

Appendix F

Threatened and Endangered Species

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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.
- ☒ 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)*: **Lake Sturgeon, Pallid Sturgeon, Monarch Butterfly, Northern Long-eared Bat, Piping Plover, Rufa Red Knot, Sturgeon Chub, and Suckley’s Cuckoo Bumble Bee**

Northern long-eared bat (NLEB) and tri-colored bat (TCB) were evaluated through the FHWA, FRA, FTA Programmatic Biological Opinion/Conference Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, Tricolored Bat on IPaC. This project received concurrence by USFWS for NLEB on 2/3/2025. This project is outside the Area of Interest for TCB for the USFWS, so the project will have “No Effect” on the species. To be more conservative, additional AMMs for NLEB and TCB will be implemented.

- ☐ 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 has been determined that suitable habitat does exist within the Initial Survey Area and within 0.5 miles of the Initial Survey Area. NDOT will utilize the Bald Eagle (or Golden 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 Initial Survey Area, NDOT will notify the Nebraska Game and Parks Commission and the United States Fish and Wildlife Service, and construction will not commence prior to their approval.

Fish and Wildlife Coordination Act:

A wetland delineation was completed in November 2023. There are wetland resources within the study area; however, wetland and channel impacts have not been finalized. Impacts are anticipated, and an Individual Permit is anticipated. At this time, mitigation is still being evaluated, but it is anticipated. When impacts are finalized, coordination through the Fish and Wildlife Coordination Act will be re-evaluated.

Agency Coordination: The Action Area for this project extends into the tribal lands of the Omaha Tribe. Due to this, NDOT, on behalf of the Federal Highway Administration (FHWA), requested the Bureau of Indian Affairs and the Omaha Tribe to review the Draft Biological Assessment (BA) for any comments or concerns as it relates to federally and state-listed threatened and endangered species or other species of concern. The request was initiated on February 4th, 2026. NDOT requested that any comments, questions, or concerns be received by March 4th, 2026. Any questions, comments, or concerns will be addressed as necessary.

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-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 or 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, 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, NDOT Roadway Design, District Construction)*

S-5 Species Surveys. If species surveys are required during the construction phase of the project (including pre-construction surveys), results will be sent by NDOT Environmental Section to the USFWS, NGPC, and if applicable the USACE. (*NDOT Environmental, District Construction*)

S-6 Permanent LED Lighting (NDOT Design Commitment): Only LED roadway luminaries listed on the NDOT "Nebraska Qualified Material Vendors List" will be considered for use on Nebraska highway lighting projects. Proposed changes to the following LED lighting requirements would require resource agency (USFWS and/or NGPC) coordination and approval prior to installation:

- Nominal CCT – 3000 +/- 300 K
- BUG Ratings – Maximum nominal Backlight (N/A), Uplight (0), Glare (N/A)
- Lumen Output – N/A

Any proposed changes to the listed requirement(s) must be presented to the NDOT Environmental Section for Agency Coordination and approval.

R-4 Asphalt plants and staging areas for construction supplies and Contractor's equipment shall be located in areas that are frequently disturbed such as, but not limited to, field entrances, crop fields, abandoned roadway, farmsteads, and roads. If this is not possible, the contractor shall coordinate with NDOT Environmental with a site plan showing the desired staging/stockpile location(s), which will be sited in such a way as to avoid impacting protected species. (*Contractor*)

Northern Long-eared Bat/Tricolored Bat:

GAMM1

Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs. (*NDOT Environmental, District, Contractor*)

LAMM1

Direct temporary lighting away from suitable habitat during the active season (**April 1st - November 15th**). (*District, Contractor*)

LAMM2

When installing new/additional permanent lighting 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 Backlight Uplight and Glare (BUG) system developed by the Illuminating Engineering Society, the project should be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable. http://www.escolighting.com/PDFfiles/BUG_rating.pdf (*Design, Contractor*)

TRTAMM1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal/trimming in excess of what is required to implement the project safely. (*Design, District, Contractor*)

TRTAMM2

Ensure tree removal/trimming 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 removal/trimming to ensure contractors stay within clearing limits (*District, Contractor*)

TRTAMM3a

Ensure tree removal/trimming is limited to the inactive season (November 16th-March 31st) (*NDOT environmental, District, Contractor*)

BCSAMM3A

Ensure bridge, culvert, or structure removal, replacement, and/or alteration activities conducted during the active season will not disturb roosting Indiana bats, NLEBs, or TCBs using the bridge, culvert, or structure. (*NDOT environmental, District, Contractor*)

Pallid Sturgeon/ Lake Sturgeon/ Sturgeon Chub:

- PS/LS/SC-1** No vibratory or impact pile driving from March 1 through July 31 within the channel. (*Contractor*)
- PS/LS/SC-2** Any detention basin outlets will be designed such that it is stabilized to prevent streambank erosion and will not otherwise impact stream channel/bank. (*Design, Contractor*)
- PS/LS/SC-3** The Contractor will dispose of drill cuttings in areas or a manner which will not adversely affect state and/or federally listed species and/or designated critical habitat. (*Contractor*)
- PS/LS/SC-5** No discharge of water or spoil directly into the channel from March 1 through July 31. (*Contractor*)
- PS/LS/SC-6** No flow modifications or disturbance in the channel from March 1 through July 31. Work is allowed within a cofferdam or above the waterline if the work is conducted from the temporary work platform or another location not directly in the channel (i.e., the riverbank or barges). Vibratory or impact pile driving from March 1 to July 31 is **NOT** permitted within or outside of a cofferdam. Temporary bridges or causeways can be constructed between August 1 and March 1, provided they are built according to the terms and conditions of the associated 404 permit. Barges may be secured with spud piles and relocated year-round. (*Contractor*)
- PS/LS/SC-7** Any upland soil disturbances will be designed to avoid or minimize sedimentation. (*Design, Contractor*)
- PS/LS/SC-A** The proposal for the temporary structure, if not already provided, shall be submitted to the USFWS and NGPC at least 30 days prior to construction. (*Contractor, Environmental*)

PS/LS/SC-B During all phases of the bridge removal that do not involve dropping the bridge into the channel, such as the removal of the bridge deck and rails, all debris will be captured and/or contained. During phases of bridge removal that include dropping the bridge into the channel, all materials will be removed from the channel as promptly as feasible. The dropping and removal of the bridge from the channel will not occur between March 1 and July 31. (*Contractor*)

PS/LS/SC-C Bridge demolition activities involving explosives will be avoided between March 1 through July 31.

