REEVALUATION of the PROGRAMMATIC BIOLOGICAL ASSESSMENT

for the

NEBRASKA BIOLOGICAL EVALUATION PROCESS

Prepared in support of the Programmatic Agreement between

Federal Highway Administration, Nebraska Division
Nebraska Department of Transportation
U.S. Fish and Wildlife Service
Nebraska Game and Parks Commission

February 2023

The Federal Highway Administration (FHWA) and the Nebraska Department of Transportation (NDOT) are reevaluating the Programmatic Biological Assessment (PBA) for the Nebraska Biological Evaluation Process (Process). The associated Programmatic Agreement (PA), which was originally set to expire in January 2022, was extended to February 2023. The PBA is the evaluation that documents the overall assessment of the potential effects to state and federally listed species within Nebraska from use of the Process, associated tools, and the implementation of the PA. This document is a reevaluation of the PBA from the first renewal of the PA in January 2017. The original PBA, which was submitted to the agencies on January 9, 2012, and concurred upon, by US Fish and Wildlife Service (USFWS) and Nebraska Game and Parks Commission (NGPC) on February 3, 2012, and February 6, 2012, respectively.

Background

The Process, and its supporting documents and tools, were originally prepared through over 30 interagency consultation meetings between FHWA, NDOT, USFWS, and NGPC. The tools that these agencies jointly developed were based on consideration of the life histories and ranges of the state and federally listed Endangered and Threatened species (E&T species) within Nebraska, federally designated critical habitat, known observation of the protected species (Natural Heritage Database records), potential impacts of construction from NDOT activities, and standardized reasonable conservation measures that would be implemented into a construction project in order to avoid and minimize potential impacts.

The Process was implemented by the signatory agencies as a pilot program between June 2009 to December 2011 with over 200 projects cleared through the streamlined process. The Process was fully implemented by the signatory agencies in January 2012, in accordance with a PA among the signatory agencies. Since that time, the signatory agencies have met annually or biennially to audit a random sample of projects reviewed using the Process and address any issues and changes that needed to be made based on the results of the audit. The original 2012 PBA and PA was renewed in January 2017, with four additional extensions approved that carries the expiration date through to February 2023. The signatory agencies met in 2021, 2022, and 2023 and reviewed the PA and the Process to address any updates and changes identified over the past six years.

Summary of Changes and Updates to the PA and the Process

Changes to the PA

The signatory agencies met beginning in June 2012 and continued throughout 2021, 2022, and into 2023, to review the PA and update as needed. After review of the PA, it was determined that the following sections would be updated, along with many minor editorial changes.

Additional “whereas” statements were added to the beginning of the PA, stating that FHWA has assigned NDOT as the lead federal agency for CE level project categories under an active Section 326 Memorandum of Understanding. FHWA is the lead federal agency for unassigned CE projects, recreational trail projects, ER projects, EA’s, and EIS’s.

Section 1 – Applicability

- The activity "rumble strip, stripe and bar installation" was removed from the list of activities that have no potential to affect listed species. Signatories determined that the noise component from the activity necessitates a review through the program biological evaluation process.

Section 2 – The Program Biological Evaluation Process

- The development of a project level action area guidance document was included in the list of tools and procedures.
- Added language to reference tools and agreements outside the Program Biological Evaluation Process that could be used for reviews of species that are not included in the Process (i.e., Northern Long-eared Bat, American Burying Beetle).

Section 3 – Project Level Assessment and Consultation

- Emergency Relief (ER) project review process was added to address reviews, analysis, and consultation requirements for T&E species when funding from ER action comes from FHWA, as described in 23 CFR 668. A streamlined ER biological assessment form was created to document effect determinations for ER projects.
- Included language stating FHWA/NDOT response timelines to USFWS/NGPC for additional information on informal consultation. State that FHWA will be included on project level discussions if it leads to program level adjustments.
- Added new language detailing formal consultation timelines, with agencies and applicant meeting within 60 days of submittal and USFWS and NGPC providing a draft biological opinion (BO) within 135 days of complete application submittal.

