordination Meeting

Date: Wednesday, July 31, 2019

Location: NDOT 1500 Rm 103

Name	Representing	Contact Info
Brooke Stansberry	USFWS	Brooke_Stansberry@fws.gov
John Rissetto	NeSHPO	John.Rissetto@nebraska.gov
Phil Rezac	USACE	phil.m.rezac@usace.army.mil
Dane Pauley	NDEE	dane.pauley@nebraska.gov
Marty Link	NDEE	marty.link@nebraska.gov
Ryan Chapman	NDEE	ryan.chapman@nebraska.gov
Shane Tucker	UNSM	stucker3@unl.edu
Frank Albrecht	NDOT	Frank.Albrecht@nebraska.gov
Carmen Modrcin	HDR	Carmen.modrcin@hdrinc.com
Melissa Marinovich	NRPC	melissa.marinovich@nebraska.gov
Scott Stapp	FHWA	scott.stapp@dot.gov
Melissa Maiefski	FHWA	Melissa.maiefski@dot.gov
Dillon Dittmer	NDOT	dillon.dittmer@nebraska.gov
Jon Soper	NDOT	jon.soper@nebraska.gov
Stacy Stupka	NDOT	Stacy.Stupka@nebraska.gov

Meeting Attendees

Project: NDOT US-275 Norfolk-Wisner
Project No. 275-6(1052)
CN 32319

Subject: Agency Coordination Meeting

Date: Wednesday, July 31, 2019

Location: NDOT 1500 Rm 103

Name	Representing	Contact Info
Will Packard	NDOT	willpackard@nebraska.gov
Kyle Keller	NDOT	Kyle.Keller@nebraska.gov
Jen Huxoll	NDOT	Jennifer.Huxoll@Nebraska.gov
JASON JURGEN	NDOT	Jason.jurgens@nebraska.gov
Jon Barber	NDOT	Jon.Barber@Nebraska.gov

DEPARTMENT OF THE ARMY
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OMAHA, NEBRASKA 68138-3635

http://www.nwo.usace.army.mil/missions/regulatoryprogram/nebraska.aspx

August 23, 2019

Mr. Jon Barber
Nebraska Department of Transportation
1500 Highway 2
Lincoln, Nebraska 68509

RE: 2019-00187-WEH / US-275, Norfolk - Wisner, S-275-6(1052), CN 32319 – USACE response to July 31st request for comments

Dear Mr. Barber:

This correspondence is regarding the Nebraska Department of Transportation's (NDOT) request for comments per your letter provided at the July 31, 2019, agency meeting for the US-275, Norfolk - Wisner project. The NDOT is the applicant and proposes to undertake this highway expansion project. At this time, it is unclear from the letter provided whether Federal funds are being used to construct the project and who is serving as the Lead Federal Agency; please confirm. Additionally, a brief response to your request is provided below.

The U.S. Army Corps of Engineers (USACE) has the responsibility to administer federal laws that regulate certain activities in the waters of the U.S. The authority applicable to this responsibility is Section 404 of the Clean Water Act (33 U.S.C. 1344), which prohibits the discharge of dredged or fill material into lakes, streams, or wetlands without authorization in the form of a Department of the Army permit, and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

At the July 31, 2019 meeting, information presented identified that the project may potentially impact approximately 20 to 25 acres of wetlands and 4,700 to 6,800 linear feet of stream channel. Based on this preliminary information, this project would be evaluated by the USACE as an Individual Permit due to the level of impacts occurring to aquatic resources. Compliance with the 404(b)(1) Guidelines (40 CFR 230) will be required. The level of aquatic resource impacts for this project are larger compared to the majority of projects occurring within the State of Nebraska; therefore, our review and informational needs to address the 404(b)(1) Guidelines will be commensurate with the level of impacts proposed for the project. Additionally, there may be other alternatives available that do not necessitate the project siting in special aquatic sites, or that avoid and minimize impacts to special aquatic sites located along the project through the use of alignment shifts, bridging, etc. A wetland delineation has not been provided to the USACE for review at this time.

It was identified at the meeting that Federal Highway Administration (FHWA) proposes to evaluate the project as an Environmental Assessment (EA) and there will be no NEPA/404 Merge process utilized. The USACE would encourage the use of a formal or informal NEPA/404 Merge process as outlined in the 2015 Red Book "Synchronizing Environmental Reviews for Transportation and Other Infrastructure Projects." Procedures for merging NEPA and 404 processes based on best management practices have been developed and are available in the 2015 Red Book.

Although the CEQ 1500 NEPA regulations do not explicitly discuss Cooperating Agencies in the context of EAs, a Memorandum to the Heads of Federal Agencies titled, "Cooperating Agencies in Implementing the Procedural Requirements of the National Environmental Policy Act," dated January 2002, indicates that there are scenarios where it is appropriate to have Cooperating Agencies designated on an EA, such as when trying to integrate compliance with other environmental laws (like Section 404). Based on the level of aquatic resource impacts for this project, the USACE believes that acting as a Cooperating Agency and lending expertise for resources under our jurisdiction to assist the Lead Federal Agency prepare an EA, is appropriate. We realize that although designation of Cooperating Agencies on an EA is not required under NEPA, for projects with a large amounts of impacts to aquatic resources such as this, our designation and involvement would be appropriate.

The USACE believes that serving as a Cooperating Agency would be valuable to ensure necessary information is provided in order to comply with the 404(b)(1) Guidelines and ensure that impacts to aquatic resources are adequately addressed within the Lead Federal Agency's EA; therefore, if the FHWA is serving as the Lead Federal Agency, the USACE respectfully requests designation as Cooperating Agency. Should our request be declined, then the USACE will conduct our Section 404(b)(1) process separately and request appropriate information to make a permit decision.

Should you have any questions, please contact me at the above address, by phone at (402) 896-0896, or by email at phil.m.rezac@usace.army.mil and refer to file number **2019-00187-WEH**.

Sincerely,

Phil M. Rezac
Regulatory Project Manager

cc:
EPA (Chamberlain)
EPA (Tilley)
FHWA (Maiefski)
NDEE (Pauley)
NDOT (Albrecht)
NGPC (Marinovich)
USFWS (Stansberry)

From:	Albrecht, Frank
To:	Richardson, Lisa (Omaha); Modrcin, Carmen
Subject:	FW: [EXTERNAL] Interagency Meeting on July 31st for US-275 Project near Wisner
Date:	Thursday, September 12, 2019 1:37:17 PM

From: Stansberry, Brooke <brooke_stansberry@fws.gov>
Sent: Friday, August 23, 2019 5:09 PM
To: Albrecht, Frank <frank.albrecht@nebraska.gov>
Cc: Maiefski, Melissa <melissa.maiefski@dot.gov>; scott.stapp@dot.gov; Rezac, Phil M CIV USARMY CENWO (US) <Phil.M.Rezac@usace.army.mil>; chamberlain.eliodora@epamail.epa.gov; Marinovich, Melissa <melissa.marinovich@nebraska.gov>; Tilley, Amber <Tilley.Amber@epa.gov>; Tucker, Shane <stucker3@unl.edu>; Rissetto, John <John.Rissetto@nebraska.gov>; Pauley, Dane <dane.pauley@nebraska.gov>; Barber, Jon <Jon.Barber@nebraska.gov>; Jurgens, Jason <Jason.Jurgens@nebraska.gov>; Dittmer, Dillon <Dillon.Dittmer@nebraska.gov>; Jezierski, Caroline <caroline.jezierski@nebraska.gov>; Soper, Jon <jon.soper@nebraska.gov>; Krajicek, Katie <katie.krajicek@nebraska.gov>; Stupka, Stacy <stacy.stupka@nebraska.gov>; Packard, Will <Will.Packard@nebraska.gov>; Liebig, Kyle <kyle.liebig@nebraska.gov>
Subject: Re: [EXTERNAL] Interagency Meeting on July 31st for US-275 Project near Wisner

Frank,

The U.S. Fish and Wildlife Service (Service) has received a request from the Nebraska Department of Transportation (NDOT), dated July 31, 2019, to provide some early NEPA coordination comments on the proposed Norfolk to Wisner project (S-275-6(1052), 32319. At this time, the Service is still reviewing the Biological Assessment that the Federal Highway Administration (FHWA) and NDOT also submitted to our agency on July 30, 2019, as part of our Programmatic Agreement.

On July 31, 2019, FHWA and NDOT also held an Agency Coordination Meeting. As we understand it, this project proposes to expand the existing two-lane highway to a four-lane expressway by constructing a new, parallel, two-lane roadway on one side of the existing US-275. FHWA/NDOT also discussed with the agencies that FHWA/NDOT proposed to evaluate the Norfolk to Wisner project, as an Environmental Assessment but there will be no NEPA/404 Merger Process utilized for coordination with the agencies. We are providing some early input primarily on future NEPA coordination below.

With the anticipated 404 impacts and the potential impacts to historic properties that were presented at our July 31 meeting, the Service would recommend that, we utilize the “Process for Section 404 Permitting” as a way to start further NEPA coordination amongst the agencies. This Process was what the Environmental Protection Agency referenced at the meeting and NDOT later forwarded onto the agencies (below). This Process could also be our starting place to work from together for developing a future NEPA/Merge coordination process.

In addition, below are example Merger Processes that fellow Service Transportation Liaisons have shared with me that you may find useful to see how these groups developed more defined roles and responsibilities. These Merger Processes also used FHWA’s updated 2015 Redbook to synchronize their federal/state resource agency procedures together for infrastructure project review/coordination (https://www.environment.fhwa.dot.gov/pubs_resources_tools/publications/RedBook_2015.aspx). Many of our federal agencies were also involved in the development of the 2015 Redbook.

Colorado:
https://www.codot.gov/programs/environmental/wetlands/2019-final-merger-agreement

Illinois:
https://www.fhwa.dot.gov/ildiv/docs/nepa-404_merger_process_information.pdf?20180731

North Carolina:
https://connect.ncdot.gov/resources/Environmental/Pages/Merger-Process-Guide.aspx

The Service appreciates the opportunity to provide some preliminary comments on this project, and we look forward to continued NEPA coordination. Should you have any questions regarding these comments, please contact me at any time.

Sincerely,
Brooke

Brooke Stansberry
Fish and Wildlife Biologist
Nebraska Field Office
U.S. Fish and Wildlife Service
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Wood River, Nebraska 68883
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1500 Highway 2
Lincoln, Nebraska 68509

"Like the resource it seeks to protect, wildlife conservation must be dynamic, changing as conditions change, seeking always to become more effective."

--Rachel Carson

On Wed, Jul 31, 2019 at 3:54 PM Albrecht, Frank <frank.albrecht@nebraska.gov> wrote:

> Good Afternoon,
>
> Thank you for attending the US 275 (Norfolk to Wisner) meeting today. Attached you will find the sign-in sheet and the 404 Pre-Application Flowchart that Eliodora talked about at the meeting.
>
> Feel free to contact me if you have any questions or need any additional information on the project.
>
> Thanks again,
> Frank
>
> **Frank Albrecht**
> *Environmental Project Manager*
> Project Development Division
>
> **Nebraska Department of Transportation**
> 1500 Highway 2
> Lincoln, Nebraska 68502
>
> OFFICE 402-479-4413
> Frank.Albrecht@nebraska.gov

Meeting Minutes

Project:	NDOT Norfolk-Wisner Project No. S-275-6(1052) Control Number 32319
Subject:	Section 404 Pre-Application Meeting
Date:	Wednesday, November 20, 2019
Location:	NDOT, Room 103, 1500 Highway 2, Lincoln, Nebraska 68502
Attendees:	See sign-in sheet

1. **Introductions**

2. **USACE Reference No: 2019-00187-WEH**

3. **Project Overview**
    - USACE: Who will be the lead federal agency for the project and what will the USACE role be?
        - FHWA will be the lead federal agency and the USACE role will be determined when the level of NEPA documentation (CE v EA) is determined.
        - USACE requested to be a cooperating agency after the agency scoping meeting in July. NDOT clarified that this would either be a CE or an EA and that by regulation, there are no cooperating or coordinating agencies as part of these NEPA documents. USACE requested that NDOT coordinate with them as an informal cooperating agency.

4. **Wetland Delineation**
    - No agency questions or comments.

5. **Preliminary Alternatives & Impacts**
    - USACE:
        - The preliminary impacts indicate that this will be an Individual Permit and will need to follow the Section 404(b)(1) process. USACE noted that the 404(b)(1) guidelines require USACE coordination on all steps (P&N, Alternatives, Preferred Alternative), similar to the concurrence points for the EIS participating/cooperating agency process.
        - Expressed concern that there are currently too few alternatives for the IP process and noted the need to minimize impacts. USACE suggested additional alternatives shifting the alignment as well as possibly spanning aquatic resources.

- EPA:
    - If an IP is anticipated, the EPA strongly recommends following the IP pre-application process. The process is laid out in the flow chart that was discussed during the agency scoping meeting in July.
    - As the IP process progresses, EPA would like to be involved through face-to-face meetings or conference calls.

6. Mitigation

- NGPC: Were the mitigation sites sizes calculated pre- or post-flood?
    - The mitigation acreages were based on parcel data pre-2019 flooding.
- USACE:
    - Before the USACE can comment on possible mitigation sites, avoidance and minimization need to be thoroughly evaluated. USACE noted that NDOT needs to present and discuss more on avoidance and minimization.
    - USACE noted that restoration should be the 1st mitigation option considered.
    - If individual stream impacts exceed 100 linear feet of channel loss or 300 feet of channel impact, stream mitigation may be required. This would include a NeSCAP analysis.
- NGPC:
    - It is the NGPC's preference that the mitigation site for the project be one large contiguous site rather than many smaller sites.
    - NDOT noted that all presented sites fall within the Elkhorn River Biologically Unique Landscape.
    - If possible, NGPC would like to see meanders added into the longitudinal channel impacts near the east junction of N-15. The area is channelized now and adding meanders would help with species habitat.
    - NGPC inquired about NDOT's interest in turning one of the potential mitigation sites into a bank. NDOT would be interested in this approach specifically the Reeson or Stalp sites.
- USFWS:
    - USFWS recommends that NDOT match the size of the mitigation site to the impact rather than having two or more smaller sites.

7. Schedule/Next Steps

8. Comments

- NGPC:
    - As NGPC discussed at the July meeting, NGPC has been evaluating adding four fish species to the state threatened list. At this time, only the sickle fin chub will be added to the state threatened species list in January. The river otter will also be delisted at that time.

    - The Project is in the range for the Northern Long-Eared Bat and River Otter.
- EPA: EPA offered to review any NEPA concerns as the NEPA documentation is being developed if needed.

Action Items

Who	Task
NDOT/HDR	Review 2019 aerial imagery to determine if the proposed mitigation sites were altered after the 2019 flood.
NDOT/HDR	Perform a NeSCAP review on the longitudinal channel impact near the east junction N-15 intersection.

Sign-In Sheet

Project: NDOT Norfolk-Wisner
Project No. S-275-6(1052)
CN 32319

Subject: Section 404 Pre-Application Meeting

Date: Wednesday, November 20, 2019

Location: NDOT, Room 103, 1500 Highway 2, Lincoln, Nebraska 68502

Attendee	Organization	Phone	Email
Dillon Dittmer	NDOT	(402) 479-4411	dillon.dittmer@nebraska.gov
Katie Krajicek	NDOT	402-479-3812	katie.krajicek@nebraska.gov
Shannon Sjolie	NGPC	4024715423	shannon.sjolie@nebr.gov
Phil Rezac	USACE	402-896-0896	phil.m.rezac@usace.army.mil
Frank Albrecht	NDOT	402-479-4413	Frank.albrecht@nebraska.gov
Dave Pauley	NDEE	402-471-2875	dave.pauley@nebraska.gov
Laura Johnson	NDEE	402-471-8389	laura.r.johnson@nebraska.gov
Quinn Daugaard	HDR	402-399-1041	Quinn.Daugaard@hdrinc.com
Jon Barfuss	NDOT	402-479-4412	Jon.Barfuss@nebraska.gov
Scott Stapp	FHWA	402-742-8465	scott.stapp@dot.gov
Kyle Keller	NDOT	402-479-3674	Kyle.Keller@nebraska.gov
Stacy Stupka	NDOT	402-479-3879	Stacy.Stupka@nebraska.gov
Melissa Marinovich	NGPC	402-471-5422	melissa.marinovich@nebraska.gov
Brooke Stansberry	USFWS	308-379-8554	Brooke_Stansberry@fws.gov
CARMEN MODRCIN	HDR		
LISA RICHARDSON	HDR		
Eleodora Chamberlin	EPA		
Amber Tilley	EPA		

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA DIVISION
100 Centennial Mall North, Room 220
Lincoln, NE, 68508
402-742-8460
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Nebraska.FHWA@dot.gov

January 28, 2020

Mr. John Moeschen
U.S. Army Corps of Engineers
Nebraska Regulatory Office – Wehrspann
8901 South 154th St., Ste. 1
Omaha, NE 68138-3621

Dear Mr. Moeschen:

Project S-275-6(1052), CN 32319
US-275 Norfolk – Wisner
Stanton and Cuming Counties, Nebraska

The Nebraska Department of Transportation (NDOT) is proposing to improve approximately 15.5 miles of United States Highway 275 (US-275), located in Stanton and Cuming Counties (the Project). The Project begins approximately 0.30 mile east of the junction of US-275 and Nebraska Highway 57 (N-57) where the existing four-lane roadway ends. It extends east and south to approximately the west end of Wisner, Nebraska, where it ties into the existing US-275 four-lane roadway.