PS/LS/SC-D Prior to use at the construction site, barges and any equipment that will be used in the water must be de-contaminated of invasive aquatic species according to protocol. (*Contractor*)

Monarch Butterfly:

MB-A To avoid impacts on monarch caterpillars during construction, contractors shall complete all initial vegetation disturbance before May 1 or after October 1. This initial disturbance can be a mow out of the entire area and does not require a full clearing and grubbing. Vegetation shall be maintained at below 6" height or less starting May 1 to October 1. If construction or Contractor activities within areas of suitable habitat are complete before October 1st, the area no longer needs to be mowed. This timing restriction ensures that vegetation removal does not occur during the period when monarch caterpillars are present on milkweed plants. (*Contractor*)

Piping Plover:

PP-4 Herbaceous species used for re-seeding within ¼ mile of the following locations: the west (Nebraska) and east (Iowa) banks of the Missouri River and several unnamed waterbodies will be native grass or forb species. Native shrub or woody species used in restoration should reach no more than 4 feet in height at maturity. These unnamed waterbodies are located at Mile Markers 0+30 (north and south) and 0+ 40 to 0+60 (north and south). (*Design, NDOT Environmental*)

PP-5 If nighttime work is planned between April 15 and August 15, lighting shall be limited to a Nominal CCT of 3000 +/- 300 K, shielded and directed away from the suitable habitat at the following locations: the west (Nebraska) and east (Iowa) banks of the Missouri River and several unnamed waterbodies located at Mile Markers 0+30 (north and south) and 0+ 40 to 0+60 (north and south). (*NDOT Environmental, Contractor*)

Rufa Red Knot: No conservation measures specified

Suckley's Cuckoo Bumble Bee: No conservation measures specified

Project Name: Decatur Bridge
Federal-aid Number: STP-51-7(109)
Control Number: 32395

Updated 2/17/2023

The overall Biological Assessment package was prepared by:

<u>Derek Green</u>	<u>Derek Green</u>	<u>Burns & McDonnell</u>	<u>1/23/2026</u>
Signature	Printed Name	Title and Agency/Firm	Date

Approved by the following qualified NDOT biologist:

<u>Erika Hinz</u>	<u>Erika Hinz</u>	<u>2/4/2026</u>
Signature	Printed Name	Date

☒ 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.*):

<u>Luke Pitts</u>	<u>Luke Pitts</u>	<u>2/10/2026</u>
Signature	Printed Name	Date

☐ 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: Omaha Reservation and Bureau of Indian Affairs

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: Erika Hinz, Nebraska Department of Transportation; Brock Struecker, Iowa Department of Transportation

Biologist Completing Assessment: Derek Green, Burns & McDonnell

Project No.: STP-51-7(109)

Control No.: 32395

Project Name: Decatur Bridge

County: Burt (Nebraska) and Monona (Iowa)

Limits of Work

Start: MM 36.15 (Nebraska, N-51)

End: RP 1.09 (Iowa, IA-175)

Total Length: Approximately 1.47 miles

Activity Checklist Date: 1/30/2026

Project Description Date: 1/20/2026

Project Description: The project is located on Nebraska Highway 51 (N-51) / Iowa Highway 175 (IA-175) within Burt County, Nebraska and Monona County, Iowa at the bridge over the Missouri River (Structure Number S051 03644), mile marker (MM) 36.63. Construction may begin just east of Broadway Street in Decatur, Nebraska and end approximately 1 mile east of the state line on IA-175 to accommodate the replacement of the structure.

The existing roadway on this segment of N-51 west of 3rd Avenue generally consists of two 12-foot-wide concrete lanes and 7-foot-wide shoulders, curbed 38-foot-wide back-to-back.

The existing approach roadway on this segment of N-51 east of 3rd Avenue generally consists of two 10-foot-wide composite lanes, 10-foot-wide shoulder left of which 8 feet are paved with asphalt and 8-foot-wide shoulder right of which 6 feet are paved with asphalt.

The existing approach roadway on this segment of IA-175 generally consists of two 12-foot-wide asphalt lanes and 7-foot-wide shoulders, of which 2 feet are paved with asphalt.

Structure S051 03644 has an existing clear width of 22'-6".

The improvements of this project consist of the replacement of structure S051 03644, pavement reconstruction, storm sewer and culvert work, and guardrail replacement.

Grading will be required for the entire length of this project.

The bridge over the Missouri River (S051 03644) will be replaced with a new bridge. Phasing of the bridge replacement will require a permanent alignment shift and a grade raise. 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. Temporary crossovers may be utilized to accommodate phasing requirements.

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.

Project Limits: The Project Limits are defined as the area between the 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 for this project extends 1.1 miles from the centerline of the roadway. This distance represents the greatest likely extent of effects on species and critical habitat.

Project Action Area Habitat Description: The Nebraska portion of the Project Action Area is located primarily within the Valleys topographic region of Nebraska, although it also includes the Bluffs and Escarpments as well as the Rolling Hills topographic regions. The Valleys region is flat-lying land along major streams, with stream-deposited silt, clay, sand, and gravel. The Bluffs and Escarpments region is found along the Missouri River; an area of steep slopes and cliffs that define the edge of the plains. The Rolling Hills region is hilly with moderate to steep slopes and rounded ridge crests. In eastern Nebraska, the Rolling Hills are mostly glacial till that has been eroded and mantled by loess.

According to the Nebraska Game and Parks Commission's (NGPC) 2005 publication of Nebraska Natural Legacy Project, "A Comprehensive Wildlife Conservation Strategy," the project falls within the Tallgrass Prairie Ecoregion of Nebraska. This ecoregion is the easternmost one in Nebraska and is bordered on the west by the Mixed Grass Prairie and the Sandhills Ecoregions. The land surface is mainly rolling hills intersected by stream valleys. After the glaciers receded, windblown loess was deposited over the till. These materials, with organic matter provided by thousands of years of prairie vegetation, form the basis for the deep, fertile soils that typify eastern Nebraska. Although historically upland tallgrass prairie was the dominant plant community of the region, eastern Nebraska has a diversity of other community types ranging from deciduous woodlands to saline wetlands. Most of the woodlands and prairies that historically occurred in the area, however, have been cleared and converted to agricultural

use (NGPC, 2005).

The Action Area is within the Missouri River and Bluffs Biologically Unique Landscape (NGPC, 2026). The Missouri River and Bluffs biologically unique landscape includes the Missouri River channel, floodplain, and bluffs from the Nebraska/Kansas border to the Nebraska/South Dakota border. Historically, the Missouri River was one of the most dynamic large rivers in North America. The river was more than a mile wide and 20 feet deep in places, and its channel laced with sandbars and forested islands, and the floodplain was a mosaic of oxbow lakes, backwater marshes, wet prairies, and floodplain forests. Alterations to the Missouri River, which began in 1829, have had many negative consequences for riverine flora and fauna. Dam construction has interrupted sediment transport; channelization has resulted in the elimination of sloughs, backwaters, and oxbows; and alteration of natural flows and elimination of lateral riverine movement has resulted in declining populations of many big river species. The lack of properly-timed flows has also impacted the hydrology of the floodplain wetlands. The majority of the floodplain is now cropland. However, the stretches of the Missouri River from Sioux City to Gavins Point Dam and from the upper end of Lewis and Clark Lake to the South Dakota border have remained un-channelized and are designated as a National Recreational River. The steep bluffs of the Missouri River in Dakota, Dixon, Cedar, Thurston, and Burt counties support deciduous forest dominated by bur oak, basswood, and ironwood; remnants of tall-grass prairie and northern loess shale bluff; wet meadows; and cropland. In contrast, the steep bluffs of the Missouri River in Nemaha and Richardson counties and the far southeast corner of Nebraska support an eastern deciduous forest of oaks, hickories, and basswood. These woodlands support a high diversity of eastern deciduous forest plants and animal species, tallgrass prairie remnants on some bluff tops and south- and west-facing slopes; and scattered crop and pasture land.