Section 4 – Reporting and Monitoring

- Removed the requirement to include Section/Township/Range in the annual report and replace with road name and mile markers.
- Clarified annual reporting will be on projects in the last state fiscal year (July 1 – June 30) and provided to all signatories by end of July each year.
- Clarified that program monitoring will occur every two years, during even calendar years.

Section 5 – Additional Provisions

- Clarified NEPA Re-evaluation process
- Stated process for coordinating T&E reviews when on Tribal or federal lands.
- Updated process for incorporating changes to T&E species listings. Stated that USFWS/NGPC will notify signatories of proposed listings, the signatories will meet within 30 days of proposed listing, develop a plan of action for incorporating the species changes into the Process and reviewing project specific species impacts by the final listing.

Section 6 – Administrative Stipulations

- Stated FHWA will be invited to discussions that arise out of project level reviews that may set a program level precedent.

Changes to the Process

Over the past five years, the signatory agencies have met annually to review the Process and make changes, as identified. The following changes have occurred:

- Language changes were made to the Sources of Impacts Definitions, Species Evaluation Parameters Form (SEP), Federal and State Listed Species Conservation Conditions (CCs), and the Overview of Effects and Required Conservation Conditions Form (OERCC) for clarification.
- Updates to the CCs, Effect Analysis Tables, and the Federal Species Matrix and State Species Matrix (Matrix) were made to remove American burying beetle and Northern Long-eared bat and to incorporate new federal and state listed species and listing status changes as well as changes in NDOT Standard Specifications for activities (i.e., LED lighting).
- Activities were revised from the Checklist of NDOT Activities/Sources of Impacts.
- Updated species survey protocols were added or replaced outdated protocols.
- Developed a process to determine the project action area (included as an appendix) which includes noise, visual, lighting, and waterway as major categories of impact sources.
- Updated Bald and Golden Eagle Protection Act guidance document (included as an appendix)
- Determined that agency county lists are no longer updated, therefore it was agreed to use agency range maps in Step 1 of SEP form (use both USFWS and NGPC species ranges).
- Outlined a process for utilizing the FHWA/USFWS Range-wide Programmatic Agreement for Indiana Bat and Northern Long-eared Bat (included as an appendix to the matrix PA).
- Agreed to a process where a species-specific programmatic agreement for American burying beetle would be developed to evaluate impacts to ABB through soil disturbance activities in suitable habitat. An interim approach was identified to use IPLEs or the formal consultation process (included as an appendix to the matrix PA).

Changes to Species Listings / Status

In October 2020, the USFWS listed eastern black rail (*Laterallus jamaicensis jamaicensis*) as Threatened with a 4(d) Rule. No conservation conditions were developed for eastern black rail because there is no known permanently occupied or breeding habitat for this species in Nebraska and it is considered a rare and casual migrant in the state.

In January 2020, the NGPC removed the river otter (*Lontra canadensis*) from the state's threatened species list. River otter has been removed from the matrix Process. The NGPC also listed the Thick-billed longspur (*Rhynchophanes mccownii*) and the Timber rattlesnake (*Crotalus horridus*) to the state's Threatened species list in January 2020. Suitable habitat was identified for these new species and appropriate questions were developed and added to the SEP. Activities were reviewed and effect determinations made and added to the matrix Process. Species specific conservation conditions were developed and added to the CC's document in the Process.

In November 2020, the USFWS down listed the American burying beetle (*Nicrophorus americanus*) from Endangered to Threatened with a 4(d) Rule. Throughout the past 10 years, conservation commitments and protocols for American burying beetle have been adjusted. The original implemented protocols in the 2012 PA required trapping and relocating beetles from the construction area, but subsequent research found this protocol to potentially cause adverse impacts to the species. Therefore, the use of this protocol was discontinued. Since the first

renewal of the PA in 2017, new protocols were developed to avoid direct impacts to beetles through mowing and carrion removal. However, additional ongoing research found these past protocols greatly overestimated the benefits of these actions, and not all prohibited take could be avoided through implementation. Conservation conditions were revised or removed to focus on avoiding impacts to the species. With the down-listing in 2020 and the 4(d) Rule, the signatories decided to remove American burying beetle from the Process and agreed to develop a species-specific programmatic agreement for American burying beetle to evaluate impacts from soil disturbance activities in suitable habitat. A Nebraska Implementation Guidance Document for ABB was created to capture this process and interim procedures.