NDOT is considering the use of federal funds for the project and therefore, the Federal Highway Administration (FHWA) is acting as the lead federal agency for the National Environmental Policy Act (NEPA) review.

Currently, FHWA and NDOT are proposing an Environmental Assessment (EA) to evaluate the natural, social and economic impacts of the proposed action. An initial agency coordination meeting was held to discuss the proposed action on July 31, 2019, with the U.S. Army Corps of Engineers (USACE), the Fish and Wildlife Service (USFWS), the Environmental Protection Agency (EPA), the Nebraska Game and Parks Commission (NGPC), the Nebraska Department of Energy and Environment (NDEE), and the State Historic Preservation Office (SHPO) in attendance.

During the meeting, a handful of attendees suggested that FHWA and NDOT coordinate the environmental review and project development process utilizing a coordination plan employed by the USACE when the USACE is the lead federal agency. FHWA and NDOT received a copy of this approach, and the USACE provided additional information regarding the approach via email on 8/1/19. FHWA and NDOT reviewed this suggestion and have decided to forego its use. After consideration, FHWA and NDOT were concerned the suggested approach would be less efficient than the existing FHWA and NDOT protocols used for engaging resource agencies for resources under their jurisdiction.

In a letter dated August 23, 2019, the U.S. Army Corps of Engineers (USACE) requested

Cooperating Agency status for this proposed action. On October 6, 2019, during an NDOT interagency meeting, an NDOT representative noted there would be no cooperating agencies for the project as the EA class of action does not require designation of cooperating and participating agencies.

FHWA and NDOT recognize the USACE's future permitting authority for the proposed project, and acknowledge the benefits of coordination during NEPA to synchronize the environmental review and permitting process to the extent feasible. Therefore, FHWA and NDOT will provide the following materials to your agency for review and comment during the EA process:

- Draft Purpose and Need statement. The draft purpose and need statement will comply with FHWA requirements and guidelines. The draft will be provided to the USACE prior to the release of the draft EA. FHWA respectfully requests comments be provided within three weeks of receipt to be considered in the development of the EA.
- Draft Alternatives analysis. FHWA and NDOT will coordinate with the USACE to obtain early input on the alternatives selection process, and in addition, the draft alternatives analysis will be provided to the USACE for review and comment, either prior to or concurrent with the public release of the draft EA. FHWA and NDOT will request that any comments be provided within three weeks of USACE receipt of material.
- Wetland impact assessment methodology: NDOT and FHWA will coordinate with the USACE through an early pre-application meeting to discuss specific aquatic resource concerns of the USACE, including an opportunity for the USACE to provide input regarding aquatic resource discussions in the draft EA. However, it is important to note that precise wetland impact acreages may not be known prior to submittal of a 404 permit to the USACE.
- The draft EA will be provided to the USACE for review and comment concurrently with the public release of the document. If scheduling allows, NDOT and FHWA may release the document to the USACE for review and comment prior to the public release (which occurs as part of the public hearing phase). If the draft EA is released to the USACE early, we would respectfully request that any USACE comments be provided within three weeks, to provide our agencies the opportunity to consider comments and possibly adjust the draft EA prior to public release.
- Final Environmental Assessment (FEA). Post project hearing, NDOT, in cooperation with FHWA, will provide the USACE copies of any public or agency feedback received and draft responses pertaining to resources under the USACE's jurisdiction for a one week review. The FEA will be prepared in an errata format, which is standard for the federal-aid highway program in Nebraska. FHWA will inform the USACE of our NEPA decision once it has been made.

If feasible and practical, FHWA and NDOT will submit an Individual Section 404 permit application for this action (if needed) prior to the issuance of FHWA's decision document. For this to occur, NDOT will advance the design near and within jurisdictional waters. Advancing design in these areas will provide more accurate permitting information, including determination

of the LEDPA, during NEPA without predetermining the NEPA decision, thus expediting the permit application. FHWA and NDOT will discuss this approach further with the USACE in early 2020.

FHWA and NDOT will be in contact with you regarding future meetings and the project schedule. If the USACE objects to the plan outlined above, please inform me at Scott.Stapp@dot.gov or Melissa Maiefski at Melissa.maiefski@dot.gov. Should you have any questions regarding the project, please feel free to contact Frank Albrecht at (402)479-4413 or frank.albrecht@nebraska.gov.

Sincerely yours,

Scott H. Stapp
Environmental Protection Specialist

Meeting Minutes

Project:	NDOT Norfolk-Wisner Project No. S-275-6(1052) CN 32319
Subject:	USACE Reference # 2019-00187; Project Alternatives and Impacts
Date:	Thursday, February 27, 2020
Location:	NDOT, Room 139A (Auditorium), 1500 Highway 2, Lincoln, NE

The meeting presentation attached to these notes contains more detail on the information presented.

1. **Introductions**
   - See attached attendee list.

2. **Agency Roles & Responsibilities (FHWA)**
   - FHWA will be the lead Federal Agency for this project since it will use federal funds.
   - FHWA has ended the NEPA Merge process; however, FHWA and NDOT are seeking agency input for the project.
   - Since this is an EA, formal Cooperating Agencies will not be identified.
   - FHWA noted the importance of keeping the project on schedule.
     - There were no agency questions or comments about roles and responsibilities

3. **Purpose of the Meeting (FHWA)**
   - The purpose of the meeting is to provide an update to the agencies on the status of the project and the information gathered to date.
   - Additionally, meeting is intended to align agency needs to the greatest extent possible while keeping the project on schedule.

4. **Project Purpose & Need**
   - HDR provided an overview of the Project Location and Purpose and Need that has been presented at previous agency meetings.
     - There were no agency comments or concerns expressed about the P&N.

5. **Alternative Selection Process**
   - HDR summarized the Alternative Selection Process being used for this project.
     - There were no agency comments or concerns noted about the process.
   - Alternatives
     - HDR presented the alternatives considered to date and the rationale for alternatives to carry forward.
     - USACE asked for clarification of the On-Structure (spanning water resources) alternative
       - The intent is to use larger structures to span resources to avoid them. An elevated roadway on bridge (like the Dodge Expressway).

- USACE asked for the location of the off-alignment alternatives that were evaluated
    - NDOT noted that a specific alignment has not been developed
    - FHWA noted that an off-alignment alternative does not meet the Purpose and Need, the intent is to use existing infrastructure and the off-alignment alternative doesn't meet that.
- USACE requested additional information on why the alternatives were screened out. USACE requested narrative descriptions and qualitative/quantitative data
- EPA asked if a more detailed explanation of the alternatives analysis will be available
    - Yes, the DEA will include a more detailed discussion.
- FHWA asked for confirmation that the Sharpe Site is eligible under Criterion D and would not require Section 4(f) alternatives analysis
    - NDOT confirmed the site is eligible under Criterion D
- USACE noted that impacts on wetlands are not necessarily prioritized over channel impacts and noted that they view the wetland impacts for the combined and widen south alternatives to be similar, but the channel impacts for the Widen South alternative are more than 2 times the impact of the Combined Alternative.
- USACE asked for clarification on a compound foreslope
    - NDOT noted that a compound foreslope is a barnroof cross-section where there is a flatter slope close to the road with a steeper slope further away.

6. Minimization and Mitigation Strategies

- NeSCAP Analysis
    - HDR presented the NeSCAP analysis that was completed for impacts to the channel east of the N-15 intersection.
    - USACE reiterated that their sequencing for impacts is: Avoid, Minimize, Mitigate and noted that mitigation should not be used to "buy-down" impacts.
    - NDOT noted NeSCAP was used after a suggestion at the last agency meeting and it is being used as a planning tool as NDOT looks at all options.
    - FHWA asked if USACE is more concerned with stream impacts?
    - USACE noted that all aquatic resource impacts are of concern and that the purpose of pre-application meetings is to have these discussions.
    - USACE noted that they need additional information on purpose and need before they can give full comments on alternatives.
    - NDOT said they will provide Purpose and Need to USACE for review.
- Potential Mitigation Sites
    - HDR presented an update on the status of Potential Mitigation Sites post 2019 flood
        - USACE noted that they would check on the status of a permit for the Stalp gravel site.
    - USACE asked if NDOT will be pursuing restoration? NDOT confirmed that early mitigation plans are for restoration.

7. **Schedule/Next Steps**
    - USACE requested that the presentation be sent to the group.
        - The presentation is attached to these notes.
    - USACE requested that the NeSCAP analysis be provided
        - The NeSCAP analysis and potential mitigation options were included in the meeting invitation.
    - NDOT noted that there will be one or more follow-up meetings for the alternatives. Alternatives information would be sent out a few weeks prior for review.

Action Items

Who	Task	Date Assigned	Date Completed
NDOT	Send out the presentation slides.	2/27/2020	
NDOT	Send USACE the detailed purpose and need.	2/27/2020	
NDOT	Set up an alternatives meeting with USACE when a more detailed write-up has been completed.	2/27/2020	
USACE	Confirm whether a permit is pending or has been issued on the Stalp proposed mitigation site.	2/27/2020	

Sign-In Sheet

Project: NDOT Norfolk-Wisner
Project No. S-275-6(1052)
CN 32319

Subject: Project Alternatives and Impacts

Date: Thursday, February 27, 2020

Location: NDOT, Room 139A (Auditorium), 1500 Highway 2, Lincoln, NE

Attendee	Organization	Phone	Email
Carmen Madrcin	HDR	402-399-1197	carmen.madrcin@hdrinc.com
Quinn Deungaard	HDR	402-399-1041	Quinn.Deungaard@hdrinc.com
Shannon Sjolie	NGPC	402 471 5423	shannon.sjolie@nebraska.gov
Jon Barber	NDOT-ENV	402-479-4412	Jon.Barber@nebraska.gov
Scott Stapp	FHWA	402-742-8465	scott.stapp@dot.gov
John Moeschen	USACE	402-896-0896	John.L.Moeschen@usace.army.mil
Phil Rezac	USACE	402-896-0896	Phil.M.Rezac@usace.army.mil
Brooke Stansberry	USFWS	308-379-8554	Brooke_Stansberry@fws.gov
Laura Johnson	NDEE	402-471-8389	laura.r.johnson@nebraska.gov
Jason Jurgens	NDOT	402-479-4418	jason.jurgens@nebraska.gov
Josh Wilhelm	NDEE	402-471-3343	josh.wilhelm@nebraska.gov
Dane Pavley	NDEE	402-471-2875	dane.pavley@nebraska.gov
Dillon Dittmer	NDOT	402.479.4411	dillon.dittmer@nebraska.gov
Katie Krajicek	NDOT	402-479-3812	katie.krajicek@nebraska.gov
Melissa Maiefski	FHWA	402-742-8473	melissa.maiefski@dot.gov
Phone:			
Lisa Richardson	HDR		
Elodora Chamberlain	EPA		
Amber Tilley	EPA		

Agenda

Project:	NDOT Norfolk-Wisner Project No. S-275-6(1052) CN 32319
Subject:	USACE Reference # 2019-00187; Approved Jurisdictional Determination
Date:	Wednesday, March 10, 2021
Location:	Webex, please see meeting invitation.
Attendees:	NDOT: Jeff Hartman, Jason Jurgens, Frank Albrecht HDR: Lisa Richardson, Carmen Modrcin FHWA: Zach Kresl, Justin Luther USACE: Phil Rezac, Matt Wray EPA: Eliodora Chamberlain, Justin Kensinger NDEE: Laura Johnson, Dane Pauley

The purpose of the meeting is to discuss the status of the project, share the information gathered to this point, and to present the NDOT request for a USACE Approved Jurisdictional Determination (AJD).

1. **Introductions (NDOT; Jeff)**

2. **Project Background (HDR; Lisa)**
    - Previous coordination
        - Agency scoping meeting 7/31/2019
        - Pre-application meeting 11/2/2019
        - Pre-application meeting #2 2/27/2020
    - Delineation report
        - Submitted to USACE prior to the scoping meeting in 2019
        - USACE has not completed a site visit at this time.

3. **Jurisdictional Determination Request (NDOT; Jeff)**
    a. 2020 Navigable Waters Protection Rule: Definition of “Waters of the United States”
    b. NDOT recommendations
        i. NDOT walked through Figure 3 from the delineation report and how that compared to the USACE Jurisdictional Guidance document. USACE and NDOT clarified that the discussion being presented was NDOT recommendations and the USACE would have the final determination on jurisdiction.
        ii. Presented the historic aerials that NDOT received from NRCS.
        iii. Discussed NDOT’s interpretation of ditch wetlands versus other wetlands.
    c. State Title 117 Waters
        i. Discussed NDEE’s stance on USACE non-jurisdictional wetlands that fall under the purview of the state. NDEE indicated that the process isn’t black and white. NDEE can’t require mitigation but they can make

recommendations. NDOT could also be liable if a water is impaired to the point of listing due to the project.

ii. NDEE indicated that they would like to see the approved JD when it is complete. Following that, NDEE would be able to give a more in-depth review and recommendation.

d. Discussion

4. Schedule/Next Steps (NDOT)

a. NDOT will keep moving forward with the EA with a goal date for the DEA is January 2022 and FEA is May 2022

b. USACE did not indicate a timeframe for the approval of the JD request. NDOT has offered to meet USACE on site to review the resources. EPA indicated that they would also like to be involved with a site visit, either on a conference call or in-person.

c. EPA requested to be included on future submittals to USACE, including Janette and Justin.

Meeting Minutes

Project:	NDOT Norfolk-Wisner Project No. S-275-6(1052) CN 32319
Subject:	USACE Reference # 2019-00187; Pre-Application Meeting
Date:	Tuesday, May 30, 2023
Location:	Webex
Attendees:	NDOT: Jeff Hartman, Brett Harbison, Ben Trenne HDR: Lisa Richardson, Quinn Damgaard, Carmen Modrcin USACE: Jeremy Grauf, Dalton Decker

The purpose of the meeting was to update new USACE staff on the history and current status of the project.

- Project background
    - HDR presented a history of the agency coordination completed to date. The following have occurred:
        - July 31, 2019 - Agency scoping meeting was held at NDOT Headquarters in Lincoln, Nebraska. The purpose of the meeting was to present the Project to the agencies and to seek input on the Project purpose and need, preliminary alternatives, potential resources of concern, and schedule.
        - November 20, 2019 - Section 404 pre-application meeting was held at NDOT Headquarters in Lincoln. The purpose of the meeting was to present to USACE the two preliminary Build Alternatives, their potential impacts, and the six potential wetland mitigation sites that NDOT had identified. At the meeting USACE expressed concern about the range of alternatives and suggested consideration of an off-alignment alternative and an alternative that would bridge and avoid impacts on aquatic resources.
        - February 27, 2020 - Agency coordination meeting was held at NDOT Headquarters in Lincoln. The purpose of the meeting was to discuss the status of the Project, and to share the information gathered to date. NDOT presented their initial alternatives evaluation along with rationale for why they believe the off-alignment and on-structure alternatives were not reasonable. Mitigation site options were also discussed, including NDOT's preferred ranking.
        - March 10, 2021 - Agency coordination meeting was held via Webex. The purpose of the meeting was to discuss the status of the Project, to share the information gathered to date, and to present NDOT's request for a USACE Approved Jurisdictional Determination (AJD).
            - *USACE asked about the status of the AJD. It was USACE's understanding that NDOT was not moving forward with that. NDOT agreed that they would not be moving forward with the AJD.*

- Norfolk-Wisner Alternatives & Impacts
    - HDR presented the four corridors that have been evaluated. Additionally, HDR presented the preliminary impact area for the Widen South + Shift Alternative along with the resulting impacts. Specifically the preliminary impact on aquatic resources is estimated at 13.2 acres of wetlands and 4,359 linear feet of waterway. These impacts may be further minimized during final design.