The Action Area on the west side of the Missouri River, in Nebraska, consists largely of agricultural fields with small areas of grassland and prairie surrounding the Village of Decatur. Portions of both the Tieville Bend and the Middle Decatur Bend State Wildlife Management Areas occur in Nebraska on the east side of the Missouri River, while the Upper Decatur Bend Wildlife Management Area (WMA) occurs east of the Missouri River in Iowa. The Action Area in Iowa is also largely agricultural, with smaller areas of grassland and prairie. Approximately 500 acres of riparian and upland woodland occur in the Action Area, with similar acreages of each habitat across the Nebraska and Iowa portions of the Action Area. Several unnamed waterbodies occur in both Nebraska and Iowa. Wooded areas are dominated by honey locust (*Gleditsia triacanthos*), Siberian elm (*Ulmus pumila*), silver maple (*Acer saccharinum*), eastern cottonwood (*Populus deltoides*), black willow (*Salix nigra*), and green ash (*Fraxinus pennsylvanica*). The Decatur Bridge (S051 03644) over the Missouri River and a pedestrian bridge over Elm Creek in Nebraska were documented within the Action Area. The Missouri River through the Action Area has no sandbars or islands. A small, meandering channel flows through the floodplain on the Iowa side of the river, entering the Missouri River approximately 0.5 mile north of the Decatur Bridge crossing. The floodplain within the Iowa overbank has been disturbed by past flood events, construction of the existing bridge, and river channelization.

Field Visit Summary, as applicable: Burns & McDonnell personnel conducted a field visit on October 4, 2023, to assess available habitat for federally or state-protected species known or likely to occur in the Action Area.

Burns & McDonnell personnel also conducted presence/probable absence surveys for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) and tricolored bat (TCB) (*Perimyotis subflavus*) using acoustic methods from July 22 to July 26, 2024. The surveys followed the USFWS-approved *Rangewide Indiana Bat and Northern Long-eared Bat Survey Guidelines*. Both bat species were determined to be likely absent from the Action Area. (Note: negative

surveys for listed bats are only good for 5 years from completion. Should this project exceed this timeframe, another acoustic bat survey would be conducted.)

Additionally, on August 14, 2025, an NDOT-qualified biologist completed a bridge assessment to survey for bat activity. During the survey, no evidence of bat activity or use was observed. In addition, a bat survey was conducted on September 11, 2025 by a qualified biologist, at a culvert at 3rd Avenue and Marina Drive. During the survey, no evidence of bat activity was observed.

*Although the bat acoustic survey and bridge/structure assessment indicate absence of listed bat species, conservation conditions will still be implemented due to high quality habitat present and to be more conservative for the species. These additional conservation conditions for NLEB/TCB are listed in the OERCC.

DRAFT

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

<u>Species</u>	Is the Project Action Area in the estimated range of the species as identified by the USFWS and NGPC¹?	Are there Natural Heritage records within 5-miles of the Project Limits <u>in the last 30 years</u>?
American Burying Beetle²	☐ 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 Tern³	☐ 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 Sturgeon³	☒ Yes ☐ No	☒ Yes ☐ No
Piping Plover³	☒ 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 Crane³	☐ 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

Within the last 30 years, pallid sturgeon and sturgeon chub have been documented within 1 mile of the project. The proposed bridge replacement is not expected to result in long-term indirect effects such as changes in land use, population density, or growth within the Action Area, and no other future state or private activities are reasonably certain to occur that would affect these species.

Bridge replacement can influence local hydraulics during high-flow events because changes to the bridge configuration (e.g., length, alignment, grade, and the number and location of piers/abutments within the floodplain) can alter the effective waterway and flow conveyance beneath the structure. These changes may affect how waters pass through the bridge opening and adjacent floodplain, which can result in localized changes in water-surface elevations both upstream and downstream during flood events. Any such changes would be evaluated through project hydraulic modeling and design. Conservation conditions and construction measures described in the IPLE are intended to avoid and minimize impacts on aquatic habitat and listed fish species.. Refer to the IPLE for further discussion on conservation conditions, bridge construction details, and anticipated impacts.

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

Habitat fragmentation can be caused by human activity such as land conversion, vegetation clearing, and barriers that impede species movement. The Action Area includes extensive floodplain and WMA habitat on the east side of the Missouri River, where wildlife movement and passage opportunities already occur within and adjacent to the existing transportation corridor.

This project will replace the existing bridge with a longer bridge and shift the crossing alignment to the north. No significant long-term modification of the river channel is anticipated, and channel flow will be maintained during construction. The longer bridge will be achieved primarily by extending spans across the floodplain, not by adding additional piers within the river channel. The in-channel pier configuration will remain comparable to that of the existing bridge. While vegetation adjacent to N-51 and IA-175 will be cleared in some areas, extending the bridge across the floodplain will increase the area of open passage beneath the bridge and reduce the extent of roadway fill that would otherwise impact floodplain habitat. This increased openness will maintain existing passage conditions and may improve wildlife movement opportunities under the bridge relative to existing conditions. Following construction, portions of the existing roadway corridor will be removed or lowered

and revegetated where feasible based on final design and coordination with the Iowa Department of Natural Resources (WMA manager). Any areas converted back to vegetated cover would help restore habitat continuity.

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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? <i>(include field visit information in the opening section of this form)</i>	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? <i>(include field visit information in the opening section of this form)</i>	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? <i>(include field visit information in the opening section of this form)</i>	Yes ☐	No ☐
Eastern Black Rail		Unique Circumstances ☐	
	Does the action area contain dense or thick emergent vegetation with high vegetation density (interspersed) 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 ☐	
	Does the action area include a stream, connected backwater areas, and/or topographic floodplain?*	Yes ☐	No ☐
Pallid 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 ☐
Piping Plover		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 ☐
Rufa Red Knot		Unique Circumstances ☐	
	Does the action area contain open mud flats and/or mud and sandy shorelines free of vegetation?	Yes ☒	No ☐
Salt Creek Tiger Beetle		Unique Circumstances ☐	
	Are saline wetlands and/or salt flats present within action area?	Yes ☐	No ☐
Salt Creek Tiger Beetle (Critical Habitat)		Unique Circumstances ☐	
	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?	Yes ☐	No ☐
Saltwort		Unique Circumstances ☐	
	Are saline wetlands, salt flats, or saline soils present within the action area?	Yes ☐	No ☐
Scaleshell Mussel		Unique Circumstances ☐	
	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?	Yes ☐	No ☐

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? <i>(include field visit information in the opening section of this form)</i>	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? <i>(include field visit information in the opening section of this form)</i>	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? <i>(include field visit information in the opening section of this form)</i>	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? <i>(include field visit information in the opening section of this form)</i>	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? <i>(include field visit information in the opening section of this form)</i>	Yes ☐	No ☐
Whooping Crane		Unique Circumstances ☐	
	Is the action area:	Yes	No
	- 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?	☐	☐
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:

American Ginseng: This project is within the Nebraska Game and Parks Commission range for American Ginseng, which is only state listed as threatened in Nebraska. No suitable habitat for this species occurs on the west side of the Missouri River in the Action Area. Mature wooded habitat is limited, and no bluffs are present. While mature wooded areas along the Missouri River are more extensive on the east side of the river in the Action Area, no bluffs are present. Although some suitable habitat may be present elsewhere in the Action Area, no river bluffs occur adjacent to the project alignment. Farther away from the Missouri River in both Nebraska and Iowa, agricultural fields dominate the Action Area. No suitable habitat is present where this species is listed, and surveys would not be necessary. Therefore, the suitable habitat question in section 2 of this SEP was marked "No."