In December 2022, the USFWS published the final rule to up-list the Northern long-eared bat (*Myotis septentrionalis*) from Threatened with a 4(d) Rule to Endangered. With the up listing, the Signatories decided to remove NLEB from the matrix Process. NDOT and FHWA will utilize USFWS' Information for Planning and Consultation (IPaC) online tool and the updated FHWA/USFWS Range-wide Programmatic Agreement for the Northern long-eared bat. NDOT and FHWA discussed the FHWA/USFWS Range-wide Programmatic Agreement with NGPC, and NGPC determined the process will meet the requirements under NESCA consultation. A Nebraska Implementation Guidance Document for NLEB was created to capture this process.

As part of the five-year update to the programmatic agreement, these species changes have been incorporated into the second renewal of the Programmatic Agreement Matrix and Process.

Threatened and Endangered and Species Review

FHWA and NDOT have conducted a review of the changes to the PA and the Process to determine if there is a change in the original effect determination concurred upon by the USFWS and NGPC for endangered and threatened species. This was done using Species Evaluation Parameters and review of the changes to the PA and the Process. The species evaluated are those federal and state listed species in Nebraska, <u>except</u> for Northern long-eared bat, which is covered under the FHWA/USFWS range-wide programmatic consultation, as well as American burying beetle, which will be covered under a species-specific programmatic agreement that is in development. The interim process for ABB will follow the Nebraska Implementation Guidance Document for American burying beetle (Matrix PA appendix). As of the date of this document, the species are those listed in Table 1.

Table 1: Nebraska T&E Species

	Common Name	Scientific Name	State Status	Federal Status
BIRDS	Eskimo Curlew[1]	*Numenius borealis*	Endangered	Endangered
	Whooping Crane[3, 4]	*Grus americana*	Endangered	Endangered
	Interior Least Tern[4]	*Sternula antillarum athalassos*	Endangered	
	Eastern Black Rail[2]	*Laterallus jamaicensis jamaicensis*	Threatened	Threatened
	Piping Plover[4]	*Charadrius melodus*	Threatened	Threatened
	Rufa Red Knot[2]	*Calidris canutus rufa*	Threatened	Threatened
	Mountain Plover	*Charadrius montanus*	Threatened	
	Thick-billed Longspur	*Rhynchophanes mccownii*	Threatened	
MAMMALS	Black-footed Ferret[1]	*Mustela nigripes*	Endangered	Endangered
	Swift Fox	*Vulpes velox*	Endangered	
	Northern Long-eared Bat[5]	*Myotis septentrionalis*	Endangered	Endangered
	Southern Flying Squirrel	*Glaucomys volans*	Threatened	
	Gray Wolf	*Canis lupus*	Endangered	Endangered
FISH	Pallid Sturgeon[4]	*Scaphirhynchus albus*	Endangered	Endangered
	Topeka Shiner[3]	*Notropis topeka*	Endangered	Endangered
	Sturgeon Chub	*Macrhybopsis gelida*	Endangered	
	Blacknose Shiner	*Notropis heterolepis*	Endangered	
	Lake Sturgeon	*Acipenser fulvescens*	Threatened	
	Northern Redbelly Dace	*Chrosomus eos*	Threatened	
	Finescale Dace	*Chrosomus neogaeus*	Threatened	
INSECTS	American Burying Beetle[6]	*Nicrophorus americanus*	Threatened	Threatened - 4(d) rule
	Salt Creek Tiger Beetle[3]	*Cicindela nevadica lincolniana*	Endangered	Endangered
REPTILES	Timber Rattlesnake	*Crotalus horridus*	Threatened	
	Western Massasauga	*Sistrurus tergeminus*	Threatened	
MUSSELS	Scaleshell Mussel	*Leptodea leptodon*	Endangered	Endangered
PLANTS	Blowout Penstemon	*Penstemon haydenii*	Endangered	Endangered
	Colorado Butterfly Plant	*Gaura neomexicana* ssp. *coloradensis*	Endangered	
	Saltwort	*Salicornia rubra*	Endangered	
	Western Prairie Fringed Orchid[4]	*Platanthera praeclara*	Threatened	Threatened
	Ute Ladies'-tresses	*Spiranthes diluvialis*	Threatened	Threatened
	American Ginseng	*Panax quinquefolius*	Threatened	
	Small White Lady's Slipper	*Cypripedium candidum*	Threatened	