        - *USACE asked if there was anything showing the comparisons of the four alternatives. HDR presented the comparison table from Chapter 2: Alternatives Analysis of the DEA that summarizes the impacts of each reasonable alternative on the various resources present in the study area.*

- Mitigation
    - HDR presented the mitigation concept at the Wisner Mitigation Site.
        - *USACE asked about the current land use. HDR noted that it was all being farmed.*
        - [Following the meeting, a site drive by confirmed that the site was in row crop production in the north and east and hay in the south and west.]
    - NDOT presented the mitigation site in Google Earth and inquired if USACE would be interested in doing a site visit, as requested in previous meetings with USACE. *USACE confirmed that they are still interested in doing a site visit. USACE requested a copy of the conceptual plan prior to a site visit.*
        - *USACE questioned why the extent of shown grading was needed. HDR explained that grading shown is needed to restore topography and wetlands following decades of farming.*
        - *USACE asked about previous installation of drain tiling. Neither NDOT nor HDR was aware of any previous tiling at the site. USACE questioned whether the proposed plan would be restoration or creation.*
    - Advanced Permittee Responsible Mitigation (APRM) – NDOT discussed the possibility of using the portion of the site not designated for Norfolk-Wisner as an APRM site for the US-275 Wisner – West Point project.
        - *USACE indicated they prefer to not use APRM as there is no agreement between USACE and NDOT about these sites and how they are used. NDOT noted that they track APRM sites just like mitigation sites with ledger sheets. USACE requested excel versions of NDOT's APRM site ledgers.*

- Schedule
    - HDR presented the tentative schedule.
        - Draft EA: Fall 2023
        - Final design: 2023-2024
        - Permit to USACE: Spring 2024
        - Letting: Spring 2025
    - *USACE indicated that an IP could be issued approximately 120 days after the application is complete, but the timeframe may be longer depending on mitigation. USACE indicated that the Section 401 Water Quality pre-filing meeting should happen prior to the permit being submitted. That way the two public notices can be put out together.*
    - *USACE would like to have a few more pre-application meetings to discuss purpose and need and alternatives to make the permitting process smoother. It is USACE's intent to reuse the documentation from the EA to the greatest extent possible.*
    - *USACE noted that, if FHWA is agreeable, they would be interested in seeing the purpose and need and alternatives chapters prior to the DEA. NDOT said they would look into this.*

From: Decker, Dalton D CIV USARMY CENWO (USA)
To: Hartman, Jeff
Cc: Grauf, Jeremy CIV USARMY CENWO (USA); Harbison, Brett A CIV (USA); Hollis, Lauris; Trenne, Ben; dillon.dittmer@dot.gov; Jurgens, Jason; Modrcin, Carmen; Damgaard, Quinn V.; Richardson, Lisa (Omaha)
Subject: RE: US-275 Norfolk - Wisner (CN 32319)
Date: Wednesday, October 11, 2023 1:49:07 PM

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Hartman,

I don't have any comments on the purpose and need or alternatives analysis that you provided. I look forward to working with you on the mitigation plan and throughout the permitting process.

Thanks,

Dalton Decker
Project Manager
U. S. Army Corps of Engineers Regulatory
Field Support & Analysis Section
605-945-3388

From: Hartman, Jeff <jeff.hartman@nebraska.gov>
Sent: Tuesday, October 10, 2023 4:27 PM
To: Decker, Dalton D CIV USARMY CENWO (USA) <Dalton.D.Decker@usace.army.mil>
Cc: Grauf, Jeremy CIV USARMY CENWO (USA) <Jeremy.Grauf@usace.army.mil>; Harbison, Brett A CIV (USA) <Brett.Harbison@usace.army.mil>; Hollis, Lauris <Lauris.Hollis@nebraska.gov>; Trenne, Ben <Ben.Trenne@nebraska.gov>; dillon.dittmer@dot.gov; Jurgens, Jason <Jason.Jurgens@nebraska.gov>; Modrcin, Carmen <Carmen.Modrcin@hdrinc.com>; Quinn Damgaard <quinn.damgaard@hdrinc.com>; Lisa Richardson (lisa.richardson@hdrinc.com) <lisa.richardson@hdrinc.com>
Subject: [Non-DoD Source] RE: US-275 Norfolk - Wisner (CN 32319)

Hi Dalton,

Does the USACE have any comments on the P&N or Alternatives chapters for the Norfolk – Wisner EA? NDOT would like to address any comments from FHWA and USACE at the same time. We would be making updates in the next few weeks. Let me know, thanks!

-Jeff

Jeff Hartman, Ph.D.
Environmental Supervisor

Wetlands | T&E Species | Historic Properties

Nebraska Department of Transportation
1500 Nebraska Parkway, Lincoln NE 68502
OFFICE 402-479-4768
CELL 402-276-3038
HOURS 7:30AM – 4:00PM
jeff.hartman@nebraska.gov
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From: Hartman, Jeff
Sent: Tuesday, September 12, 2023 1:55 PM
To: Decker, Dalton D CIV USARMY CENWO (USA) <Dalton.D.Decker@usace.army.mil>
Cc: Grauf, Jeremy CIV USARMY CENWO (USA) <Jeremy.Grauf@usace.army.mil>; brett.harbison@usace.army.mil; Hollis, Lauris <Lauris.Hollis@nebraska.gov>; Trenne, Ben <Ben.Trenne@nebraska.gov>; dillon.dittmer@dot.gov; Jurgens, Jason <Jason.Jurgens@nebraska.gov>; Modrcin, Carmen <Carmen.Modrcin@hdrinc.com>; Quinn Damgaard <quinn.damgaard@hdrinc.com>; Lisa Richardson (lisa.richardson@hdrinc.com) <lisa.richardson@hdrinc.com>
Subject: US-275 Norfolk - Wisner (CN 32319)

Hi Dalton,

During our pre-application meeting on 5/30/23, the USACE stated that the purpose and need and alternative analysis sections of the draft EA would be helpful to review for the 404b(1) analysis.

Please see the attached purpose and need and alternative analysis chapters from the preliminary draft EA, which was submitted to FHWA on 9/11/23.

Also, I would like to say that NDOT would still be interested in a site visit with the USACE to the Stalp mitigation site for this project, and would like to aim for later this fall after the harvest if that works for the USACE. NDOT could potentially provide an initial conceptual mitigation plan around this time.

If you have any questions on the P&N or alternatives anlaysis, please let me know. Thanks Dalton!

-Jeff

Jeff Hartman, Ph.D.
Environmental Supervisor – Wetlands | T&E | Section 106

Nebraska Department of Transportation
1500 Nebraska Parkway, Lincoln NE 68502
OFFICE 402-479-4768
CELL 402-276-3038
HOURS 7:30AM – 4:00PM
jeff.hartman@nebraska.gov

dot.nebraska.gov | Twitter

Appendix S

Public and Stakeholder Involvement

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

S-275-6(1052) Norfolk – Wisner; C.N. 32319
Stakeholder Meeting
Tuesday, August 27, 2019
4:00 PM to 5:00 PM
Wisner-Pilger Grade School, Library (Room 130), 801 18th St N, Wisner, NE 68791

Stakeholder Meeting Notes

Kyle Keller gave the presentation regarding the US-275 Norfolk to Wisner project. Following the presentation, the meeting opened up to a question and answer session. The notes below are a summary of that discussion:

- **When would construction begin?**
  - Construction could begin in 2021 through 2022 depending on funding.
- **There was a concern about how the project would tie into Wisner, and if a traffic light would be installed. An attendee found it difficult to cross US-275 coming from the north.**
  - NDOT intends to tie into the existing four-lane cross section and US-275 would remain on Main Street through town, but NDOT plans to evaluate multiple options during preliminary design. Options could include a traffic light at the school.
- **Has the alternative moving forward been determined? An attendee remembered that a study a few decades ago had determined which side the new lanes would be on.**
  - The alternative has not yet been determined as NDOT is still going through preliminary engineering and evaluating potential impacts of the north and south alternative. The alternatives are constrained by the existing lanes and the new lanes would either expand to the north or south.
- **One attendee owns land along US-275 and asked how access with farms would work.**
  - Access to farms would be evaluated and modifications, which could include consolidation, relocation and restriction of access, would adhere to the State's Access Control Policy. NDOT would coordinate with landowners throughout the process to make sure the changes work with their use of the parcels.
- **How long is construction going to take?**
  - NDOT believes the first project could start sometime in 2021 or 2022. The project would take two to three years to complete. Norfolk to N-15 would take approximately two years to construct. N-15 to Wisner would take approximately one year to construct, but a start date has not been established. The proposed US-275 projects were identified during the Build Nebraska Act outreach meetings and are a priority to NDOT.
- **The reason for this project is based on traffic?**
  - At this time, NDOT isn't looking to bypass Wisner. Not bypassing communities allows NDOT to save money, which can then be spent to build more miles of expressway between communities. Additionally, reactions to bypasses differ by community. For example, West Point is opposed to being bypassed. NDOT is trying to think further into the future so that a bypass could be accommodated later.
- **For the tie-in to Wisner, how would NDOT decide to add lanes into the floodplain or impact the football fields at Wisner-Pilger Schools?**
  - NDOT can't create a rise condition by filling into the floodplain, but NDOT would minimize impacts to the school. The amount of change with regard to the floodplain near Wisner are constrained by the tie-in location.
- **When would NDOT go from preliminary design to a "lock down" date?**

  - Late 2019. NDOT would know more once they know if they will receive a response on their BUILD Grant application.
- **Would NDOT take in-town traffic into account with the next project to Beemer? Could different surfacing be used in town to cue drivers to slow down?**
  - NDOT does not intend to extend the projects into Wisner, but the end point of the project is preliminary. Additional traffic in town as a result of the project would be taken into consideration on this project.
- **What are NDOT's plans for N-15?**
  - NDOT is evaluating options for N-15, but does not anticipate the intersection changing dramatically, pending review. Improvements probably won't include a signal, but could include additional left and right turn lanes.
- **Would all vehicles at side roads need to come to a stop? Would not stopping at side roads to merge onto US-275 be an option?**
  - NDOT would look into the "free right" option. This option would depend on traffic counts. There are certain situations that NDOT would like to avoid, like side-by-side approach at a stop condition.
- **Would NDOT ever do a combination north & south alternative?**
  - NDOT would prefer to do just the north alternative or just the south alternative because switching sides unravels the 2+2 concept, but a combination could be an alternative to look into. If the side of construction is switched NDOT must evaluate what is being missed from location to location. It may be feasible, but would increase the project's cost and time to construct.
- **Are the project limits likely to extend to N-15?**
  - The N-57 to east N-15 intersection would be first, but the N-15 to Wisner project schedule has not been determined. NDOT would hope to jump into the second project at the conclusion of the first.
- **An attendee asked for a status update on the Scribner to West Point project.**
  - This project is in progress and on schedule. NDOT plans to award the project to a design-build contractor in 2019.
- **Would speed limits through Wisner increase?**
  - It is not anticipated that speed limits would change within Wisner, but speed transition locations may be adjusted. In-town speed limits are set based on state statute and adjacent land use.
- **An attendee asked if there were only three historic properties.**
  - Stacy Stupka provided an overview of the historic properties that have been identified. The former NDOT rest area has been maintained and attendees agree that it is a great facility for their farmers market. The Sharpe Homestead may have been known as the Kaohler Homestead previously.
  - Trenching would occur along US-275 to conduct archeological investigations, but only after the crops are out to minimize damage.
  - Historic property owners would be considered "consulting parties" in the environmental process.

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S-275-6(1052) Norfolk – Wisner; C.N. 32319
Stakeholder Meeting
Tuesday, August 27, 2019
4:00 PM to 5:00 PM
Wisner-Pilger Grade School, Library (Room 130), 801 18th St N, Wisner, NE 68791

Wisner-Pilger Schools Meeting Notes

Following the stakeholder meeting, NDOT staff met with Chad Boyer, Superintendent, Aric Butterfield, Jr/Sr High School Principal, and Mark Porter, Elementary Principal to discuss traffic concerns with roads surrounding the school and how the project would impact the school.

- The Wisner-Pilger School District extends past the N-15 west intersection.
- Traffic to the school primarily comes from the west, including one to two busses every day. Other traffic comes from in town, that doesn't use the highway as much.
- 21st Street is currently utilized by elementary school parent drivers. 18th Street currently is used by busses and high school traffic. The school would like visiting team buses to use 18th Street as well, but they sometimes use 21st Street. Neither intersection is desirable, but 21st Street is less so because of higher speeds and only one lane in either direction.
- Ideally busses would use 21st Street but the school would like to see a left turn lane on US-275 to make that possible. The 21st Street left turn would benefit buses, businesses, and elementary school parents.
- 18th Street "does not feel like a safe intersection, particularly during peak hours (school start/end). Truck traffic on 18th Street is also a concern because trucks go down the hill towards US-275 at a higher speed. The school would like 18th Street to be designated as a non-truck route, though they are sensitive to the needs of the area's feeder operations.
- 17th and 18th Streets being so close together at an odd angle is confusing for drivers as it is difficult to tell what another driver's intention is (if the intend to turn onto 17th or 18th Street).
- The school would like to see a right turn lane on 21st Street to alleviate queuing, as well as left turn lanes for 21st Street and 18th Street to provide protection for turning drivers and help alleviate queuing. Any improvements that get their buses and parents out of through traffic would be desirable.
- The schools wonders what the section west of 18th Street to 21st Street would look like. A left-turn lane through this section would be ideal to them.
- Other possible options to be evaluated, in addition to turn lanes, include traffic lights or a roundabout. NDOT would need to explore these options in more detail, though a traffic signal would need to meet warrants. The school is open to any solution that prioritizes driver safety.
- All facilities at the school are open to the public at all times.
- The school noted tradeoffs of their property impacts for safety improvements would be worth it from their perspective. NDOT cautioned that impacts to public spaces are complicated, even if the owner is in favor of the change.
- NDOT cautioned that design features that provide both safety improvements, like right-turn lanes, and try to minimize impacts to the school property would introduce impacts on the south side of the highway.
- The ditch by the track and athletic fields has some drainage issues, but has not overflowed. It will occasionally backfill when water is high on the south side of US-275. The slow drainage is more of a nuisance than something that causes permanent damage or a safety issue.

- The northwest corner of the 18th Street intersection, which was formerly used for girl's discus, isn't currently utilized by the school. The school offered that area as possibly useful for modifying the 18th Street intersection.
- The school desires full access at county road intersections for their bus routes. Buses currently travel 3rd, 4 ½, and 6th Roads.
- A 76-acre housing development is planned for just north of the school, extending north to N-51.

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S-275-6(1052) Norfolk – Wisner; C.N. 32319

Stakeholder Meeting

Your attendance and participation is appreciated.

	Name	Representing	Contact Info
1	John Jacobs	Citizens State Bank	JohnJ@citstatebank.com
2	Chad Boyer	Wisner Pilger Schools	cboyer@igators.org
3	Gina Cotton	4 Lanes 4 Nebraska	gina@4lanes4Nebraska.com
4	GALIN Heimann	Village of Pilger	ropilger@cableone.net
5	Tina Biteghe Bi Nolay	West Point Chamber	info@westpointchamber.com
6	Mike Westerman	West Point	Cuming Co Historical Society
7	Ina Gaulkier	Wisner	Representing Wisner Heritage Museum
8	Brett Vahle	Landowners	bbcvahle@gmail.com.
9	Aaron Becker	Pilger Coop	pilgercoop1@conpoint.com
10	Jennifer Cleveland	Wisner Chamber	wisnerwest@conpoint.com
11	Metka Kolm	Nucor	Metka.Kolm@nucor.com
12	Holly Schroeder	Wisner Comm. Dev	hollyschroeder3@gmail.com.
13	Chad Dixon	Wisner Mayor	cedix86@hotmail.com
14	Barry Meyer	Wisner (Council)	bearmeyer1@gmail.com

Tuesday, August 27, 2019; 4:00 – 5:00 PM; Wisner-Pilger Grade School, Library (Room 130), 801 18th St N, Wisner, NE 68791

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S-275-6(1052) Norfolk – Wisner; C.N. 32319

Stakeholder Meeting

Your attendance and participation is appreciated.

	Name	Representing	Contact Info
1	Terry Soden	Wisner City Council	t-soden@yahoo.com
2	John Rissetto	SHPO	John.Rissetto@nebraska.gov
3	J.D. Alexander	Self	jdnfarms@compuni.com
4	Randy Woldt	City of Wisner	rwoldt@cableone.net
5	Denise Wilkinson	Norfolk Chamber	dwilkinson@norfolkarea chamber.com
6	Steven Rames	City Norfolk	srames@ci.norfolk.ne.us

Tuesday, August 27, 2019; 4:00 – 5:00 PM; Wisner-Pilger Grade School, Library (Room 130), 801 18th St N, Wisner, NE 68791

Meeting Notes

Project:	32319: Norfolk - Wisner
Subject:	NDOT Norfolk - Wisner Expressway Project - Wisner-Pilger Schools
Date:	Wednesday, June 14, 2023
Location:	Webex

Attendees:	NDOT	Wisner-Pilger Schools	HDR	JEO
	Jon Barber Kyle Keller Ben Trenne Courtney Ziska	Chad Boyer	Lisa Richardson Paul Knievel Carmen Modrcin	Jay Fallick

A meeting was held with Wisner Public Schools to discuss NDOT's US-275 Norfolk – Wisner expressway project. The purpose of the meeting was to update the school on the project and discuss preliminary impacts on the school property as well as traffic operations that may result from construction. This meeting was a follow-up to a meeting that occurred in 2019 that introduced the project.