DRAFT

Federal Species Matrix

Updated
11/17/2023

Sources of Impacts	Within Project	Eskimo Curlew	Pallid Sturgeon	Piping Plover	Rufa Red Knot
Bank Stabilization	X	NE	MA	MA	NLAA
Barge Staging	X	NE	NLAA CC ¹	NLAA CC ³	NLAA
Bridge Deck Replacement	X	NE	NLAA CC ⁴	NLAA CC ^{1, 2, 3}	NLAA
Bridge Painting	X	NE	NLAA CC ⁴	NLAA CC ^{1, 2}	NLAA
Bridge Rail Repair/Replacement	X	NE	NLAA CC ⁴	NLAA CC ^{1, 2}	NE
Bridge Substructure New, Replacement, or Repair - Perennial	X	NE	MA	NLAA CC ^{1, 2}	NLAA
Bridge Superstructure New, Replacement, or Repair - Perennial	X	NE	NLAA CC ⁴	NLAA CC ^{1, 2}	NLAA
Channel Grade Stabilization Structures	X	NE	MA	NLAA CC ^{1, 2}	NLAA
Clearing and Grubbing - Non-woody Vegetation	X	NE	NLAA CC ⁷	NLAA CC ^{1, 2}	NLAA
Clearing and Grubbing - Trees & Shrubs	X	NE	NLAA CC ⁷	NLAA CC ^{1, 2}	NLAA
Cofferdams	X	NE	NLAA CC ¹	NLAA CC ^{1, 2}	NLAA
Concrete Pavement Repair	X	NE	NE	NLAA CC ^{1, 2}	NLAA
Crack Sealing and Joint Sealing	X	NE	NE	NE	NLAA
Culvert New, Replacement, Extension, Repair - Ephemeral	X	NE	NE	NLAA CC ^{1, 2}	NLAA
Culvert New, Replacement, Extension, Repair - Perennial	X	NE	MA	NLAA CC ^{1, 2}	NLAA
Curb & Gutter	X	NE	NE	NE	NLAA
De-watering	X	NE	NLAA CC ⁵	NLAA CC ^{1, 2}	NLAA
Drilled Shafts	X	NE	NLAA CC ^{3, 5}	NLAA CC ^{1, 2}	NLAA
Earth Shoulder Construction	X	NE	NE	NE	NLAA
Erosion Control - Barriers	X	NE	NE	NLAA CC ^{1, 2}	NLAA
Erosion Control - Erosion Checks	X	NE	NE	NLAA CC ^{1, 2}	NLAA
Erosion Control - Inlet/Outlet Protection	X	NE	NE	NLAA CC ^{1, 2}	NLAA
Erosion Control - Mulching	X	NE	NE	NLAA CC ^{1, 2, 4}	NLAA
Erosion Control - Rolled Erosion Control	X	NE	NE	NLAA CC ^{1, 2}	NLAA
Erosion Control - Slope Interruption	X	NE	NE	NLAA CC ^{1, 2}	NLAA
Erosion Control - Vegetation	X	NE	NE	NLAA CC ^{1, 2, 4}	NLAA
Grading Within the Hinge Point	X	NE	NE	NE	NLAA
Grading Outside the Hinge Point	X	NE	NLAA CC ⁷ or MA*	NLAA CC ^{1, 2}	NLAA
Guardrail Repair, Replacement, or Installation with Soil Disturbance	X	NE	NE	NLAA CC ^{1, 2}	NLAA
Lighting, Traffic and Pedestrian Signals, Dynamic Message Signs w/ soil disturbance	X	NE	NE	NLAA CC ^{1, 2}	NLAA
Milling and/or In-place Recycling	X	NE	NE	NE	NE

Federal Species Matrix

Updated
11/17/2023

Sources of Impacts	Within Project	Eskimo Curlew	Pallid Sturgeon	Piping Plover	Rufa Red Knot
Nighttime work with Lights	X	NE	NE	NLAA CC ⁵	NLAA
Pavement Removal	X	NE	NE	NLAA CC ^{1,2}	NLAA
Paving	X	NE	NE	NE	NE
Piers	X	NE	NLAA CC ^{1,7}	NLAA CC ^{1,2}	NLAA
Pile Driving - Impact	X	NE	NLAA CC ¹	NLAA CC ^{1,2}	NLAA
Pile Driving - Vibratory	X	NE	NLAA CC ¹	NLAA CC ^{1,2}	NLAA
Pre-watering	X	NE	MA	NLAA CC ^{1,2}	NLAA
Removal of Structures and Obstructions	X	NE	NLAA CC ^{6,7}	NLAA CC ^{1,2}	NLAA
Resurfacing-Fog/Slurry Seal, Armor Coat/Chip Seal	X	NE	NE	NE	NE
Retaining Walls (NOT IN Water/Wetlands)	X	NE	NE	NLAA CC ^{1,2}	NLAA
Rock or Gravel Surfacing	X	NE	NE	NE	NE
Sidewalks and Bikeways	X	NE	NE	NE	NLAA
Signs with Soil Disturbance	X	NE	NE	NLAA CC ^{1,2}	NLAA
Stream Channel Impact, Ephemeral	X	NE	NE	NLAA CC ^{1,2}	NLAA
Stream Channel Impact, Perennial	X	NE	MA	NLAA CC ^{1,2}	NLAA
Temporary Crossing, Causeway, Work Platform	X	NE	NLAA CC ^{1,5,6}	NLAA CC ^{1,2}	NLAA
Underground Utility Conduit Installation	X	NE	NE	NLAA CC ^{1,2}	NLAA
Activities not included in the Matrix					
Blasting*	X	MA	MA	MA	MA
* For these activities, a May Affect determination was selected as there is suitable habitat located adjacent to the activity and/or requires further evaluation in the IPLE					