[1] There are historical records of these species in Nebraska, but no known recent records or extant populations in Nebraska.
[2] There are recent (not historical) records of these species in Nebraska. However, there are no known breeding populations and/or Nebraska does not provide an important stopover or migratory path for these species.
[3] Critical Habitat also listed for this species
[4] Platte River species
[5] NLEB is reviewed under the FHWA/USFWS Range-wide Programmatic Agreement and not the Nebraska Biological Evaluation Process
[6] ABB will be review under a species-specific programmatic agreement that is in development.

Program Level Impact Evaluation of Process Implementation

As outlined in the original PBA, the conservation conditions developed as part of the Process follow a multi-tier approach. Since the first renewal of the PA in 2017, there are new, revised, or deleted conditions to the (1) general conservation conditions for specific impacts/activities, as applicable; (2) conservation conditions that apply within the range of specific species; and (3) conservation conditions that apply according to the effect determinations in the Matrix. The revisions of these conservation conditions further cover possible construction-related actions that might occur and put programmatic conditions in place to address these actions or new listed species. With these revisions, the Process has continued to reduce the impacts of possible construction actions to a discountable level.

Proper implementation of the PA prevents adverse effects to species and designated critical habitat. Annual reviews of the Process have ensured that the commitments made in the PA are being implemented properly. These reviews have also verified that unanticipated impacts to species have not occurred through use of the Program.

Over the past five years (2017-2022), approximately 453 projects have been reviewed through the Process. Approximately 18% of these projects required individual consultation with the agencies due the Matrix identifying a “May Affect” determination for a species/critical habitat and less than 3% of these projects resulted in implementation of specially developed conservation conditions outside those available in the Process tools. No formal consultations were required during the past five years. This information indicates both that the tools are functioning as intended and the overall federal-aid transportation program continues to have a minimal impact to listed species/critical habitat.

The implementation of the PA, the general conservation conditions, and the general conditions that apply within certain species ranges act together to avoid and minimize species impacts on a program level. Based on the findings of the past five years of annual reviews, the implementation of the Process has not created cumulative or direct impact concerns at a program level.

Species Level Impact Evaluation of Process Implementation

This section summarizes the Program’s impact to Nebraska T&E species by grouping like species into one assessment and assessing changes that have occurred to the PA and the Process. The species are grouped by aquatic species, plants, mammals, reptiles, birds, and insects.

AQUATIC SPECIES (FISH and MUSSEL)

Transportation projects may degrade water quality through roadway runoff or construction-related sedimentation/erosion. Bridge and culvert construction or rehabilitation efforts may affect aquatic species by impeding movement or altering stream flow. Continued proper implementation of the conservation conditions and NDOT policies makes the risk of impacts to species, habitat, or water quality negligible and/or discountable. Through continued application of Clean Water Act Section 404 and 401 permitting requirements and implementation of Stormwater Pollution Prevention Plan (SWPPP) requirements, these types of effects to aquatic species are avoided, with the residual level of impact so low it cannot be measured.

Activities with a greater potential to impact aquatic species, such as channelization, bank stabilization, replacing bridges with culverts, and work within channels, are still identified in the Matrix as "May Affect" activities and are addressed through project-specific consultation with the resource agencies. When reviewing data from the past five years of project reviews, a very small percentage of transportation projects occur within suitable habitat or created actions that would potentially impact aquatic species. For example, only 18 of the 453 projects (approximately 4%) reviewed required further consultation with agencies because they were within suitable aquatic species habitat. Based on the annual review of the projects over the past five years, cumulative effects to aquatic species were not identified.