1. **Project Updates**

   NDOT noted that the project has been delayed since NDOT has not received USDOT grant funding to expedite the project. In the intervening time, work has been progressing and NDOT has identified a preferred alternative that will be evaluated in an Environmental Assessment and presented to the public later this year.

   - Preliminary Preferred Alternative – Widen South + Shift – this would construct new lanes on the south side of the existing lanes. The new four-lane section with a median would transition to the existing four-lane section in Wisner.
   - The School noted that elementary school and event traffic typically uses 21st Street to get to school and high school traffic uses 18th Street. Wisner schools host a lot of events throughout the year.
   - 21st Street intersection
     - The project includes an eastbound left-turn lane and a westbound offset right-turn lane at the intersection.
     - The School noted that buses making the eastbound left-turn onto 21st street currently queue up (2-3 at a time) on US-275, blocking the through lane. NDOT noted that the current storage length on the proposed left-turn lane is approximately 230 feet. The School would like enough room for two buses and at least 1 car. NDOT will look at the current storage to see what can be accommodated.
   - 18th Street Intersection
     - The project would construct four lanes through the intersection and would slightly realign 18th Street to improve sight distance with US-275. The new lanes would not include a median or turn lanes at the intersection.
       - The School noted that the City of Wisner has considered realigning 18th Street to improve sight distance as well as potentially closing 17th

Street. NDOT has not seen or heard anything from the City regarding either item.

- Asked if there would be a continuous left-turn lane between 21st & 18th streets. NDOT said no, the project tapers to a four-lane width between those intersections. The School indicated outbound traffic queues on 18th Street for school events. Traffic often backs up to F Avenue. Eastbound inbound traffic also queues on US-275 to turn onto 18th Street. The School would like to see an eastbound left-turn lane onto 18th Street to accommodate this. NDOT noted that adding a turn lane would extend the project limits further east and require additional widening. The school also asked about possible left and/or right turn lanes on 18th Street (southbound). NDOT noted that turn lanes are not planned and that side-by-side turn lanes can obstruct the sight distance for the adjacent lane. **NDOT indicated that they would evaluate the potential to add turn lanes at the intersection.**

2. **Wisner-Pilger Schools Impacts**
   - NDOT introduced the school as a Section 4(f) resource and why it qualifies for protection under the USDOT Transportation Act. The school playgrounds and sports fields are open to the public and NDOT recognizes this as a publicly owned recreational facility.
   - NDOT noted the recreational portions of the property as including the practice field, football field, track, and playgrounds. The School said the field to the north of the track is also open for recreational uses. It is used as a discus warmup area and as event parking. There is also a walking trail located along the east side of the property.
   - NDOT explained the following preliminary impacts on school property:
     - 18th Street
       - ~ 0.15 acre of right-of-way would be needed to realign 18th Street.
       - The shotput/discus pad in the northwest quadrant of 18th Street and US-275 would be removed. The School confirmed this pad is not in use any longer. NDOT asked if the School had any plans to remove the pad to which the School indicated that they did not. The pad would be removed by the project.
       - The School also noted the school's electronic sign in that same area. Based on current design, the sign would not be affected, but NDOT noted that if it is impacted, the impact would be addressed during the right-of-way process.
     - 21st Street
       - ~0.07 acre of right-of-way would be needed for intersection improvements.
       - The shotput/discuss pad in the northeast quadrant of 21st Street and US-275 would be relocated 20-30 feet to the northeast. It would be NDOT's responsibility to relocate the pad. This would be a mitigation measure in the Section 4(f) documentation.

- NDOT is proposing that the impacts on school property at these two intersections would be minor (*de minimis*). Part of the Section 4(f) documentation would be the school signing an official with jurisdiction letter. This would be sent to the School following the public hearing. By signing, the School agrees that the project would not adversely affect the school property.
- The School noted the following school activities that would be affected by construction that NDOT might consider when identifying timing restrictions.
  - Daily fall and spring football practice
  - 5 varsity football games and 4-5 junior varsity football games
  - 12 varsity track meets plus 4-5 JV meets in the spring.
- NDOT noted that both the 18th and 21 Street intersections would not be closed at the same time to maintain access to the school.

3. Next Steps

- The Draft Environmental Assessment is expected to be published in fall 2023 with a public hearing soon after. The School indicated that they would most likely be able to provide meeting space for the hearing.

To: NDOT Environmental
From: Sarah Soula, Public Involvement Manager, NDOT
Date: 7 November 2019
RE: Public Involvement Summary Report, S-275-6(1052) Norfolk - Wisner; C.N. 32319

Public Involvement Outreach Requirements for Public Information Open House Meeting: C.N. 32319, S-275-6(1052) Norfolk - Wisner

Based on an analysis of the project scope and a civil rights analysis, a public information open house meeting, a targeted mailer in the form of a public notification, legal notice, news release, temporary highway signs, website, social media and a 30-day comment period were used as outreach tools for public involvement on this project. A public information open house meeting was held at the Wisner-Pilger School, in Wisner, Nebraska on Tuesday, September 10, 2019, from 5:30 to 8:00 p.m., with approximately 129 citizens in attendance. The public notification involved mailing a postcard, with a project location map, to a compiled distribution list of 190 citizens and businesses adjacent to the project location. Additionally, 115 public and private agencies with potential interest in the project were also included in the distribution list, including the Nebraska Trucking Association. A legal notice was placed in the *West Point News* and *Norfolk Daily News*, both Nebraska Press Association (NPA) recognized newspapers, on August 21, 2019 and August 26, 2019, respectively. Temporary highway signs advertising the meeting were placed near the project location. Project information was placed on the Nebraska Department of Transportation (NDOT) website.

NDOT Public Involvement received 14 comments during the specified comment period (August 26 – September 25, 2019), outlined below.

Comment	Response
Citizen is concerned that lowering 569th Avenue will move the location of the road closer to their house and affect their shelter belt and pond on their property. Citizen is concerned about the visibility of the traffic on the east if the substation entrance were to be on that side. Citizen believes the best location for the substation entrance is on the north.	Appreciates input. Stated that in regard to citizen's concerns about their shelter belt and pond, the project footprint is still being determined. Stated that NDOT is still evaluating impacts for both a north and a south alternative as part of NEPA, which oversees and regulates impacts to many different resources that are considered. Informed citizen that further coordination would be required. Informed citizen that the analysis considers impacts to landowners and their property. NDOT takes steps in avoiding and minimizing impacts to property owners as part of the design process. Informed citizen that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020. Appreciates participation.
Business owner is concerned the impacts to Main Street and Wisner will result in being unable to continue their business.	Appreciates input. Stated that in regard to business owner's concern about negative impacts to their business if a bypass were constructed, a bypass around Wisner, NE is not within the scope of this project. Informed citizen that this project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity and provide convenient highway access for communities within the area. A new alignment off the existing US-275 alignment would not meet the project's purpose. A bypass around Wisner is not within the project scope and the funding required for this is not available. Informed citizen that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020. Appreciates participation.
Business owner is aware that this segment of the project does not impact Wisner, but wants to emphasize that the health of many downtown businesses	Appreciates input. Stated that in regard to their concern about negative impacts to their business if a bypass were constructed, a bypass around Wisner, NE is not within the scope of this project.

depends on this highway. Citizen mentions that there are many examples in northeast Nebraska where a bypass is not helpful to downtown businesses.	Informed citizen that this project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity and provide convenient highway access for communities within the area. A new alignment off the existing US-275 alignment would not meet the project's purpose. A bypass around Wisner is not within the project scope and the funding required for this is not available. Informed citizen that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020. Appreciates participation.
Citizen recommends adding lanes on the south side of the highway, citing obstacles on the north side like cell towers, substations, and homes. Citizen also states that it would save taxpayer dollars if lanes were added to the south side of US-275.	Appreciates input. Stated that in regard to citizen's comment about adding two new lanes to the south side of US-275, NDOT is still evaluating impacts for both a north and a south alternative as part of NEPA, which oversees and regulates impacts to many different resources that are considered. Informed citizen that further coordination would be required. Informed citizen that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020, and that NDOT would like to continue this conversation in more detail as design will be available. Appreciates participation.
Business owner is content with the highway going through town, citing its economic benefits. The business owner is also concerned about traffic, and recommends the addition of stop lights to facilitate safer crossings.	Appreciates input. Stated that in regard to business owner's concern about negative impacts to their business if a bypass were constructed, a bypass around Wisner, NE is not within the scope of this project. Informed business owner that this project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity and provide convenient highway access for communities within the area. A new alignment off the existing US-275 alignment would not meet the project's purpose. A bypass around Wisner is not within the project scope and the funding required for this is not available.

	Stated that as part of this project, NDOT is analyzing the highway-to-highway intersections for improvements and modifications for the expansion to four lanes. Informed citizen that improvements to traffic signals to the east of the tie-in from the existing two-lane roadway to the four-lane roadway on the west end of the City of Wisner are outside of the scope of the project. NDOT assured citizen that NDOT regularly reviews the need for traffic signals and will take the comment into consideration. Appreciates participation.
Citizen is supportive of the project and looks forward to it moving forward.	Appreciates input. Stated that NDOT will continue to work towards completing the expressway system on US-275. Informed citizen that design alternatives would be developed and shared at the public hearing in 2020. NDOT looks forward to sharing this information and citizen's continued support. Appreciates participation.
Citizen would like Free Right access for vehicles entering from highway 15 from the south at the Pilger corner, and from the north on Highway 15 at the Wayne corner in addition to the 51/275 junction (west of Wisner). The citizen is also concerned that residents would be displaced during the project.	Appreciates input. Informed citizen that in regard to their comment about wanting free rights, NDOT is evaluating traffic warrants for all possible turn lanes, including free rights at the junctions and intersections. Stated that in response to their concern about limiting impacts to the north side of US-275 and adding new lanes on the south side, NDOT is still evaluating impacts for both a north and a south alternative as part of NEPA, which oversees and regulates impacts to many different resources that are considered. Informed citizen that further coordination would be required. Informed citizen that the analysis considers impacts to landowners and their property. NDOT takes steps in avoiding and minimizing impacts to property owners as part of the design process. Informed citizen that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020. Appreciates participation.

Citizen loves the current 275 highway from Stanton to Norfolk and is looking forward to the expansion, but is concerned that it will be slowed down by going through too many towns. Citizen is also concerned about the intersection of US-275 and Stanton County Road 573 Avenue. Citizen is worried about how drivers will be able to access the highway during construction, especially for overlooked populations like senior citizens and farmers.	Appreciates input. Informed citizen that safety is the number one concern and consideration for the NDOT regarding the Nebraska State Highway System. As part of this project, known safety issues will be addressed, and NDOT will incorporate safety improvements. Informed citizen that this project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity and provide convenient highway access for communities within the area. A new alignment off the existing US-275 alignment would not meet the project's purpose. A bypass around Wisner is not within the project scope and the funding required for this is not available. In regard to citizen's comment about access at the intersection of US-275 and County Road 573 Avenue, the project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Access to adjacent properties will be maintained during construction but may be limited at times due to construction phasing requirements. A US-275 detour would not be required. Stated that NDOT is still evaluating impacts for both a north and a south alternative as part of NEPA, which oversees and regulates impacts to many different resources that are considered. Informed citizen that further coordination would be required. Informed citizen that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020. Appreciates participation.
Citizen stated that their land may be available for wetlands and asked NDOT to contact them.	Appreciates input. Informed citizen that offsetting unavoidable wetland impacts is an important component of the delivery of a project. A representative from NDOT will be in contact with citizen in regards to the property referenced. Stated that the property would first undergo preliminary evaluation for viability as a wetland site. Additional field survey and examination may be required. Any steps towards acquisition of the

	property would follow state and federal regulations. Appreciates opportunity to discuss wetlands mitigation and participation.
Citizen does not want US-275 to pass through Wisner, citing the heightened truck traffic. For safety reasons, the citizen would like traffic to slow down at the junction of US-275 and N-51 by creating turning lanes, visual impairment aids, and a two-way stop-light at 10th street. The citizen also recommends that, to slow down traffic, three stop lights should be added in Wisner (1) 17th and 18th street intersection, 2) 13th street from 275, 3. 9th street from 275). The citizen is concerned that parking availability and congestion along Main Street will be worsened by the creation of a 4 lane highway extension. This may also impact the safety and increase collisions. Lastly, this citizen recommends creating a new road to Scribner or extending highways 15/30 south of Pilger in order to avoid the flooding that occurs along the wetlands near highway 275. This concern stems from the flooding that occurs to the bridges along the Elkhorn River.	Appreciates input. Informed citizen that a bypass around Wisner, NE is not within the scope of this project. Informed citizen that this project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity and provide convenient highway access for communities within the area. A new alignment off the existing US-275 alignment would not meet the project's purpose. A bypass around Wisner is not within the project scope and the funding required for this is not available. Informed citizen that safety is the number one concern and consideration for the NDOT regarding the Nebraska State Highway System. As part of this project, known safety issues will be addressed, and NDOT will incorporate safety improvements. Stated that the majority of the project would be designed and posted for expressway speeds of 70 miles per hour. The speed limit would be reduced as traffic approaches Wisner. NDOT will continue to reevaluate speed limits at regular intervals after the completion of this proposed project. Stated that in regard to citizen's concern about the safety and operation of the 21st Street and 17th / 18th Street intersections along US-275, NDOT is coordinating with Wisner-Pilger Schools and is evaluating options to improve these intersections, such as dedicated turn lanes, for school operations and other US-275 traffic. Improving this area near the school is another reason NDOT is continuing the expansion to four lanes east of N-51. The additional through lanes and dedicated turn lanes will reduce the potential for accidents related to turning movements in this area. Informed citizen that improvements to traffic signals to the east of the tie-in from the existing two-lane roadway to the four-lane roadway on the west end of the City of Wisner are outside of

	the scope of the project. NDOT assured citizen that NDOT regularly reviews the need for traffic signals and will take the comment into consideration. Stated that in regard to citizen's comment about bridge washouts, NDOT would analyze the existing and proposed drainage conditions to verify that the project would not negatively impact the existing drainage conditions in the area. NDOT is evaluating river flows and bridge conditions along the project to determine appropriate improvements. Appreciates participation.
Citizen is excited about the project including Omaha, Wisner and Hooper but is concerned about how it will impact the access onto US-275 from N-15. The citizen recommends using yield signs there instead of hard stops. The citizen also recommends that traffic should not go down Main Street or Avenue E in Wisner because of the area's speed limit issues.	Appreciates input. Stated that NDOT will continue to work towards completing the expressway system on US-275. Informed citizen that in regard to the 21st Street intersection, NDOT is coordinating with Wisner-Pilger Schools and is evaluating options to improve this intersection, such as dedicated turn lanes, for the school operations and US-275 traffic. In regard to access to US-275 from N-15, stated that NDOT is analyzing the highway-to-highway intersections for improvements, such as turn lanes, traffic control devices, and additional modifications for the expansion to four lanes. Informed citizen that this project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity and provide convenient highway access for communities within the area. A new alignment off the existing US-275 alignment would not meet the project's purpose. A bypass around Wisner is not within the project scope and the funding required for this is not available. Informed citizen that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020. Appreciates participation.

Citizen owns land at US-275 and N-15 and would like the two new lanes on the south side.	Appreciates input. In response to citizen's comment about adding two new lanes to the south side of US-275, NDOT is still evaluating impacts for both a north and a south alternative as part of NEPA, which oversees and regulates impacts to many different resources that are considered. Informed citizen that further coordination would be required. Informed citizen that the analysis considers impacts to landowners and their property. NDOT takes steps in avoiding and minimizing impacts to property owners as part of the design process. Informed citizen that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020. Appreciates participation.
Citizen is a landowner in Cuming County. Their land is located on US-275 and N-15 and would prefer to see the two new lanes on the south side.	Appreciates input. In response to citizen's comment about adding two new lanes to the south side of US-275, NDOT is still evaluating impacts for both a north and a south alternative as part of NEPA, which oversees and regulates impacts to many different resources that are considered. Informed citizen that further coordination would be required. Informed citizen that the analysis considers impacts to landowners and their property. NDOT takes steps in avoiding and minimizing impacts to property owners as part of the design process. Informed citizen that preliminary impacts and more design detail would be developed and shared at the public hearing in 2020. Appreciates participation.
Citizen is concerned about speed limits by the second (west) entrance to Wisner-Pilger Schools. Citizen suggests that speed limits be 40 mph instead of 50 mph for safety reasons.	Appreciates input. Informed citizen that safety is the number one concern and consideration for the NDOT regarding the Nebraska State Highway System. As part of this project, known safety issues will be addressed, and NDOT will incorporate safety improvements. Stated that in regard to the speed limit at the west entrance to Wisner-Pilger Schools, NDOT, in coordination with the City of Wisner, conducted speed studies in November 2014 along US-275. As a result of the studies, a 50 mile per hour speed limit was established and a vehicle

	activated speed indicator was installed near the west entrance. NDOT will continue to reevaluate speed limits at regular intervals after the completion of this proposed project. Appreciates participation.