State Species Matrix

Updated
11/17/2023

Sources of Impacts	Within Project	Lake Sturgeon	Sturgeon Chub
Bank Stabilization	X	MA	MA
Barge Staging	X	NLAA CC ¹	NLAA CC ¹
Bridge Deck Replacement	X	NLAA CC ⁴	NLAA CC ⁴
Bridge Painting	X	NLAA CC ⁴	NLAA CC ⁴
Bridge Rail Repair/Replacement	X	NLAA CC ⁴	NLAA CC ⁴
Bridge Substructure New, Replacement, or Repair - Perennial	X	MA	MA
Bridge Superstructure New, Replacement, or Repair - Perennial	X	NLAA CC ⁴	NLAA CC ⁴
Channel Grade Stabilization Structures	X	MA	MA
Clearing and Grubbing - Non-woody Vegetation	X	NLAA CC ⁷	NLAA CC ⁷
Clearing and Grubbing - Trees & Shrubs	X	NLAA CC ⁷	NLAA CC ⁷
Cofferdams	X	NLAA CC ¹	NLAA CC ¹
Concrete Pavement Repair	X	NE	NE
Crack Sealing and Joint Sealing	X	NE	NE
Culvert New, Replacement, Extension, Repair - Ephemeral	X	NE	NE
Culvert New, Replacement, Extension, Repair - Perennial	X	MA	MA
Curb & Gutter	X	NE	NE
De-watering	X	NLAA CC ⁵	NLAA CC ⁵
Drilled Shafts	X	NLAA CC ^{3,5}	NLAA CC ^{3,5}
Earth Shoulder Construction	X	NE	NE
Erosion Control - Barriers	X	NE	NE
Erosion Control - Erosion Checks	X	NE	NE
Erosion Control - Inlet/Outlet Protection	X	NE	NE
Erosion Control - Mulching	X	NE	NE
Erosion Control - Rolled Erosion Control	X	NE	NE
Erosion Control - Slope Interruption	X	NE	NE
Erosion Control - Vegetation	X	NE	NE
Grading Within the Hinge Point	X	NE	NE
Grading Outside the Hinge Point	X	NLAA CC ⁷ or MA*	NLAA CC ⁷ or MA*
Guardrail Repair, Replacement, or Installation with Soil Disturbance	X	NE	NE
Lighting, Traffic and Pedestrian Signals, Dynamic Message Signs w/ soil disturbance	X	NE	NE
Milling and/or In-place Recycling	X	NE	NE
Nighttime work with Lights	X	NE	NE

State Species Matrix

Updated
 11/17/2023

Sources of Impacts	Within Project	Lake Sturgeon	Sturgeon Chub
Pavement Removal	X	NE	NE
Paving	X	NE	NE
Piers	X	NLAA CC ^{1,7}	NLAA CC ^{1,7}
Pile Driving - Impact	X	NLAA CC ¹	NLAA CC ¹
Pile Driving - Vibratory	X	NLAA CC ¹	NLAA CC ¹
Pre-watering	X	MA	MA
Removal of Structures and Obstructions	X	NLAA CC ^{6,7}	NLAA CC ^{6,7}
Resurfacing-Fog/Slurry Seal, Armor Coat/Chip Seal	X	NE	NE
Retaining Walls (NOT IN Water/Wetlands)	X	NE	NE
Rock or Gravel Surfacing	X	NE	NE
Sidewalks and Bikeways	X	NE	NE
Signs with Soil Disturbance	X	NE	NE
Stream Channel Impact, Ephemeral	X	NE	NE
Stream Channel Impact, Perennial	X	MA	MA
Temporary Crossing, Causeway, Work Platform	X	NLAA CC ^{1,5,6}	NLAA CC ^{1,5,6}
Underground Utility Conduit Installation	X	NE	NE
Activities not included in the Matrix			
Blasting*	X	MA	MA

* For these activities, a **May Affect** determination was selected as there is suitable habitat located adjacent to the activity and/or requires further evaluation in the IPLE

Individual Project Level Evaluation

Project Name: Decatur Bridge
Federal-aid number: STP-51-7(109)
Control Number: 32395

DRAFT

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.

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.

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>
Eskimo Curlew	<i>Numenius borealis</i>	FE, SE ⁿ
Lake Sturgeon	<i>Acipenser fulvescens</i>	SE ⁱ , ST ⁿ
Monarch butterfly	<i>Danaus plexippus</i>	PT
Pallid Sturgeon	<i>Scaphirhynchus albus</i>	FE, SE ⁱ , SE ⁿ
Piping Plover	<i>Charadrius melodus</i>	FT, SE ⁱ , ST ⁿ
Rufa Red Knot	<i>Calidris canutus rufa</i>	FT, ST ⁿ
Sturgeon Chub	<i>Macrhybopsis gelida</i>	SE ⁿ
Suckley's Cuckoo Bumble Bee	<i>Bombus suckleyi</i>	PE
Western Regal Fritillary	<i>Argynnis idalia occidentalis</i>	PT

Notes:

FE	Federally endangered
FT	Federally threatened
PT	Proposed for federal listing as threatened
PE	Proposed for federal listing as endangered
SE ⁱ	State endangered Iowa
SE ⁿ	State endangered Nebraska
ST ⁱ	State threatened Iowa
ST ⁿ	State threatened Nebraska

2. SPECIES EVALUATION

Eskimo Curlew (*Numenius borealis*)

Life History Information

The Eskimo Curlew is a medium-sized curlew, belonging to the family Scolopacidae. It is characterized by its long, decurved bill and mottled brown plumage, which provides camouflage in its tundra habitat. Adults typically measure about 30-35 cm in length (Wells and Lepage, 2012).

The breeding habitat of the Eskimo Curlew was primarily the lowland tundra regions of Canada's Northwest Territories and Nunavut. The environment is characterized by cold temperatures, short summers, and prolonged daylight during the breeding season. This habitat supports a variety of grasses and sedges, which are crucial for nesting material and cover. The curlews' breeding strategy involves laying a clutch of about four eggs, with both parents participating in the incubation process. Chicks are precocial and leave the nest soon after hatching, though they remain dependent on parental guidance and protection from Arctic predators (Wells and Lepage, 2012)

Eskimo Curlews undertake one of the longest migration routes of any bird, traveling from the Canadian Arctic to the southern tip of South America. Historically, they migrated through the Great Plains of North America, where they fed extensively on their principal food source of Rocky Mountain grasshoppers. The birds mainly fed on insects, marine invertebrates, and berries during migration (Gill et al., 1998)

The Eskimo Curlew's population began to decline drastically in the late 19th and early 20th centuries, primarily due to overhunting, habitat loss, and possibly the eradication of the Rocky Mountain Grasshopper (Gill et al., 1998). The species is listed as Critically Endangered and possibly extinct by the IUCN (BirdLife International, 2021). The last confirmed sightings were in the 1960s, but there have been some unconfirmed reports occasionally since then. Due to the rarity of potential sightings, it is likely that the species is extinct, but if not, the population is very small numbers (BirdLife International, 2021; USFWS, 2016a).

Survey History

The Nebraska Natural Heritage Database does not show any records for Eskimo Curlew. The last accepted sighting of Eskimo Curlew in the United States was in 1962 in Galveston, Texas.