These factors demonstrate that the continued implementation of the Program may affect, but is not likely to adversely affect the listed aquatic species in Nebraska.

PLANTS

Transportation projects may directly impact plant species by harm to individual plants or the indirect modification of suitable habitat during construction through land use changes, ground disturbance, soil contamination, introduction of nonnative invasive plant species, lighting and pollinator interactions, and changes to the hydrology of an area. NDOT policies and state laws require hydrologic studies and avoidance of substantial hydrologic changes during the design process. General conservation conditions implemented through the Process and the SWPPP requirements avoid soil contamination and introduction of nonnative invasive plant species. Direct mortality impacts to listed plants are avoided by implementation of Matrix conservation conditions requiring a survey to be conducted prior to ground disturbance activities in suitable habitat. If survey results are positive, further consultation is required. Surveying, documenting presence/absence, and consultation when presence is documented results in a negligible risk of impacts to individual plants.

When reviewing data from the past five years of project reviews, only 4 out of 453 projects required Individual Project Level Evaluation beyond the Matrix and none of those projects identified protected species growing within the project limits. Impacts were avoided through development of specialized conservation conditions with agency consultation. The majority of transportation projects over the past five years within suitable plant habitat have been primarily asset preservation type projects. Based on a review of the past five years of projects, direct impacts, indirect impacts, and cumulative effects to plants were not identified.

These factors demonstrate that the continued implementation of the Program may affect, but is not likely to adversely affect the listed plant species in Nebraska.

MAMMALS

Transportation projects have the potential to directly impact mammals through mortality, or impacts to breeding, feeding, and sheltering. Indirect impacts may include modification of suitable habitat during construction through land use changes, impeding movements, modification of behavior, fragmentation of habitat, and hydrologic changes. Due to NDOT policies and state laws, hydrologic studies occur during the design process and substantial hydrologic changes are avoided. Direct impacts to listed mammals are avoided because the Matrix conservation conditions either require work outside of a species' specific breeding season or a survey be conducted when ground disturbance or bridge work would occur within suitable habitat. If survey results are positive and presence is identified, further consultation is

required prior to beginning construction. Avoiding critical breeding seasons, surveying, documenting presence/absence, and consultation when the species is present results in a negligible risk of impacts to individual mammals.

When going through the Process, actions with a greater potential to impact mammals, such as habitat fragmentation and activities that create barriers to movement, are identified as a "may affect" and are addressed through a project-specific consultation with the resource agencies.

The black-footed ferret and gray wolf have no known permanently occupied or seasonally occupied habitats in Nebraska. Black-footed ferret historically occurred in large prairie dog towns; however, it is believed to be extirpated from the state of Nebraska. Adverse program effects to black-footed ferret are not anticipated because consultation is required if habitat fragmentation activities occur within 5-miles of a current record of ferrets in the state and in an area of suitable habitat (large prairie dog complex). The USFWS considers the probability of the species in the state to be very low and considers the black-footed ferret to be extirpated in Nebraska. The main concern for the black-footed ferret is the destruction or fragmentation of potential reintroduction sites. Adverse program effects to gray wolf are not anticipated due to the extensive home range and transient nature of this species. Due to the linear nature of transportation projects, the main concern for adverse effects to the gray wolf is habitat fragmentation caused by new roadway corridors or the widening of existing roadways within their range. Any transportation actions that could lead to habitat fragmentation have been designated as "may affect," requiring consultation.

Based on the annual review of the projects over the past five years, direct impacts, indirect impacts, and cumulative effects to mammals were not identified.

These factors demonstrate that the continued implementation of the Program may affect, but is not likely to adversely affect the listed mammal species in Nebraska.