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S-275-6(1052) Norfolk – Wisner; C.N. 32319
c/o Kristen Veldhouse
1917 S 67th St
Omaha, NE 68106

You're Invited to a Public Information Meeting!

Date: **Tuesday, September 10, 2019**

Time: **5:30 - 8:00 PM**
Presentation at **6:00 PM**

Location: **Wisner-Pilger High School**
Fine Arts Auditorium
801 18th St N
Wisner, NE 68791

NEBRASKA
US-275
NORFOLK TO WISNER

The Nebraska Department of Transportation (NDOT) is hosting a public information meeting to discuss the Norfolk – Wisner project. A formal presentation will begin at 6:00 PM, with an open house to follow. Project information will be available, and representatives from NDOT will be present to answer your questions and receive comments.

Please join us!

Date: **Tuesday, September 10, 2019**

Time: **5:30 - 8:00 PM**
Presentation at **6:00 PM**

Location: **Wisner-Pilger High School, Fine Arts Auditorium**
801 18th St N
Wisner, NE 68791

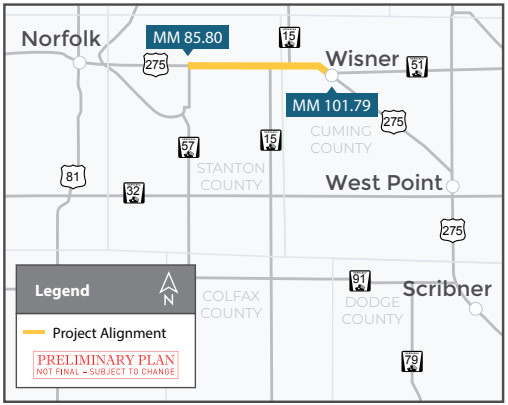
NDOT will make every reasonable accommodation to provide an accessible meeting facility for all persons. Appropriate provisions for the hearing and visually challenged or persons with Limited English Proficiency (LEP) will be made if NDOT is notified by September 3, 2019.

Project Details

S-275-6(1052) Norfolk – Wisner; C.N. 32319

NDOT is proposing to improve approximately 16 miles of U.S. Highway 275 (US-275), located in Stanton and Cuming Counties, Nebraska. The project begins 8.5 miles east of Norfolk, approximately 0.30 mile west of the intersection of US-275 and Nebraska Highway 57 (N-57) at mile marker (MM) 85.80 and extends east and south to the west side of Wisner, Nebraska at MM 101.79, where it ties into the existing US-275 four-lane roadway.

The improvements would expand the existing two-lane highway to a four-lane expressway by constructing a new, parallel two-lane roadway, including drainage structures, adjacent to the existing US-275. The existing two lanes of US-275 would be resurfaced and bridges would be repaired or replaced as needed. In addition to mainline US-275 construction, the project may include improvements at the US-275 intersections with N-57, Nebraska Highway 15 (N-15) and Nebraska Highway 51 (N-51), as well as various county roads.



Comments will be collected through **September 25, 2019** and should be submitted to:

Sarah Soula, *NDOT Public Involvement*

P.O. Box 94759, Lincoln, NE 68509-4759
sarah.soula@nebraska.gov
tel (402) 479-4871
fax (402) 479-3989

Information regarding the proposed project will be available on the NDOT website at **https://dot.nebraska.gov/projects/future-projects/** by clicking on "Norfolk - Wisner". For those without internet access, information may be obtained at NDOT Headquarters, 1500 Highway 2, Lincoln, NE, or by contacting:

Kevin Domogalla, *NDOT District 3 Engineer*

408 N 13th St, Norfolk, NE 68701-3714
kevin.domogalla@nebraska.gov
tel (402) 370-3470

Norfolk Daily News

OWNED BY THE HUSE PUBLISHING COMPANY
NORFOLK, NEBRASKA
Federal ID #47-0197190

RECEIVED
AUG 28 2019
COMMUNICATION DIVISION

PROOF OF PUBLICATION

THE STATE OF NEBRASKA
Madison County

Debbie Warneke, being first duly sworn on oath says that she is the Business Manager of **The Huse Publishing Company**, a corporation, publishers of the **Norfolk Daily News**, a legal daily newspaper published at Norfolk, Madison County, Nebraska, and of general circulation in said county; that a notice entitled

Meeting Notice – September 10, 2019: a true copy of which, as printed in said paper, is hereto attached and made a part hereof, was published in the issue of said paper for **one time**, the publication being **August 26, 2019**; that said newspaper was published daily in the City of Norfolk within said County for more than 52 consecutive weeks immediately prior to the commencement of the publication of said notice and every week consecutively since that time; and during all of said time said newspaper had a bona fide circulation of more than 300 copies daily and was printed wholly in the English language and in whole or in part in an office maintained by the publisher at said place of publication.

Debbie Warneke

Subscribed and sworn to before me this 26 day of August, 2019

Lori J Brummels
Notary Public

GENERAL NOTARY - State of Nebraska
LORI J. BRUMMELS
My Comm. Exp. October 4, 2019

166 Lines	$	80.37
Clip Fee	$	
Proof of Publication	$	5.00
Prepayment	$	
Balance Due	**$**	**90.37**

RECEIVED
AUG 28 2019
COMMUNICATION DIVISION

NEBRASKA DEPARTMENT OF TRANSPORTATION

NEBRASKA DEPARTMENT
OF TRANSPORTATION
NOTICE OF PUBLIC
INFORMATION MEETING
Tuesday, September 10, 2019
5:30-8:00 PM
Wisner-Pilger High School,
Fine Arts Auditorium,
801 18th St N, Wisner, NE 68791

NDOT will give a formal presentation starting at 6:00 PM, with an open house to follow until 8:00 PM.

S-275-6(1052) Norfolk-Wisner; C.N. 32319

The Nebraska Department of Transportation (NDOT) will hold a public information meeting regarding roadway improvements to approximately 16 miles of U.S. Highway 275 (US-275), located in Stanton and Cuming Counties, Nebraska. The public information meeting will be held at Wisner-Pilger High School in the Fine Arts Auditorium, 801 18th St N in Wisner, NE on Tuesday, September 10, 2019 from 5:30 PM to 8:00 PM. A formal presentation will begin at 6:00 PM, with an open house to follow.

Identified as Norfolk - Wisner, the proposed project would expand the existing two-lane highway to a four-lane expressway. The project begins 8.5 miles east of Norfolk, approximately 0.30 mile west of the intersection of US-275 and Nebraska Highway 57 (N-57) at mile marker (MM) 85.80 and extends east and south to the west side of Wisner at MM 101.79, where it ties into the existing US-275 four-lane roadway.

The purpose of the project is to:

•Fulfill legislative intent to continue development of the expressway system identified in the 1988 Nebraska Highway Needs Study.

•Improve regional connectivity for vehicles in northeast Nebraska, including commercial vehicles, by providing important expressway connections with N-57, Nebraska Highway 15 (N-15) & Nebraska Highway 51 (N-51), while maintaining convenient highway access for communities within the area.

•Reduce the annual corridor delay of 477,300 vehicle hours between Norfolk and Wisner, which is expected to worsen as traffic volumes increase in this area.

•Maximize use of existing transportation infrastructure, including connecting highways, and existing right-of-way (ROW) and improve the reliability and condition of existing facilities.

The improvements would expand the existing two-lane highway to a four-lane expressway by constructing a new, parallel two-lane roadway, including drainage structures, adjacent to the existing US-275. The existing two lanes of US-275 would be resurfaced and bridges would be repaired or replaced as needed. In addition to mainline US-275 construction, the project may include improvements at the US-275 intersections with N-57, N-15 and N-51, as well as various county roads.

This project would require the acquisition of additional property rights, which could include new right-of-way (ROW), control of access (CA), permanent easements (PE), and/or temporary easements (TE). If your property is impacted by this project, you will be contacted by a representative once the design footprint has been established. The project would be constructed under traffic, with lane closures controlled by appropriate traffic control devices and practices. A detour would not be required. Temporary surfacing may be required to accommodate phased construction. Access to adjacentproperties would be maintained during construction, but may be limited at times due to traffic

Wetland impacts are anticipated and would be mitigated at appropriate sites. The project may impact three potentially historic properties: the former NDOT rest area, located on the north side of US-275 between 571st Avenue and 570th Avenue, the Sharpe Homestead site, located along US-275 in Stanton County, and a farmstead south of US-275 east of Pilger. Impacts to these sites would be handled in accordance to Section 106 of the Historic Preservation Act. The Wisner-Pilger High School track and athletic fields is also within the project area and would likely not be impacted.

Project costs are estimated at $63 million. NDOT has applied for additional federal funding through a Better Utilizing Investments to Leverage Development (BUILD) Grant. The project would be constructed in two segments, the first of which would be US-275 from N-57 to N-15, the second of which would be US-275 from N-15 to Wisner. Construction of the proposed project is based on the availability of funding.

The public information meeting is being held to provide information regarding the project and to receive the public's input. All interested persons are invited to attend, provide comments and ask questions. Project information will be displayed, and personnel from NDOT will be present to answer questions and receive comments.

NDOT will make every reasonable accommodation to provide an accessible meeting facility for all persons. Appropriate provisions for the hearing and visually challenged or persons with Limited English Proficiency (LEP) will be made if NDOT is notified by September 3, 2019.

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Sarah Soula, NDOT Public Involvement
P.O. Box 94759,
Lincoln, NE 68509-4759
sarah.soula@nebraska.gov
tel (402) 479-4871
fax (402) 479-3989

Information regarding the proposed project will be available on the NDOT website at https://dot.nebraska.gov/pr ojects/future-projects/ by clicking on "Norfolk - Wisner". For those without internet access, information may be obtained at NDOT Headquarters, 1500 Highway 2, Lincoln, NE, or by contacting:

Kevin Domogalla,
NDOT District 3 Engineer
408 N 13th St,
Norfolk, NE 68701-3714
kevin.domogalla@nebraska.gov
tel (402) 370-3470

(August 26, 2019)

RECEIVED
AUG 28 2019
COMMUNICATION DIVISION

HIGHWAY 275 MEETING IN WISNER

NEBRASKA DEPARTMENT OF TRANSPORTATION NOTICE OF PUBLIC INFORMATION MEETING

Tuesday, September 10, 2019; 5:30 – 8:00 PM
Wisner-Pilger High School, Fine Arts Auditorium, 801 18th St N, Wisner, NE 68791

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S-275-6(1052) Norfolk – Wisner; C.N. 32319

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- Reduce the annual corridor delay of 477,300 vehicle hours between Norfolk and Wisner, which is expected to worsen as traffic volumes increase in this area.
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Wetland impacts are anticipated and would be mitigated at appropriate sites. The project may impact three potentially historic properties: the former NDOT rest area, located on the north side of US-275 between 571st Avenue and 570th Avenue, the Sharpe Homestead site, located along US-275 in Stanton County, and a farmstead south of US-275 east of Pilger. Impacts to these sites would be handled in accordance to Section 106 of the Historic Preservation Act. The Wisner-Pilger High School track and athletic fields is also within the project area and would likely not be impacted.

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Sarah Soula, NDOT Public Involvement
P.O. Box 94759, Lincoln, NE 68509-4759
sarah.soula@nebraska.gov
tel (402) 479-4871
fax (402) 479-3989

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Kevin Domogalla, NDOT District 3 Engineer
408 N 13th St, Norfolk, NE 68701-3714
kevin.domogalla@nebraska.gov
tel (402) 370-3470

ZNEZ 8-21-3

PROOF OF PUBLICATION

STATE OF NEBRASKA)ss
COUNTY OF CUMING

Edwina Nissen, being duly sworn, deposes and says she is Bookkeeper, of THE WEST POINT NEWS, a weekly newspaper printed and published in Cuming County, State of Nebraska, and of a general circulation of more than 300 copies weekly; has been published within said County for more than 52 successive weeks immediately prior to the first publication of the annexed notice, and is printed wholly or in part in an office maintained at the place of publication. And that the annexed notice has been published One consecutive weeks in said newspaper, the publication thereof having been made on 8-21-2019

Edwina Nissen
Bookkeeper

Subscribed and sworn to before me

this 22nd day of August, 2019

Bonnie Vogltanz
NOTARY PUBLIC Co. Clerk Cuming

Printer's Fee $ 89.42

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA
Good Life. Great Journey
DEPARTMENT OF TRANSPORTATION

PUBLIC COMMENT SHEET

NDOT District 3

S-275-6(1052) Norfolk – Wisner; C.N. 32319

*Please submit your written comments by **September 25, 2019**.*

Return to: *Sarah Soula*
Nebraska Department of Transportation
Public Involvement
P.O. Box 94759
Lincoln, NE 68509-4759

sarah.soula@nebraska.gov
(402) 479-4871 Office
(402) 479-3989 Fax

My concern involves our road 569th Avenue being lowered and such they would have to move our county road toward our house to make it easier to get into the sub station on the North East area of the highway.

We have build a nice shelter belt & pond on our east property which helps with the noise & dust from semis going to the feed lot.

If we didn't have the pond where it is on the flood in March we would have lost our lane way.

Cutting down the road will make it a accident waiting to happen As it is now you pull out & you can't see over the hill from the east the traffic is right on you.

To me if you do decide to lower it It would make more sense to have the substation entrance come in from the North.

The Nebraska Department of Transportation and the Federal Highway Administration appreciates your input. Your comments, questions, and suggestions will be reviewed by appropriate personnel. Thank you for your participation.

Date: 9/10/19
Name: Dennis D. Timperley
Street Address: 84081 569th Avenue
City, State, Zip: Stanton NE 68779
Phone: 402-439-5096
Email: timperley@stanton.net

Written comments submitted to NDOT are considered public information and may be shared with appropriate local, state, or federal agencies, as well as the general public, as part of the project development process.

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

Dennis D. Timperley
84081 59th Ave.
Stanton, NE 68779

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear Dennis:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. In response to your concerns about your shelter belt and pond, at this time, the US-275 Norfolk to Wisner project footprint is still being determined.

NDOT is still evaluating preliminary impacts for both a north alternative and a south alternative as part of the Environmental Assessment process per the National Environmental Policy Act (NEPA). This process oversees and regulates impacts to many different resources along the project that must all be taken into consideration. Further coordination with other agencies will be required with this project.

As part of the analysis, the impacts to landowners and their property are considered. NDOT takes steps in avoiding and minimizing impacts to property owners adjacent to the highway as part of the design process.

Preliminary impacts and more design detail would be developed over the next few months and would be shared at the public hearing in 2020.

We appreciate your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
Lincoln, NE 68509-4759
Kyle.Keller@nebraska.gov
(402) 479-3674

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA
Good Life. Great Journey
DEPARTMENT OF TRANSPORTATION

PUBLIC COMMENT SHEET

NDOT District 3

S-275-6(1052) Norfolk – Wisner; C.N. 32319

*Please submit your written comments by **September 25, 2019**.*

Return to: *Sarah Soula*
Nebraska Department of Transportation
Public Involvement
P.O. Box 94759
Lincoln, NE 68509-4759

sarah.soula@nebraska.gov
(402) 479-4871 Office
(402) 479-3989 Fax

We own a business on Main Street in Wisner. By passing the town will negatively impact our business – to the point that we would not be able to continue.

Wisner True Value + Lumber

The Nebraska Department of Transportation and the Federal Highway Administration appreciates your input. Your comments, questions, and suggestions will be reviewed by appropriate personnel. Thank you for your participation.

Date: 9-10-19
Name: Stan + Marilyn Ortmeier
Street Address: 301 Lambrecht St.
City, State, Zip: Beemer, Ne 68716
Phone: 402-528-3848
Email: marilyn.ortmeier@icloud.com

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NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

Stan and Marilyn Ortmeier
301 Lambrecht St.
Beemer, NE 68716

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear Stan and Marilyn:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. In response to your comment regarding a negative impact to your business if a bypass were constructed, a bypass around Wisner, NE is not within the scope of this project.

This project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity and provide convenient highway access for communities within the area. A new alignment off the existing US-275 alignment would not meet the project's purpose. A bypass around Wisner is not within the project scope and the funding required for this is not available.

Preliminary impacts and more design detail would be developed over the next few months and would be shared at the public hearing in 2020.

We appreciate your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
Lincoln, NE 68509-4759
Kyle.Keller@nebraska.gov
(402) 479-3674

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA
Good Life. Great Journey
DEPARTMENT OF TRANSPORTATION

PUBLIC COMMENT SHEET

NDOT District 3

S-275-6(1052) Norfolk – Wisner; C.N. 32319

- *Please submit your written comments by* ***September 25, 2019.***

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SEP 19 2019
COMMUNICATION DIVISION

Return to: *Sarah Soula*
Nebraska Department of Transportation
Public Involvement
P.O. Box 94759
Lincoln, NE 68509-4759

sarah.soula@nebraska.gov
(402) 479-4871 Office
(402) 479-3989 Fax

Thank you for being in Wisner on Sept. 10 2019 to explain the highway 275 project. I realize that this segment does not deal with Wisner proper, but I want to say that it is vital that Highway 275 continues to travel through the main Street of Wisner. My business, Harms Antique Way, survives on highway traffic and I would be forced to close my doors if highway 275 would by pass Wisner.