Habitat Evaluation and Suitability

The Eskimo Curlew historically liked highly disturbed areas such as parts of prairies burned from fires and disturbed areas along rivers and lake banks where bison herds had been romping and roaming around. Within the action area fields that are plowed could offer suitable habitat for Eskimo Curlew. The species could have also utilized grasslands for foraging. However, the species is not considered to be within Nebraska any longer.

Analysis and Determination of Effects

Since the Eskimo Curlew is not expected to occur in Nebraska or Iowa, the Matrix identifies that all activities will have “**No effect**” on the species. This project also includes the activity *Blasting (Explosives)*. This activity is not included or defined within the Matrix and therefore the activity is being evaluated in this IPLE. *Blasting (Explosives)* is defined as the use of controlled explosives for demolition of structures. Since the Eskimo Curlew is unlikely to be within the Action Area, *Blasting* will not impact this species.

Indirect Effects

This project is not anticipated to result in any indirect effects on the Eskimo Curlew. Replacement of the existing bridge and associated work is not anticipated to result in any change in habitat or habitat suitability. All impacts will be temporary while work is occurring and effects later in time are not expected to occur.

Determination

Therefore, because the Eskimo Curlew is not expected to occur within the action area, the project will have “**No Effect**” on Eskimo Curlew or its habitat.

Pallid Sturgeon (*Scaphirhynchus albus*), **Lake Sturgeon** (*Acipenser fulvescens*), and **Sturgeon Chub** (*Macrhybopsis gelida*)

Due to similarities in habitat utilization and life history traits, the pallid sturgeon, lake sturgeon, and sturgeon chub will be evaluated concurrently.

Pallid Sturgeon Life History Information

The pallid sturgeon is a large river-obligate fish species inhabiting the Missouri and Mississippi Rivers and some tributaries from Montana to Louisiana. The pallid sturgeon is also known to intermittently occupy large tributary streams that may provide areas for fish spawning, nursery or refuge habitat, and foraging. Information on the pallid sturgeon’s life cycle, including feeding, habitat preferences, and recruitment, has greatly increased over the last two decades of intensive monitoring and research. Pallid sturgeon are generally bottom feeders, skimming the sandy reaches of rivers and streams. As opportunistic feeders, juvenile pallid sturgeon generally feed on aquatic insects, while the adults feed primarily on small fish. Pallid sturgeon can live up to 80 years or more (USFWS, 2014, 2025a, 2025b).

When pallid sturgeon are ready to spawn, they can migrate over 100 miles. Females usually spawn every 2 to 3 years, while males spawn almost every year after reaching maturity. Males mature at about 5 to 10 years old, while females do not mature until about 15 to 20 years old. (USFWS, 2025a, 2025b). Development includes a planktonic larval stage followed by rapid growth during the first several years. Spawning is believed to occur over coarse, hard, or sand substrates; however, sand is believed to be a crucial habitat feature for spawning activities. Development of their eggs requires a coarse or hard substrate for the eggs to adhere to, where they develop for 5 to 8 days. After the eggs hatch, the larvae are predominantly pelagic, drifting downstream for 11 to 17 days, depending on water temperature, before settling into nursery habitats.

Spawning appears to occur between March and July; generally, earlier in southern latitudes than those in the northern portion of the range (USFWS, 2025a). In the Lower Missouri River, pallid sturgeon are known to spawn from late April through May (USGS, 2016). It is believed that the recent lack of reproductive success in the Lower Missouri River is due to overall changes in the in-river morphology and the low survival rate of larvae during their drift phase. Pallid sturgeon populations have experienced a dramatic decline throughout their range since the mid- to late-1960s. Nearly all the historical habitat supporting the species, including the Missouri River, has been modified through channelization and construction of impoundments causing changes in water flow. These changes have blocked movements, destroyed or altered areas critical for all life stages, reduced forage opportunities, and altered the environmental conditions necessary for

survival. To prevent further extirpation, the Pallid Sturgeon Conservation Augmentation Program (PSCAP) was established and has demonstrated success in maintaining the species' presence within the Missouri River basin. However, if supplementation efforts were to cease, the species would once again face local extirpation within several reaches (USFWS, 2014). Research efforts primarily focus on increasing pallid sturgeon populations through stocking to reconstruct an optimal population size (Krentz, 1997). From 1992 to 2023, approximately 631,335 pallid sturgeon were stocked in the Missouri River system downstream of Gavins Point Dam in Yankton, South Dakota.

The U.S. Army Corps of Engineers (USACE), through the Missouri River Recovery Program, conduct pallid sturgeon population sampling within the Lower Missouri River as a product of the USFWS issuing the USACE *Biological Opinion on the Operation of the Missouri River Main Stem Reservoir System, Operation and Maintenance of the Missouri Riverbank Stabilization and Navigation Project, and Operation of the Kansas River Reservoir System* in 2000, with an amendment issued in 2003, and revised in 2018. One of the recommendations of the Biological Opinion was the development of the Pallid Sturgeon Population Assessment Program (PSPAP).

Pallid Sturgeon Survey History

According to data provided by the Nebraska Game and Parks Commission (NGPC, 2025a), numerous pallid sturgeon capture records are documented within the Action Area. The records extend both upstream and downstream of the Decatur Bridge (S051 03644) within the Tieville Bend and Upper Decatur Bend. The closest record is approximately 940 feet north of the Decatur Bridge. Of the 41 captures recorded between 2007 and 2023, 29 were hatchery, 8 were wild, and 4 were of unknown origin.

Pallid Sturgeon Habitat Evaluation and Suitability

As documented by the Nebraska Natural Heritage Program range map, the project limits are within the designated range of the pallid sturgeon (NGPC, 2011). As noted above, 41 pallid sturgeon captures have been recorded within the Action Area, with the closest capture being approximately 940 feet north of the existing bridge. The proximity and frequency of these records indicate that pallid sturgeon regularly move through the Action Area, and the close proximity of documented captures further indicates they may use the river reach immediately adjacent to the Project.

During a field survey conducted on October 4, 2023, the Missouri River habitat was evaluated for pallid sturgeon suitability. Within the Action Area, the Missouri River maintains a fast, free-flowing current over sandy to gravelly substrates typical of large-river habitats supporting pallid sturgeon migration and foraging. These conditions are consistent with habitat known to support pallid sturgeon during the non-spawning life stages. Based on the documented capture records and field-observed habitat characteristics, suitable pallid sturgeon habitat is present within the Action Area.

Lake Sturgeon Life History Information

The lake sturgeon is one of the largest freshwater fish in North America. Typically, adult lake sturgeon are about 4 to 6 feet long, weigh 30 to 80 pounds, and live to be 50 to 100 years old. The largest and oldest lake sturgeon grew to about 7 feet long, weighed 200 to 300 pounds, and lived 150 years. The lake sturgeon is a prehistoric species with a shark-like tail and a bony plate-armored covering. Lake sturgeon are widely distributed across the eastern and central United States and Canada. Contrary to its name, lake sturgeon can thrive in both lakes and rivers. Lake sturgeon often migrate back to the same river area where they were born to spawn. Lake sturgeon do not reproduce until they are 10 to 30 years old and spawn intermittently (USFWS, 2025c).