<u>REPTILES (Western Massasauga & Timber Rattlesnake)</u>

Transportation projects may directly impact Western massasauga and Timber rattlesnake through mortality of individuals, or impacts to breeding, feeding, and sheltering. Indirect impacts may include modification of suitable habitat during construction through land use changes, changes in hydrology, and impeding seasonal movement. Direct impacts to these snakes are avoided because the Matrix conservation conditions require a survey be conducted when ground disturbance would occur within suitable habitat prior to construction. If survey results indicate presence, then further consultation is required. Projects within suitable Western massasauga or Timber rattlesnake habitat include additional conditions to modify erosion control strategies, and requirements for construction personnel to avoid harming snakes. Surveying for these species, requiring avoidance of snakes, and modifying erosion control practices reduce the risk of impacts to individuals. When going through the Process, actions with a greater potential to impact these snakes, such as activities that fragment habitat or directly take species are identified as a "may affect" determination and are addressed through a project-specific consultation with the resource agencies.

When reviewing projects over the past five years, very few projects occur within suitable habitat for Western massasauga or Timber rattlesnake, and all of the projects located within suitable habitat were asset preservation type projects. A total of 18 projects have occurred in the last 5 years in Western Massasauga range, and all standard protocols were followed for avoidance of impacts, however an incidental take of one individual of Western Massasauga occurred in

2021. The incidental take occurred during mowing activity within the NDOT ROW to prepare the area grading and culvert work. Due to this incidental take, NDOT and NGPC agreed to conduct a snake research project to identify movement corridors along roadways. Based on the future results of this study, additional avoidance measures may be developed to strengthen NDOT standard protocols and avoid future incidental take. Based on review of these projects, no cumulative effects were identified.

These factors demonstrate that the continued implementation of the Program and changes based on scientific research may affect, but is not likely to adversely affect Western massasauga and Timber rattlesnake in Nebraska.

BIRDS

Most of the listed bird species in Nebraska are closely tied to aquatic systems. Transportation projects can impact these aquatic-reliant species through harassment (i.e., noise) during construction activities, degradation of water quality due to roadway runoff, construction-related sedimentation/erosion, and changes in flow regimes. Impacts to upland nesting birds can result from direct mortality of individuals, or impacts to breeding, feeding, and sheltering. Indirect impacts may include modification of suitable habitat during construction through land use changes and changes in hydrology. Through application of Clean Water Act Section 404 and 401 permitting requirements, and implementation of SWPPP requirements, these types of effects to aquatic bird species are avoided, with the residual level of impact so low it cannot be measured.

When going through the Process, actions with a greater potential to impact bird species, such as channelization activities, bank stabilization, habitat fragmentation and work within channels, are identified as a “may affect” determination and are addressed through a project-specific consultation with the resource agencies. For most activities, the conservation conditions are either to avoid the bird nesting or migration seasons or follow survey protocols to determine if the species is present within the project area. If the species is present, consultation occurs and any activities with potential to disturb the species are halted until consultation is complete.

No sightings of Eskimo curlew have been recorded in the Nebraska Natural Heritage Database since 1975 and this species is likely extinct throughout its range. Scientific literature suggests that the pressures of climate change and unregulated hunting were the primary stressors that lead to the species’ disappearance from Nebraska (Silcock and Jorgenson 2020, Gill et al. 2020). Additionally, there have been no accepted occurrence records of this species in the state since 1962 (Brooking 1942; Swenk 1926; Bray et al. 1986) with no foreseeable improvements expected despite some conservation efforts that have occurred in North America to improve population numbers (Gill et al. 2020). For these reasons, FHWA/NDOT had determined that the program will have no effect on the species.

Rufa red knot is a rare casual migrant in the state of Nebraska and has no known permanently occupied or seasonally occupied habitat. This species typically migrates through very quickly and does not spend more than 24-hours in any one location. Impacts from transportation projects would be similar to those for other migrating aquatic-reliant bird species. Adverse program affects to either of these species are not anticipated due to the rare occurrence and transient nature of both of these species in Nebraska. If new information becomes available regarding species status, the Process will be reviewed and modified as necessary.