I grew up in South central Nebraska and I watched towns dry up as highway 81 by passed them (Hebron, Geneva, Chester). There are many examples in Northeast Nebraska as well such as Hooper and Valley where the by pass was not helpful to the down town businesses.

Thank you for considering my comments.

Alan Harms

The Nebraska Department of Transportation and the Federal Highway Administration appreciates your input. Your comments, questions, and suggestions will be reviewed by appropriate personnel. Thank you for your participation.

Date: 9-15-19
Name: Alan Harms
Street Address: Box 732
City, State, Zip: Wisner, NE 68791
Phone: 402-380-0909
Email: harmsantiqueway@gmail.com

Written comments submitted to NDOT are considered public information and may be shared with appropriate local, state, or federal agencies, as well as the general public, as part of the project development process

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

Alan Harms
Box 732
Wisner, NE 68791

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear Alan:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. In response to your comment regarding a negative impact to your business if a bypass were constructed, a bypass around Wisner, NE is not within the scope of this project.

This project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity and provide convenient highway access for communities within the area. A new alignment off the existing US-275 alignment would not meet the project's purpose. A bypass around Wisner is not within the project scope and the funding required for this is not available.

Preliminary impacts and more design detail would be developed over the next few months and would be shared at the public hearing in 2020.

We appreciate your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
Lincoln, NE 68509-4759
Kyle.Keller@nebraska.gov
(402) 479-3674

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DEPARTMENT OF TRANSPORTATION

PUBLIC COMMENT SHEET

NDOT District 3

S-275-6(1052) Norfolk – Wisner; C.N. 32319

Please submit your written comments by ***September 25, 2019.***

RECEIVED
SEP 19 2019
COMMUNICATION DIVISION

Return to: *Sarah Soula*
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Public Involvement
P.O. Box 94759
Lincoln, NE 68509-4759

sarah.soula@nebraska.gov
(402) 479-4871 Office
(402) 479-3989 Fax

After reviewing the US 275 Norfolk - Wisner project, it would seem that the logical location to add the lanes would be on the south side of US Highway 275. There are a number of existing obstacles on the north side such as a substation, acreages, farmsteads, lagoons, cell tower, resident homes etc. vs. the south side. It would appear to save taxpayer dollars as well as the impact on people having to relocate if the lanes were added to the south side of US Highway 275.

The Nebraska Department of Transportation and the Federal Highway Administration appreciates your input. Your comments, questions, and suggestions will be reviewed by appropriate personnel. Thank you for your participation.

Date: 9-16-19
Name: Brett Vahle
Street Address: 57513 839 RD
City, State, Zip: Pilger, NE 68768
Phone: 402-396-3175
Email:

Written comments submitted to NDOT are considered public information and may be shared with appropriate local, state, or federal agencies, as well as the general public, as part of the project development process

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

Brett Vahle
57513 839 Road
Pilger, NE 68768

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear Brett:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. In response to your comment about adding two new lanes to the south side of US-275, NDOT is continuing to evaluate potential impacts of both a north alternative and a south alternative as part of the Environmental Assessment process per the National Environmental Policy Act (NEPA). This process oversees and regulates impacts to many different resources along the project that must all be taken into consideration. Further coordination with other agencies will be required with this project.

Preliminary impacts of both alternatives would be developed over the next few months and would be shared at the public hearing in 2020. During that time, NDOT would like to continue this conversation as more detail about the design will be available.

We appreciate your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
Lincoln, NE 68509-4759
Kyle.Keller@nebraska.gov
(402) 479-3674

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

PUBLIC COMMENT SHEET

NDOT District 3

S-275-6(1052) Norfolk – Wisner; C.N. 32319

*Please submit your written comments by **September 25, 2019**.*

RECEIVED
SEP 17 2019
COMMUNICATION DIVISION

Return to: *Sarah Soula*
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Public Involvement
P.O. Box 94759
Lincoln, NE 68509-4759

sarah.soula@nebraska.gov
(402) 479-4871 Office
(402) 479-3989 Fax

As A Wisner business owner on main Street (Hwy 275) I am happy they are coming through town - ½ of my business is drive by TRAFFIC. Going Around town would force me to close & Try to Sell the 3 buildings I own.

Only concern is TRAFFIC Slow down - Need 1 or 2 maybe even 3 working Stop Lights to control so People can Cross safely & get onto highway safely

I support taking Project to current 4 lane on West end of town. Those who want it to end at Hwy 51 are dreaming - they want it to go Around town. If this happens here we become almost a ghost town As several businesses will be Closing - Loss of RE Taxes, Sales tax, Local Spending Putting more people out of Jobs

The Nebraska Department of Transportation and the Federal Highway Administration appreciates your input. Your comments, questions, and suggestions will be reviewed by appropriate personnel. Thank you for your participation.

Date: 9/11/19
Name: David Fox
Street Address: 813 Avenue E
City, State, Zip: Wisner NE 68791
Phone: 402-529-3575
Email: dfox@gpcom.net

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NEBRASKA

Good Life. Great Journey.

DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

David Fox
813 Avenue E
Wisner, NE 68791

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear David:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. In response to your comment regarding a negative impact to your business if a bypass were constructed, a bypass around Wisner, NE is not within the scope of this project.

This project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity and provide convenient highway access for communities within the area. A new alignment off the existing US-275 alignment would not meet the project's purpose. A bypass around Wisner is not within the project scope and the funding required for this is not available.

As part of this project, NDOT is analyzing the highway-to-highway intersections for improvements and modifications for the expansion to four lanes.

Improvements to traffic signals to the east of the tie-in from the existing two-lane roadway to the four-lane roadway on the west end of the City of Wisner are outside of the scope of the project. NDOT regularly reviews the need for traffic signals and will take your comment into consideration.

We appreciate your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
Lincoln, NE 68509-4759
Kyle.Keller@nebraska.gov
(402) 479-3674

From:	no-reply@nebraska.gov
To:	NDOT, Public Involvement; jon.m.downey@outlook.com
Subject:	Submit Project Comments
Date:	Wednesday, September 11, 2019 10:09:27 AM

Project Name: Norfolk - Wisner

Project URL: https://dot.nebraska.gov/projects/future-projects/norfolk-wisner/

Full Name: Jon Downey

Email: jon.m.downey@outlook.com

Address:
2606 W. Prospect Ave
NORFOLK, NE 68701-3246

Comments: This is a great project. I travel this road regularly and the amount of time i lose on this stretch of road is significant. I look forward to your every effort to move ahead with this project expeditiously.

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

John Downey
2606 W Prospect Ave.
Norfolk, NE 68701-3246

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear John:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. In response to your comment supporting this project, NDOT will continue to work towards completing the expressway system on US-275. Design alternatives would be developed over the next few months and would be shared at the public hearing in 2020. NDOT looks forward to sharing this information and your continued support.

We appreciate your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
Lincoln, NE 68509-4759
Kyle.Keller@nebraska.gov
(402) 479-3674

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA
Good Life. Great Journey
DEPARTMENT OF TRANSPORTATION

PUBLIC COMMENT SHEET

NDOT District 3

S-275-6(1052) Norfolk – Wisner; C.N. 32319

Please submit your written comments by ***September 25, 2019.***

RECEIVED
SEP 17 2019
COMMUNICATION DIVISION

Return to: *Sarah Soula*
Nebraska Department of Transportation
Public Involvement
P.O. Box 94759
Lincoln, NE 68509-4759

sarah.soula@nebraska.gov
(402) 479-4871 Office
(402) 479-3989 Fax

Dear Nebraska DOT,

I recently attended the Highway 275, Norfolk to Wisner public meeting on September 10, 2019 in Wisner.

As part of the construction on Highway 275, I would like the DOT to consider Free Right access to those vehicles entering from:

* the south on Highway 15 at the Pilger corner
* the north on Highway 15 at the Wayne corner
* at the Highway 51/275 junction west of Wisner.

This would be particularly beneficial to those of us who traverse these highways on a regular basis.

In addition, during construction of Highway 275 on this portion of road, please consider limiting the impact of the dislocation of residences on the north side of Highway 275. There are no residences on the south side of that road between Pilger & Wisner.

I appreciate the time and effort the DOT has put into obtaining the public's comments on the construction of this highway. Thank you.

The Nebraska Department of Transportation and the Federal Highway Administration appreciates your input. Your comments, questions, and suggestions will be reviewed by appropriate personnel. Thank you for your participation.

Date: September 11, 2019
Name: Larry E. Thompson
Street Address: 2168 2nd Rd
City, State, Zip: Wisner, NE 68791
Phone: 402-640-4785
Email: letblt@yahoo.com

Written comments submitted to NDOT are considered public information and may be shared with appropriate local, state, or federal agencies, as well as the general public, as part of the project development process.

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

Larry E. Thompson
2168 2nd Road
Wisner, NE 68791

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear Larry:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. In regard to your comments about free rights, as part of the design process, NDOT is evaluating traffic warrants for possible turn lanes, including free rights at the junctions and intersections.

In response to your comment regarding limiting impacts to the north side of US-275 and adding two new lanes to the south side of US-275, NDOT is continuing to evaluate potential impacts to both a north alternative and a south alternative as part of the Environmental Assessment process per the National Environmental Policy Act (NEPA). This process oversees and regulates impacts to many different resources along the project that must all be taken into consideration. Further coordination with other agencies will be required with this project.

As part of the analysis, the impacts to landowners and their property are considered. NDOT takes steps in avoiding and minimizing impacts to property owners adjacent to the highway as part of the design process.

Preliminary impacts and more design detail of both alternatives would be developed over the next few months and would be shared at the public hearing in 2020.

We appreciate your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
Lincoln, NE 68509-4759
Kyle.Keller@nebraska.gov
(402) 479-3674

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

PUBLIC COMMENT SHEET

NDOT District 3

S-275-6(1052) Norfolk – Wisner; C.N. 32319

Please submit your written comments by ***September 25, 2019.***

RECEIVED
SEP 17 2019
COMMUNICATION DIVISION

Return to: *Sarah Soula*
Nebraska Department of Transportation
Public Involvement
P.O. Box 94759
Lincoln, NE 68509-4759

sarah.soula@nebraska.gov
(402) 479-4871 Office
(402) 479-3989 Fax

The highway (275) from the Stanton Spur (57) to Norfolk, is a delight to drive on! I expect the expansion, from Stanton Spur to Wisner will be equally high quality and as easy to drive on.

Avoid going through all towns on route! Why ruin a good 70 mph expressway by creating irritating bottlenecks in all these little towns? That road around Hooper is wonderful!

Concern about intersection of Hwy 275 • Stanton County Road 573 Ave (at Humbug Bridge). How will redesign affect our access to highway, during construction?

There's a lot of old people driving 275 (Stanton County) Consideration must be given to their special problems a safety.

Traffic seems to increase on Hwy 275 every week. It's past time to upgrade our beloved old highway! Farm machinery will always be a factor on 275. Care must be taken to keep farmers safe!

The Nebraska Department of Transportation and the Federal Highway Administration appreciates your input. Your comments, questions, and suggestions will be reviewed by appropriate personnel. Thank you for your participation.



Ms. Sandra Kennedy
84461 573 Ave
Pilger, NE 68768-4077

Date:
Name: Sandra Kennedy
Street Address:
City, State, Zip:
Phone: 1-402-396-3248
Email:

Written comments submitted to NDOT are considered public information and may be shared with appropriate local, state, or federal agencies, as well as the general public, as part of the project development process.

NEBRASKA

Good Life. Great Journey.

DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

Sandra Kennedy
84461 573 Ave
Pilger, NE 68768-4077

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear Sandra:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. Safety to the travelling public is the number one concern and consideration for the NDOT regarding the Nebraska State Highway System. As part of this project, known safety issues will be addressed, and NDOT will incorporate safety improvements.

This project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity and provide convenient highway access for communities within the area. A new alignment off the existing US-275 alignment would not meet the project's purpose. A bypass around Wisner is not within the project scope and the funding required for this is not available.

In regard to your comment about access at the intersection of US-275 and County Road 573 Avenue, the project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Access to adjacent properties will be maintained during construction but may be limited at times due to construction phasing requirements. A US-275 detour would not be required.

NDOT is still evaluating preliminary impacts for both a north alternative and a south alternative as part of the Environmental Assessment process per the National Environmental Policy Act (NEPA). This process oversees and regulates impacts to many different resources along the project that must all be taken into consideration. Further coordination with other agencies will be required with this project.

Preliminary impacts of both alternatives would be developed over the next few months and would be shared at the public hearing in 2020.

We appreciate your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
Lincoln, NE 68509-4759
Kyle.Keller@nebraska.gov
(402) 479-3674

Kyle Schneweis, P.E., Director
Department of Transportation
1500 Highway 2
PO Box 94759
Lincoln, NE 68509-4759
OFFICE 402-471-4567 FAX 402-479-4325
NDOT.ContactUs@nebraska.gov
dot.nebraska.gov

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA
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DEPARTMENT OF TRANSPORTATION

PUBLIC COMMENT SHEET

NDOT District 3

S-275-6(1052) Norfolk – Wisner; C.N. 32319

*Please submit your written comments by **September 25, 2019**.*

Return to: *Sarah Soula*
Nebraska Department of Transportation
Public Involvement
P.O. Box 94759
Lincoln, NE 68509-4759

sarah.soula@nebraska.gov
(402) 479-4871 Office
(402) 479-3989 Fax

RECEIVED
SEP 20 2019
COMMUNICATION DIVISION

PT W1/2 3-23-3
pilger precinct
This land may be avaliable for wet lands

Contact us - Russ Loberg
402-529-3255

The Nebraska Department of Transportation and the Federal Highway Administration appreciates your input. Your comments, questions, and suggestions will be reviewed by appropriate personnel. Thank you for your participation.

Date: Sept 17 2019
Name: Russ Loberg
Street Address: 421 11th St
City, State, Zip: Wisner NE 68791
Phone: 402-529-3255
Email:

Written comments submitted to NDOT are considered public information and may be shared with appropriate local, state, or federal agencies, as well as the general public, as part of the project development process.