This migratory species moves between lakes and large river systems. Information on lake sturgeon's life cycle including feeding, habitat preferences, and recruitment is limited. They require shallow water to find food along lake and river bottoms. Their diet includes insect larvae, snails, mussels, and small fish. Lake sturgeon grow slowly, mature later, and spawn irregularly. Lake sturgeon are thought to migrate long distances upstream to natal areas in search of spawning grounds (Becker, 1983). However, these migrations are often prevented by natural barriers and human alterations of lake and river systems. Spawning usually occurs along the outer bend of rivers between April and early June. The development of their eggs requires gravel or rocks for the eggs to adhere to until hatching. Spawning areas are impacted by erosion, sedimentation, and discharges that influence river water quality. However, no natural reproduction has been documented in the Missouri River in Nebraska (NGPC, 2025b).

Lake sturgeon are found in the Great Lakes, Hudson Bay, and large river systems, including the Mississippi River basin and the Missouri River. However, they are uncommon in the Missouri River bordering Nebraska and Iowa. The current status of lake sturgeon throughout the Mississippi basin is considered scarce and modern population assessment studies and information on population changes are not readily available. Currently, the lake sturgeon is among the rarest sturgeon species captured in the Missouri River along Nebraska's eastern border (NGPC, 2022). Like the pallid sturgeon, lake sturgeon populations are negatively impacted by river channelization, construction of impoundments, and related changes in water flow. Dam construction along their natural migration pathways has contributed to the decline of their habitat and historical range.

While dams continue to pose a threat to lake sturgeon across their range by reducing access to spawning and nursery habitat, significant efforts have been undertaken to restore populations by removing dams, installing fish passage structures, regulating water releases, restoring habitat, and stocking. Stocking efforts have successfully reestablished lake sturgeon in areas where they were formerly extirpated, including the Genesee River (New York), St. Louis River (Minnesota and Wisconsin), Red River of the North (Minnesota and North Dakota), Tennessee and Cumberland Rivers (Alabama, Kentucky, Mississippi, North Carolina, and Tennessee), Middle Mississippi River (Missouri), and Coosa River (Alabama and Georgia), as well as bolstering many existing populations across the species' range (USFWS, 2025c).

Lake Sturgeon Survey History

The Nebraska Natural Heritage Database does not show any records for Lake Sturgeon within 5 miles. NDOT and Iowa DOT have not conducted any surveys for lake sturgeon within the Action Area.

Lake Sturgeon Habitat Evaluation and Suitability

As documented by the Nebraska Natural Heritage Program range map, the project limits are within the designated range of the lake sturgeon (NGPC, 2011). The project is over the Missouri River, which provides large-river habitat that could support lake sturgeon for migration and foraging.

During a field survey conducted on October 4, 2023, the Missouri River habitat was evaluated for lake sturgeon suitability. Within the Action Area, the Missouri River maintains a fast, free-flowing current over sandy to gravelly substrates typical of large-river habitats supporting lake sturgeon migration and foraging. These habitat conditions are consistent with those known to support lake sturgeon during non-spawning life stages. Based on the project's location on the Missouri River and the field-observed habitat characteristics, suitable habitat for lake sturgeon is present within the Action Area.

Sturgeon Chub Life History Information

The sturgeon chub is a small minnow species native to the Missouri River basin and Mississippi River. In Nebraska, it is found in the Missouri River and lower portions of the Platte River. They are found in fast, free-flowing rivers with highly turbid water where low visibility conditions help protect them from predators. Individuals reach sexual maturity at approximately 2 years of age, with a life span of up to 4 years of age, although most do not survive past 2 years (Rahel and Thel, 2004; NGPC, 2025c). Sturgeon chub primarily eat invertebrates, including aquatic insects and benthic organisms. The species requires gravel riffles and runs in turbid running water for their life history requirements (Weldon, 1993). Information on spawning habitat for sturgeon chub is limited, although it is thought to spawn from May through August. Fertilized sturgeon chub eggs are slightly heavier than water and typically drift in the river current for several days as they develop. Dams and other river impoundments can impede the movement and development of sturgeon chub eggs (MDC, 2025).

Sturgeon chub are known to intermittently occupy tributary streams. In Nebraska, the historic range of sturgeon chub included the Missouri, Platte, and Loup rivers. The species remains present in the Missouri River along the eastern border of Nebraska, but its abundance appears to be low. Like the pallid sturgeon and lake sturgeon, sturgeon chub populations are negatively impacted by river channelization, construction of impoundments, and related changes in water flow. Flow alterations from dams, diversions, and irrigation operations threaten the spawning of sturgeon chub (Rinne et al., 2005). Additionally, dams slow water movement downstream, contributing to siltation and

preventing the scouring needed to maintain the desired gravel and rocky substrates (NGPC, 2025c).

Sturgeon Chub Survey History

NDOT and Iowa DOT have not conducted species-specific surveys for sturgeon chub within the Action Area. According to the Nebraska Natural Heritage Database, there are records of sturgeon chub within 1 mile of the project.

From 1994 to 1999, trap nets were used to sample the Missouri River in Nebraska, and 2 sturgeon chub were identified among 32,650 fish collected. The same study area was sampled again with a bottom trawl in 1996, capturing nine sturgeon chub (USFWS, 2001).

Sturgeon Chub Habitat Evaluation and Suitability

As documented by the Nebraska Natural Heritage Program range map, the project limits are within the designated range of the sturgeon chub (NGPC, 2011). During a field survey conducted on October 4, 2023, Missouri River habitat was evaluated for sturgeon chub suitability. Sturgeon chub are typically associated with large, turbid rivers and are known to use areas with flowing water and sandy to gravelly substrates for movement and foraging. Within the Action Area, the Missouri River is characterized by fast, free-flowing, turbid water with low visibility and a predominantly sandy to gravelly substrate. These habitat conditions are consistent with those used by sturgeon chub, particularly during non-spawning life stages. Although survey history indicates sturgeon chub occur in low abundance in sampled portions of the Missouri River, it indicates that suitable habitat is within the Action Area. Based on the project's location within the species' designated range and the field-observed habitat characteristics, suitable habitat for sturgeon chub is present within the Action Area.