Eastern black rail is another rare, casual migrant in the State of Nebraska. NGPC conducted over 1,400 surveys for Eastern black rail between 2013 and 2021, with only one detection in the Harvard Waterfowl Production Area in Clay County. The only other record of the species in Nebraska was recorded over 30 years ago in the Niobrara River Valley in Knox County. Therefore, the species is considered a vagrant in Nebraska (85 FR 63764). No conservation measures were developed for eastern black rail because there is no known permanently occupied or breeding habitat for the species in Nebraska. Impacts from transportation projects would be similar to those for other migrating aquatic-reliant bird species. Adverse program effects on eastern black rail are not anticipated due to the vagrant nature of the species in Nebraska. However, if a project occurs within a 0.5 mile of the Harvard Waterfowl Production Area in Clay County a presence/absence survey would be required. If eastern black rail is found, consultation with USFWS and NGPC is required. If eastern black rail is not found, no further action is needed. As stated in the Final Rule "if the species is not present in areas within the range, no protections or restrictions would apply to those areas" (85 FR 63764). If new information becomes available regarding the species status, the Process will be reviewed and modified as necessary.

When reviewing the data from the past five years of project reviews, interior least terns, piping plovers, and whooping cranes were identified frequently for potential impacts because many roadways are close to, or cross, waterways. In addition, whooping cranes were identified frequently due to the large size of their migration corridor and the generalist nature of their use of stopover habitat. Because conservation conditions focus on avoidance of species when present, the potential for impacts on these types of projects are negligible. Since a main avoidance strategy involves following survey protocols prior to construction, survey protocol methodology was reviewed to determine if the repetitive implementation of the protocol could impact these species. Because these surveys focus on visual searches for species, the potential to habituate birds to call surveys is non-existent. There is a slight potential for the visual presence of a person to flush a listed bird; however, best available science has demonstrated that interior least terns and piping plovers are very adaptable to human developments (such as sand and gravel mines and lakeshore housing developments) and have a high tolerance for human presence. Furthermore, requiring survey personnel to minimize visual and noise disturbances as part of the protocols reduces the potential to impact the listed bird species. Therefore, based on a review of the projects over the past five years, cumulative effects to these bird species from implementation of the Process were determined to be insignificant.

These factors demonstrate that the continued implementation of the Program may affect, but is not likely to adversely affect listed birds in Nebraska.

INSECTS

Transportation projects could cause direct mortality to individuals during construction or the indirect modification of suitable habitat to listed insect species through land use changes, ground disturbance, soil contamination, changes in soil character, and changes to the hydrologic regime of an area. Due to NDOT policies and state laws, hydrologic studies occur during the design process and substantial hydrologic changes are avoided. In addition, there are general conservation conditions implemented through the Process and SWPPP requirements to avoid soil contamination.

With the down listing to Threatened and the 4(d) Rule, the signatories have determined to remove American burying beetle from consideration under the Program BA and will evaluate ABB through the development of a species-specific programmatic agreement. In the interim, ABB would be evaluated on a project-by-project basis through the use of IPLEs or through the formal consultation process.

For the Salt Creek tiger beetle and designated critical habitat, most project activities result in a "may affect" determination and require project consultation, because of the small amount and very localized nature of suitable habitat remaining and limited number of individuals remaining in the wild. When reviewing the data from the last five years, none of the transportation projects occurred within suitable Salt Creek tiger beetle habitat or critical habitat. Any projects that were located adjacent to suitable habitat had specially developed conservation conditions to avoid impacts to the species and the associated habitat.

Therefore, based on a review of the past five years of projects and changes in conservation conditions to better meet the needs of the species based on best available science, direct impacts, indirect impacts, and cumulative effects to insect species were not identified.

These factors demonstrate that the continued implementation of the Program may affect, but is not likely to adversely affect listed insects in Nebraska.

Summary Determination for all Nebraska T&E Species

Implementation of the updated PA and use of the updated Nebraska Biological Evaluation Process "May Affect, but is Not Likely to Adversely Affect" federal and state listed endangered, threatened, and proposed species in Nebraska and their habitats.

The following agencies have reviewed this document, and agree with the recommended effect determinations:

For Nebraska Department of Transportation

Signature	Printed Name	Title	Date
	Jeff Hartman	Environmental Supervisor	2/17/2023

For Federal Highway Administration

Signature	Printed Name	Title	Date
	Dillon Dittmer, PWS	Environmental Protection Specialist	03/09/2023