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LINCOLN, NE 68509-9983

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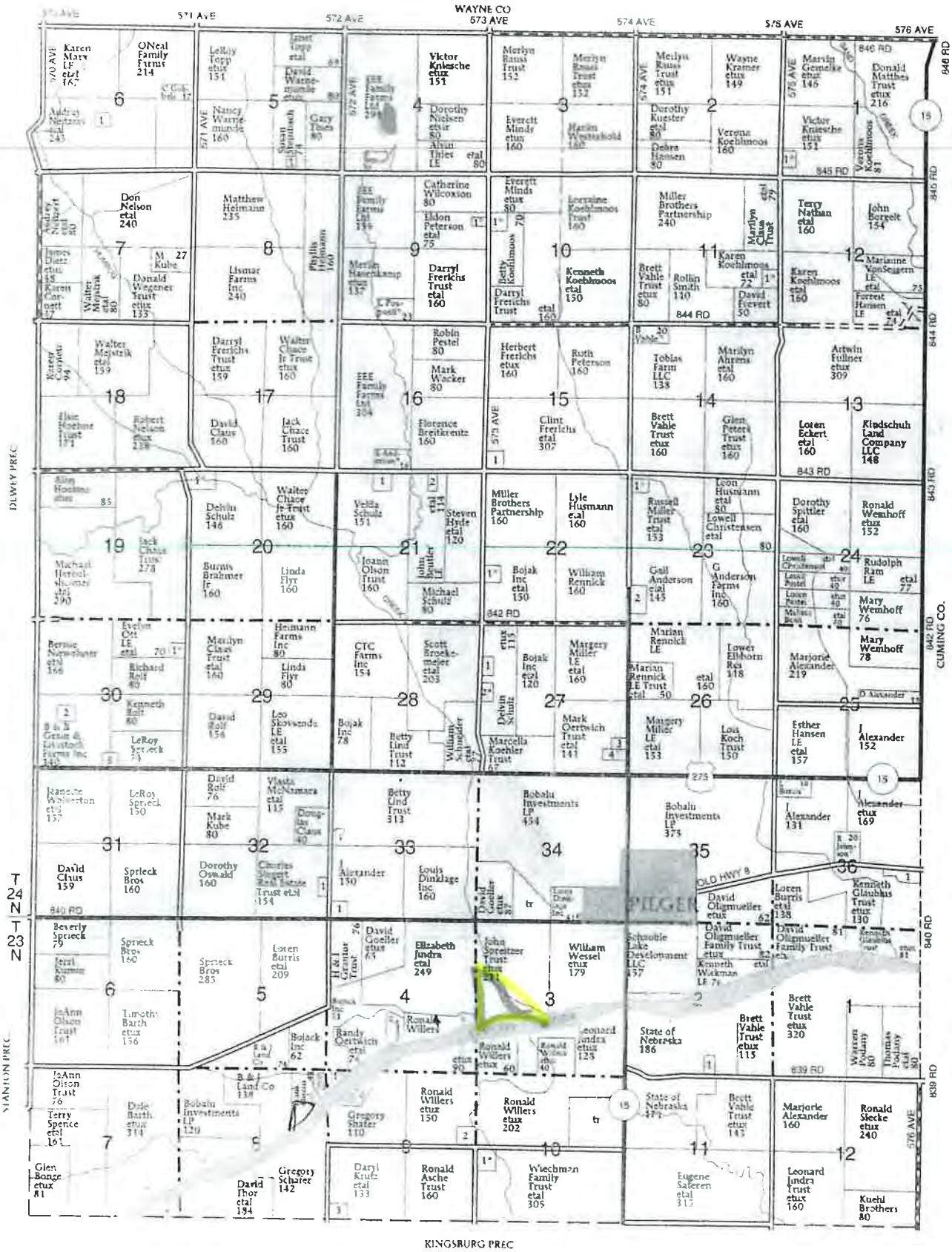
(Tape closed - Do not staple)

T-23-24-N

PILGER PLAT

R-3-E



PILGER PRECINCT

SECTION 1N
1 Uhing, Gerard 9

SECTION 2S
1 Gardels, Bruce 9

SECTION 5N
1 Connealy, Ann 6

SECTION 6N
1 Ronk, Lyle 10

SECTION 9N
1. Kennedy, Gerald 5

SECTION 9S
1 Oertwich, Randy 21
2. Hastings, Jeffrey 10
3 Oertwich, Douglas 7

SECTION 10N
1. Koehlmoos, Gary 10

SECTION 10S
1. Kneifl, Sidney 10

SECTION 11N
1. Kahlo, Chris 8

SECTION 15
1. Vondrak, Aaron 13

SECTION 20
1. Moje, Keith 14

SECTION 21
1. Ecker, Jeffrey 9
2. Beutler, Marvin 6

SECTION 22
1. Fink, Douglas 7

SECTION 23
1. Ecker Trust, Loren 7
2. Oswald Jr, Daniel 15

SECTION 27
1. Schulz, Gerry 5
2. Buhrman, Regina 5
3. Village of Pilger 6
4. Oertwich, Randy 5

SECTION 30
1. Nadrchal, LaVern 10
2. Chace, Jeff 10
3. County of Stanton 8

SECTION 32
1 Heimann, Matthew 6

SECTION 33
1 Thor, Timothy 10

SECTION 36
1. Kelly, Eugene 14

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380 - 4141

PLAT OF SURVEY

LOCATED IN THE W1/2 OF SEC. 3, T23N, R3E OF 6TH P.M. STANTON COUNTY, NEBRASKA



I HEREBY CERTIFY THAT THIS SURVEYING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM DULY REGISTERED LAND SURVEYOR UNDER THE LAWS OF STATE OF NEBRASKA.

FRED M. FRANKLIN R.L.S. 525

Alpha Land Surveying

SOUTH SIOUX CITY, NEBRASKA
OAKLAND, NEBRASKA
BLAIR, NEBRASKA
NORFOLK, NEBRASKA
OMAHA, NEBRASKA
website - www.alphalandsurveying.com
email - alphalandsurveying@gmail.com

SINCE 1996

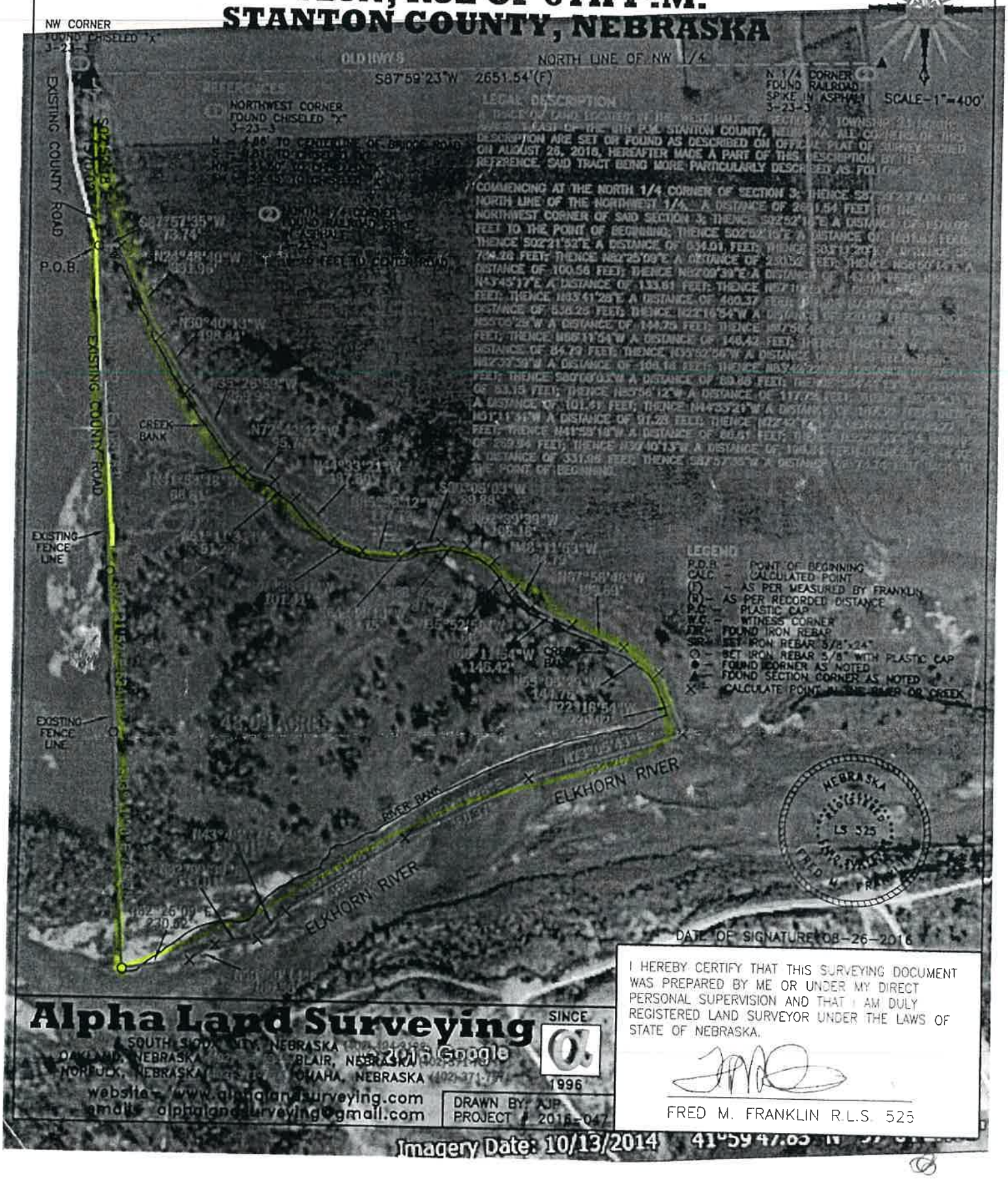
DRAWN BY: AJP
PROJECT # 2016-047

Imagery Date: 10/13/2014 41°59'47.83" N

380 - 2141

PLAT OF SURVEY

LOCATED IN THE W1/2 OF SEC. 3, T23N, R3E OF 6TH P.M. STANTON COUNTY, NEBRASKA



US-275 NORFOLK - WISNER

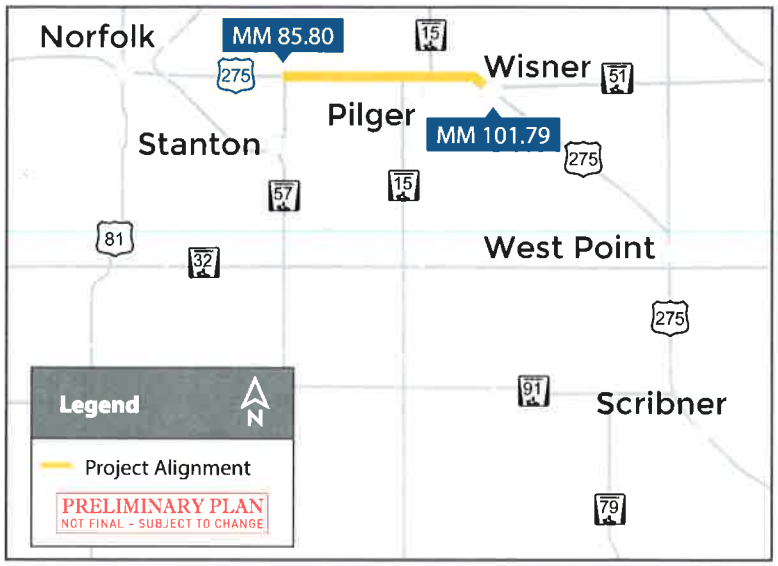
Public Information Meeting

September 10, 2019
S-275-6(1052) Norfolk – Wisner; C.N. 32319

The Nebraska Department of Transportation (NDOT) and the Federal Highway Administration (FHWA) are developing an Environmental Assessment per the National Environmental Policy Act (NEPA) and are seeking input on proposed improvements on approximately 16 miles of U.S. Highway 275 (US-275) in Stanton and Cuming Counties, Nebraska.

PROJECT LOCATION

The proposed project, known as Norfolk – Wisner, would expand the existing two-lane highway to a four-lane expressway. The project begins 8.5 miles east of Norfolk, approximately 0.30 mile west of the intersection of US-275 and Nebraska Highway 57 (N-57) at mile marker (MM) 85.80 and extends east and south to the west side of Wisner, Nebraska at MM 101.79, where it ties into the existing US-275 four-lane roadway.



PROJECT PURPOSE

- Fulfill legislative intent to continue development of the expressway system identified in the 1988 Nebraska Highway Needs Study.
- Improve regional connectivity for vehicles in northeast Nebraska, including commercial vehicles, by providing important expressway connections with N-57, Nebraska Highway 15 (N-15) & Nebraska Highway 51 (N-51), while maintaining convenient highway access for communities within the area.
- Reduce the annual corridor delay of 477,300 vehicle hours between Norfolk and Wisner, which is expected to worsen as traffic volumes increase in this area.
- Maximize use of existing transportation infrastructure, including connecting highways, and existing right-of-way (ROW) and improve the reliability and condition of existing facilities.

SCOPE OF WORK

The improvements would expand the existing two-lane highway to a four-lane expressway by constructing a new, parallel two-lane roadway, including drainage structures, adjacent to the existing US-275. The existing two lanes of US-275 would be resurfaced and bridges would be repaired or replaced as needed. In addition to mainline US-275 construction, the project may include improvements at the US-275 intersections with N-57, N-15 and N-51, as well as various county roads.

IMPACTS

This project would require the acquisition of additional property rights, which could include new right-of-way (ROW), control of access (CA), permanent easements (PE), and/or temporary easements (TE). If your property is impacted by this project, you will be contacted by a representative once the design footprint has been established. Access to adjacent properties would be maintained during construction, but may be limited at times due to traffic phasing requirements.

Wetland impacts are anticipated and would be mitigated at appropriate sites. The project may impact two potentially historic properties: the former NDOT rest area, located on the north side of US-275 between 571st Avenue and 570th Avenue, and the Sharpe Homestead site, located along US-275 in Stanton County. Impacts to these sites would be handled in accordance with Section 106 of the Historic Preservation Act. The Wisner-Pilger High School track and athletic fields are also within the project area and would likely not be impacted.

ACCOMMODATION OF TRAFFIC

The project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Temporary surfacing may be required to accommodate phased construction. A US-275 detour would not be required.

SCHEDULE & COST

Project costs are estimated at $63 million. NDOT has applied for additional federal funding through a Better Utilizing Investments to Leverage Development (BUILD) Grant. The project would be constructed in two segments, the first of which would be US-275 from N-57 to the east intersection of N-15, the second of which would be US-275 from N-15 to Wisner. Construction of the proposed project is based on the availability of funding.

FEEDBACK

Comments will be collected through September 25, 2019 and should be submitted to:

Sarah Soula
NDOT Public Involvement
P.O. Box 94759
Lincoln, NE 68509-4759

email: sarah.soula@nebraska.gov
tel: 402-479-4871
fax: 402-479-3989

Information regarding the proposed project is available on the NDOT website at **https://dot.nebraska.gov/projects/future-projects/** by clicking on "Norfolk - Wisner".

For those without internet access, information may be obtained at NDOT Headquarters, 1500 Highway 2, Lincoln, NE, or by contacting:

Kevin Domogalla
NDOT District 3 Engineer
408 N 13th St
Norfolk, NE 68701-3714

email: kevin.domogalla@nebraska.gov
tel: 402-370-3470

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DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

Russ Loberg
421 16th Street
Wisner, NE 68791

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear Russ:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. Offsetting unavoidable wetland impacts is an important component of the delivery of a project. A representative from NDOT will be in contact with you in regards to the property you referenced.

The property would first undergo preliminary evaluation for viability as a wetland site. Additional field survey and examination may be required. Any steps towards acquisition of the property would follow state and federal regulations.

We appreciate this opportunity to discuss wetlands mitigation further and your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
Lincoln, NE 68509-4759
Kyle.Keller@nebraska.gov
(402) 479-3674

Comments: S-275-6(1052)Norfolk - Wisner; C.N. 32319
To: Sarah Soula
Nebraska Department of Transportation
Public Involvement
P.O. Box 94759
Lincoln, NE 68509

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I am against directing Hwy 275, 4-lane traffic through Wisner. The truck traffic is constant now, it will only continue to increase. The intersection of 17th/18th street and Hwy 275 is extremely dangerous now. The traffic to/from the high school has increased drastically in the last 20 years. Moving the grade school to the Hwy 275 location has added additional traffic. Turning left into the entrance to the grade school and Dollar General at 21st Circle is a dangerous place to stop to turn left. As well as 17th/18th St and Hwy 275.

Traffic needs to start slowing down at Hwy 275 and Hwy51 junction. There needs to be turning lanes and the traffic needs to be slowed down for the amount of traffic that currently travel Hwy 275 and it will continue to get heavier. Turning left onto Hwy 275 or off is difficult and dangerous. My husband and I were rear ended on Main street waiting to turn left at 14th St. on a Sunday afternoon. I know of others that have been rear ended on Main St.

The stop light at 10th street is ignored because many people never realize it is there. I ask the light be changed to cover both directions 10 years ago and have a clicker for sight impaired people (my father). I was told the city/state didn't want to change the light as this old style was grandfathered in. The current light is worthless in slowing traffic down or any other purpose. You will need to add 3 stop lights in Wisner to slow traffic down and allow traffic to turn left onto/off of Hwy 275 at the intersections of 17/18th street, 13th street and 9th street . You also have truck traffic turning at 10th street to get into/out of the elevator.

Parking on Main St is necessary for the various businesses from 9th street to 11th street. Morning and noon time it is difficult to squeeze into the parking spots with trucks and cars driving more than 25 MPH in the next lane. This is especially a major problem around the Senior Center between 10th and 11th street.

Construction of the 4-lane should stop at Hwy 51 in case you decide 15-20 years from now that the road should go north around Wisner. Having 4 lane from Hwy 15 into Wisner is not a good idea at this time. It just speeds the traffic up for a short distance and then you go into a dangerous stretch of Hwy west of Pilger. I see too many near accidents by people in a hurry to pass from Stanton spur to Wisner. The bridge east of mile-marker 100 on Hwy 275 is a narrow, accident, death trap. I know it would have added cost to go north of Wisner but it is not practical for the future to think it will work to allow that much traffic in a congested, small area like the Main St of Wisner.

Have you looked at going south of Pilger on Hwy 15 to Hwy 30 or cut a new road over to Scribner. Like the new road around Hooper when that section of Hwy 275 four-lane was constructed. Would this avoid the wetlands around West Point and all the flooding that occurs along Hwy275? I know new bridges across the Elkhorn River is expensive but the old bridges aren't currently handling the flow of the Elkhorn and are suffering future washouts on the approaches as the Elkhorn is washing out more of the current river banks. The loss of an old bridge is a greater economic loss to a small community like Stanton, Wisner and Pilger than any traffic that will stop to buy something. A round trip to cross another bridge can get expensive during the disruptions that we have faced during the last 10 years.

September 20, 2019

Beverly Buhrman
2385 2nd Road 402/529-6761
Wisner, NE 68791 bbbuhrman@live.com

NEBRASKA

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DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

Beverly Buhrman
2385 2nd Road
Wisner, NE 68791

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear Beverly Buhrman:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. In response to your comment on constructing a bypass, a bypass around Wisner, NE is not within the scope of this project.

This project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity and provide convenient highway access for communities within the area. A new alignment off the existing US-275 alignment or a bypass around Wisner would not meet the project's purpose, is not within the project scope, and the funding required for this is not available.

Safety to the travelling public is the number one concern and consideration for the NDOT regarding the Nebraska State Highway System. As part of this project, known safety issues will be addressed, and NDOT will incorporate safety improvements. The majority of the project would be designed and posted for expressway speeds of 70 miles per hour. The speed limit would be reduced as traffic approaches Wisner. NDOT will continue to reevaluate speed limits at regular intervals after the completion of this proposed project.

In regard to your concern about the safety and operation of the 21st Street and 17th / 18th Street intersections along US-275, NDOT is coordinating with Wisner-Pilger Schools and is evaluating options to improve these intersections, such as dedicated turn lanes, for school operations and other US-275 traffic. Improving this area near the school is another reason NDOT is continuing the expansion to four lanes east of N-51. The additional through lanes and dedicated turn lanes will reduce the potential for accidents related to turning movements in this area.

Improvements to traffic signals to the east of the tie-in from the existing two-lane roadway to the four-lane roadway on the west end of the City of Wisner are outside of the scope of the project. NDOT regularly reviews the need for traffic signals and will take your comments into consideration.

Kyle Schneweis, P.E., Director
Department of Transportation
1500 Highway 2
PO Box 94759
Lincoln, NE 68509-4759
OFFICE 402-471-4567 FAX 402-479-4325
NDOT.ContactUs@nebraska.gov
dot.nebraska.gov

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DEPARTMENT OF TRANSPORTATION

With regard to your comment about bridge washouts, NDOT would analyze the existing and proposed drainage conditions to verify that the project would not negatively impact the existing drainage conditions in the area. NDOT is evaluating river flows and bridge conditions along the project to determine appropriate improvements.

We appreciate your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
Lincoln, NE 68509-4759
Kyle.Keller@nebraska.gov
(402) 479-3674

From:	Bui, Tony
To:	Keller, Kyle; Veldhouse, Kristen
Subject:	FW: S-275-6(1052) - Wisner; C.N. 32319
Date:	Wednesday, September 25, 2019 9:06:10 AM

Tony Bui

Public Involvement Specialist

Nebraska Department of Transportation

OFFICE 402-479-4994

CELL 402-326-2316

tony.bui@nebraska.gov

From: Soula, Sarah <sarah.soula@nebraska.gov>
Sent: Wednesday, September 25, 2019 8:54 AM
To: Bui, Tony <tony.bui@nebraska.gov>
Subject: FW: S-275-6(1052) - Wisner; C.N. 32319

Sarah Soula

Public Involvement Manager

Nebraska Department of Transportation

OFFICE 402-479-4871

sarah.soula@nebraska.gov

From: Jody Woldt <jwoldt1981@yahoo.com>
Sent: Monday, September 23, 2019 2:54 PM
To: Soula, Sarah <sarah.soula@nebraska.gov>
Subject: S-275-6(1052) - Wisner; C.N. 32319

I would love to see this segment completed. I also would love to see it completed all the way to Omaha, including Wisner to Hooper. I have no concerns with this segment other than concern about whether it will effect 21st Street from 275 north as that is access to my work. I believe there should be easy access onto 275 from both segments of highway 15 possibly via yield signs instead of hard stops.

My future concern would be whether or not to bypass Wisner and I think it should NOT go down Wisner's Main Street or Avenue E. A bypass either north or south would be preferable for me. I live near the possible north route and own property on the south route so both could potentially impact me but I truly do not want to see traffic on this roadway have to slow down to 25 or even 40 mph. They don't obey the speed limits now. It would only be worse then. Thank you for hearing my concerns.

Jody Woldt

Sent from Yahoo Mail for iPhon

From:	Bui, Tony
To:	Keller, Kyle; Veldhouse, Kristen
Subject:	FW: S-275-6(1052) - Wisner; C.N. 32319
Date:	Tuesday, October 29, 2019 1:21:04 PM
Attachments:	US275 N-W_CommentResponseLetter_JodyWoldt_20191029.pdf

Tony Bui

Public Involvement Specialist

Nebraska Department of Transportation

OFFICE 402-479-4994

CELL 402-326-2316

tony.bui@nebraska.gov

From: Soula, Sarah <sarah.soula@nebraska.gov>
Sent: Tuesday, October 29, 2019 1:19 PM
To: Jody Woldt <jwoldt1981@yahoo.com>
Cc: Bui, Tony <tony.bui@nebraska.gov>
Subject: RE: S-275-6(1052) - Wisner; C.N. 32319

Jody,
We appreciate your feedback, please see attached response.

Sarah Soula

Public Involvement Manager

Nebraska Department of Transportation

OFFICE 402-479-4871

sarah.soula@nebraska.gov

From: Jody Woldt <jwoldt1981@yahoo.com>
Sent: Monday, September 23, 2019 2:54 PM
To: Soula, Sarah <sarah.soula@nebraska.gov>
Subject: S-275-6(1052) - Wisner; C.N. 32319

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My future concern would be whether or not to bypass Wisner and I think it should NOT go down Wisner's Main Street or Avenue E. A bypass either north or south would be preferable for me. I live near the possible north route and own property on the south route so both could

potentially impact me but I truly do not want to see traffic on this roadway have to slow down to 25 or even 40 mph. They don't obey the speed limits now. It would only be worse then. Thank you for hearing my concerns.

Jody Woldt

Sent from Yahoo Mail for iPhon

NEBRASKA

Good Life. Great Journey.

DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

Jody Woldt

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear Jody:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. In response to your comment supporting this project, NDOT will continue to work towards completing the expressway system on US-275.

In regard to your comment about the 21st Street intersection, NDOT is coordinating with Wisner-Pilger Schools and is evaluating options to improve this intersection, such as dedicated turn lanes, for the school operations and US-275 traffic.

In response to your comment about access to US-275 from N-15, NDOT is analyzing the highway-to-highway intersections for improvements, such as turn lanes, traffic control devices, and additional modifications for the expansion to four lanes.

This project would build a four-lane expressway between Norfolk and Wisner. It would maximize use of the existing transportation infrastructure, extend the expressway system, improve regional connectivity and provide convenient highway access for communities within the area. A new alignment off the existing US-275 alignment would not meet the project's purpose. A bypass around Wisner is not within the project scope and the funding required for this is not available.

Preliminary impacts and more design detail would be developed over the next few months and would be shared at the public hearing in 2020.

We appreciate your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
Lincoln, NE 68509-4759
Kyle.Keller@nebraska.gov
(402) 479-3674

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

PUBLIC COMMENT SHEET

NDOT District 3

S-275-6(1052) Norfolk – Wisner; C.N. 32319

Please submit your written comments by ***September 25, 2019.***

RECEIVED
SEP 30 2019
COMMUNICATION DIVISION

Return to: *Sarah Soula*
Nebraska Department of Transportation
Public Involvement
P.O. Box 94759
Lincoln, NE 68509-4759

sarah.soula@nebraska.gov
(402) 479-4871 Office
(402) 479-3989 Fax

my family owns ground at the intersection of 275 & 15

we would like the road on south side.

The Nebraska Department of Transportation and the Federal Highway Administration appreciates your input. Your comments, questions, and suggestions will be reviewed by appropriate personnel. Thank you for your participation.

Date: Sept-23-19
Name: Anthony Wemhoff
Street Address: 84409 574 Ave
City, State, Zip: Pilger NE
Phone: 402-649-0711
Email: anthonywemhoff@gmail.com

Written comments submitted to NDOT are considered public information and may be shared with appropriate local, state, or federal agencies, as well as the general public, as part of the project development process.

NEBRASKA

Good Life. Great Journey.

DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

Anthony Wernhoff
84409 574th Ave
Pilger, NE 68768

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear Anthony:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. In response to your comment regarding adding two new lanes to the south side of US-275, NDOT is continuing to evaluate potential impacts to both a north alternative and a south alternative as part of the Environmental Assessment process per the National Environmental Policy Act (NEPA).

This process oversees and regulates impacts to many different resources along the project that must all be taken into consideration. Further coordination with other agencies will be required with this project. As part of the analysis, the impacts to landowners and their property are considered. NDOT takes steps in avoiding and minimizing impacts to property owners adjacent to the highway as part of the design process.

Preliminary impacts of both alternatives and more design detail would be developed over the next few months and would be shared at the public hearing in 2020.

We appreciate your participation on this project.

Sincerely,

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*Please submit your written comments by **September 25, 2019**.*

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Nebraska Department of Transportation
Public Involvement
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Lincoln, NE 68509-4759

sarah.soula@nebraska.gov
(402) 479-4871 Office
(402) 479-3989 Fax

I am a land owner in Cuming County. My land is located at the intersection of HWY 275 and HWY 15 corner on the east side.
I would prefer to see the HWY 275 project on the south side of the existing HWY. 275.

The Nebraska Department of Transportation and the Federal Highway Administration appreciates your input. Your comments, questions, and suggestions will be reviewed by appropriate personnel. Thank you for your participation.

Date: 9-24-19
Name: Mary Ann L. Wemhoff
Street Address: 57389 838½ Rd.
City, State, Zip: Pilger, Ne. 68768
Phone: 402-649-9843
Email: mlwemhoff@compoint.com

Written comments submitted to NDOT are considered public information and may be shared with appropriate local, state, or federal agencies, as well as the general public, as part of the project development process.

NEBRASKA

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DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

Mary Ann Wernhoff
57389 838 ½ Rd
Pilger, NE 68768

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear Mary Ann:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. In response to your comment regarding adding two new lanes to the south side of US-275, NDOT is continuing to evaluate potential impacts to both a north alternative and a south alternative as part of the Environmental Assessment process per the National Environmental Policy Act (NEPA).

This process oversees and regulates impacts to many different resources along the project that must all be taken into consideration. Further coordination with other agencies will be required with this project. As part of the analysis, the impacts to landowners and their property are considered. NDOT takes steps in avoiding and minimizing impacts to property owners adjacent to the highway as part of the design process.

Preliminary impacts and more design detail would be developed over the next few months and would be shared at the public hearing in 2020.

We appreciate your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
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PUBLIC COMMENT SHEET

NDOT District 3

S-275-6(1052) Norfolk – Wisner; C.N. 32319

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OCT 04 2019
COMMUNICATION DIVISION

*Please submit your written comments by **September 25, 2019**.*

Return to: *Sarah Soula*
Nebraska Department of Transportation
Public Involvement
P.O. Box 94759
Lincoln, NE 68509-4759

sarah.soula@nebraska.gov
(402) 479-4871 Office
(402) 479-3989 Fax

I'm concerned about speed limits by the second (west) entrance to Wisner-Pilger Schools. I suggest they be 40 mph instead of 50 m.p.h. for safety reasons.

Thank you

The Nebraska Department of Transportation and the Federal Highway Administration appreciates your input. Your comments, questions, and suggestions will be reviewed by appropriate personnel. Thank you for your participation.

Date: 9-25-19
Name: LaRayne Topp
Street Address: 606 17th P Street
City, State, Zip: Wisner
Phone:
Email: topplarayne@gmail.com

Written comments submitted to NDOT are considered public information and may be shared with appropriate local, state, or federal agencies, as well as the general public, as part of the project development process.

NEBRASKA

Good Life. Great Journey.

DEPARTMENT OF TRANSPORTATION

Pete Ricketts, Governor

October 29, 2019

LaRayne Topp
606 17th Street
Wisner, NE 68791

S-275-6(1052) Norfolk - Wisner; C.N. 32319

Dear LaRayne:

The Nebraska Department of Transportation (NDOT) appreciates your input in regard to this proposed project. Safety to the travelling public is the number one concern and consideration for the NDOT regarding the Nebraska State Highway System. As part of this project, known safety issues will be addressed, and NDOT will incorporate safety improvements. In regard to the speed limit at the west entrance to Wisner-Pilger Schools, NDOT, in coordination with the City of Wisner, conducted speed studies in November 2014 along US-275. As a result of the studies, a 50 mile per hour speed limit was established and a vehicle activated speed indicator was installed near the west entrance. NDOT will continue to reevaluate speed limits at regular intervals after the completion of this proposed project.

We appreciate your participation on this project.

Sincerely,

Kyle G. Keller, PE
Roadway Design Division
Nebraska Department of Transportation
P.O. Box 94759
Lincoln, NE 68509-4759
Kyle.Keller@nebraska.gov
(402) 479-3674

TECHNICAL MEMO

To: Kyle Keller, NDOT

From: JEO Consulting Group

Date: September 8, 2023

Subject: 18th Street Intersection in Wisner

CN 32319B

N-57 – Wisner

The purpose of this technical memorandum is to document the proposed intersection design at the intersection of US-275 with 18th Street North in Wisner, Nebraska. The Wisner-Pilger K-12 School utilizes 18th Street North to access the school grounds. The superintendent of the school district requested that a left-turn lane be investigated at this location.

Project Description

This project is located on US-275 in Stanton and Cuming Counties, starting 0.3 miles west of the junction of US-275 and N-57 and extending east to 0.3 miles southeast of the west corporate boundary of Wisner. The project will construct a 4-lane expressway using a 2 + 2 design approach.

Existing Conditions

The existing roadway on the segment of US-275 within Wisner generally consists of two 12-foot-wide lanes and 10-feet-wide shoulders, of which 8-feet are paved. At the intersection of US-275 and 18th Street North in Wisner, the roadway is transitioning to a four-lane undivided urban section. The end of the project is located at the transition from asphalt to concrete pavement (MM 101+79). The following attributes and features are within 300-feet of the intersection with 18th Street North:

- Sta. 871+95 Rt. Commercial Driveway to Prime Stop et al.
- Sta. 875+18 Lt. 3-way Intersection with 18th Street North.
- Sta. 875+40 Rt. 3-way Intersection with 18th Street South
- Sta. 875+94 Lt. 3-way Intersection with 17th Street North
- Sta. 876+35 Pavement Transition from Asphalt to Concrete
- Sta. 876+67 Rt. Driveway to Cattleman's Lodge
- Sta. 877+50 Rt. Driveway to Cattleman's Lodge
- Sta. 877+59 Lt. Driveway to Apartment Complex
- Sta. 877+86 Lt and Rt. Intersection with Alley
- The posted speed limit is 40 miles per hour (mph)

Proposed 18th Street North Realignment

18th Street North intersects US-275 at a 35-degree angle at Sta. 875+94 Lt. The project will reconstruct and realign 252-feet of 18th Street North to eliminate the skew. As a result of the realignment, the intersection will be relocated 116-feet to the west at Sta. 874+02.

Proposed Rural to Urban Transition

The rural template consists of 2-12-feet-wide driving lanes, a 4-feet-wide inside paved shoulder, an 8-feet-wide outside paved shoulder and a 54-feet-wide depressed median. The transition from the rural to urban template is between Sta. 847+79 and Sta. 873+57. Through this segment the template transitions from a 4-lane divided highway with a 54' depressed median with the northbound 3R lanes on the left and the southbound new lanes on the right to the urban 4-lane undivided highway with curb and gutter. The mainline alignment utilizes a set of reverse horizontal curves to offset the northbound and southbound lanes.

Proposed Conditions at 18th Street North Intersection

At the intersection with 18th Street North at Sta. 874+02, the proposed roadway section consists of 4-12-foot-wide lanes and 8-foot-wide paved shoulders. The median width is 0-feet-wide between Sta. 873+57 and the end of the project at Sta. 876+35.

Left-Turn Lane at 18th Street North Intersection

The following discussion evaluates issues associated with developing a left-turn lane at the intersection with 18th Street North that is located on the east end of the project limits just west of the transition from asphalt to concrete pavement

At a minimum, a 12-foot-wide median is needed for a left-turn lane. A 40:1 taper rate would take a minimum of 240-feet to develop assuming the median width would measure 6-foot left and right of the centerline. The distance between the intersection with 18th Street North and the end of the project is 233-feet. A median of sufficient width for a left-turn lane cannot be developed. There are conflicting movements due to other access points in close proximity to 18th Street. Therefore, a dedicated northbound left-turn lane cannot be developed for the intersection of 18th Street.

Assuming that the project end would be extended east to develop a left-turn lane prior to the intersection. The following issues are present:

- This proposal would relocate the end of the project approximately 200-feet east near the alley between 17th/16th Street.
- This proposal would not provide a left-turn lane at 18th Street South and 17th Street North.
- This proposal would result in conflicting left-turns at the commercial driveway to Prime Stop and to 18th Street North. The distance between the driveway and the intersection is 167-feet.
- This proposal would encroach upon the Prime Stop if a rural section was used. The edge of the proposed driving lane is approximately at the same location as the existing edge of the paved shoulder. If a rural section was used, the resulting limits would encroach upon the improvements on the Prime Stop parcel. These impacts could be mitigated if an urban section was used adjacent to the parcel.