Pallid Sturgeon, Lake Sturgeon, and Sturgeon Chub Analysis and Determination of Effects

Project Activities

The Matrix of Effects Table identified the following 16 activities as **“May Affect, Not Likely to Adversely Affect”** pallid sturgeon (PS), lake sturgeon (LS), and sturgeon chub (SC) with the implementation of conservation conditions PS/LS/SC-1, PS/LS/SC-3, PS/LS/SC-4, PS/LS/SC-5, PS/LS/SC-6, and PS/LS/SC-7: *Barge Staging; Bridge Deck Replacement; Bridge Painting; Bridge Rail Repair/Replacement; Bridge Superstructure New, Replacement, or Repair – Ephemeral; Bridge Superstructure New, Replacement, or Repair – Perennial; Clearing and Grubbing – Non-woody Vegetation; Clearing and Grubbing – Trees & Shrubs; Cofferdams; De-watering; Drilled Shafts; Piers; Pile Driving – Impact; Pile Driving – Vibratory; Removal of Structures and Obstructions; and Temporary Crossing, Causeway, Work Platform.*

The Matrix identified a “**May Affect**” determination for the PS, LS, and SC for the following activities: *Bank Stabilization; Bridge Substructure New, Replacement, or Repair – Perennial; Channel Grade Stabilization Structures; Culvert New, Replacement, Extension, Repair – Perennial; Grading Outside the Hinge Point; and Pre-watering.*

This project also includes the activity *Blasting (Explosives)*. This activity is not included or defined within the Matrix, and therefore, the activity is being evaluated in this IPLE.

Matrix Identified May Affect, not Likely to Adversely Affect Activities that Warrant Further Discussion

As noted above, 16 activities were identified in the Matrix of Effects Table as “**May Affect, Not Likely to Adversely Affect,**” providing that certain conservation conditions are implemented. However, some of the identified conservation conditions may not be applicable, require modification, or there is a unique circumstance for an activity that warrants further discussion.

Temporary Crossing, Causeway, Work Platform

Through the matrix of effects, the activity Temporary Crossing, causeway, Work Platform is covered via the conservation conditions PS/LS/SC-1, 5, and 6. However, PS/LS/SC-6 has been modified. The original intent of the conservation condition has not been altered, but was modified to clarify that work, excluding vibratory or impact driving, is allowed within the cofferdam during the spawning season. It also clarifies the use of barges during the spawning period (See Section 3). Additionally, since the contractor will design the temporary bridge at a later date, NDOT will share the temporary bridge plans with the USFWS and NGPC at least 30 days before construction is anticipated to start. Therefore, NDOT has created the custom conservation condition PS/LS/SC-A. Further, the temporary bridge will be fully removed from the channel once work is completed on the project, following general conditions of a Section 404 permit, which states “temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations.” Therefore, the temporary bridge will not cause any long-term modifications in the channel. Therefore, *Temporary Crossing, Causeway, Work Platform* “**May Affect, Not Likely to Adversely Affect**” the PS, LS, and SC with the implementation of conservation conditions PS/LS/SC-1, modified PS/LS/SC-6, PS/LS/SC-5, and PS/LS/SC-A.

Bridge Deck Replacement, Bridge Painting, Bridge rail Repair / Replacement, and Bridge Superstructure New, Replacement, or Repair – perennial

Through the matrix of effects, the activity *Bridge Deck Replacement, Bridge Painting, Bridge rail Repair / Replacement, and Bridge Superstructure New, Replacement, or Repair – perennial* “**May Affect, Not Likely to Adversely Affect**” PS/LS/SC with the implementation of the conservation condition PS/LS/SC – 4. PS/LS/SC -4 states “Bridge debris will be captured and/or contained.” However, for the activity *Removal of Structures*

and Obstructions, the bridge is required to be dropped into the channel to be removed which is conflicting with PS/LS/SC – 4 (Further discussion of Removal of Structures and Obstructions occurs in the following paragraph). Therefore, a custom conservation condition, PS/LS/SC-B, has been developed to clarify where bridge debris will need to be captured and/or contained. PS/LS/SC-B states that “During all phases of the bridge removal that do not involve dropping the bridge into the channel, such as the removal of the bridge deck and rails, all debris will be captured and/or contained. During phases of bridge removal that include dropping the bridge into the channel, all materials will be removed from the channel as promptly as feasible. The dropping and removal of the bridge from the channel will not occur between March 1 and July 31”. This conservation condition maintains the intent of PS/LS/ SC – 4. Therefore, the activity *Bridge Deck Replacement, Bridge Painting, Bridge rail Repair / Replacement, and Bridge Superstructure New, Replacement, or Repair – perennial* “**May Affect, Not Likely to Adversely Affect**” PS, LS, and SC with the implementation of the conservation condition PS/LS/SC – B.

Removal of Structures and Obstruction

Through the Matrix of Effects Table, the activity *Removal of Structures and Obstructions* “**May Affect, Not Likely to Adversely Affect**” the PS, LS, and SC with conservation conditions PS/LS/SC-6 and 7. However, for the activity *Removal of Structures and Obstructions*, the bridge is required to be dropped into the channel to be removed, therefore PS/LS/SC-B was developed. As discussed before, PS/LS/SC-B was developed to clarify when bridge debris will need to be captured and/or contained. Dropping the bridge into the channel must be completed outside the spawning season, and the debris must be removed as promptly as possible, as outlined by the 404 permit (See Section 3). By implementing PS/LS/SC-B, activities requiring the bridge structure to be dropped in the channel when the species are less vulnerable, outside of the spawning season. Further restrictions may be stipulated in U.S. Coast Guard (USCG) and USACE permits issued for the project. PS/LS/SC-B maintains the intent of PS/LS/SC-4; therefore, PS/LS/SC-4 was removed from the list of conservation conditions. The USCG Bridge Permit (Section 9) will likely specify the time limit for removal of bridge debris from the channel, which is typically 24 to 48 hours, although the USCG may allow a longer time limit at Decatur due to the extremely low volume of navigation traffic, or if demolition is performed outside of navigation season (i.e., between December and February).

An asbestos survey was conducted for the existing bridge; no asbestos was identified. Lead-based paint on the bridge has been removed during previous repairs/rehabilitation or has been covered with new paint, but some lead-based paint remnants may remain. When the bridge is demolished, the bridge components will be retrieved and transported to an appropriate landfill. Per the Hazardous Materials Review, the contractor is required to create an Implementation Plan to dispose of waste in accordance with NDOT’s Standard Specification for Highway Construction Section 732 (Lead-based Paint Removal). Regardless of toxicity, the contractor is required to take extreme caution to minimize the potential for painted material or debris to cause, or threaten to cause, pollution of the air, land, or waters of the State. Therefore, the activity *Removal of Structures and Obstructions*

“May Affect, Not Likely to Adversely Affect” the PS, LS, and SC with the implementation of modified PS/LS/SC-6, PS/LS/SC-7, and PS/LS/SC-B.

Matrix Identified May Affect Activities

The Matrix identified a **“May Affect”** determination for the PS, LS, and SC for the following activities: *Bank Stabilization; Bridge Substructure New, Replacement, or Repair – Perennial; Channel Grade Stabilization Structures; Culvert New, Replacement, Extension, Repair – Perennial; Grading Outside the Hinge Point; and Pre-watering* due to potential habitat modification, flow modifications, direct takings, and/or by increasing sedimentation in the channel.

Habitat Modifications and Flow Modifications

The bridge replacement over the Missouri River will result in permanent in-water structures, including the replacement and addition of riprap along the banks to protect bridge abutments and the construction of bridge piers within the active channel. These features represent new hard points that could locally influence flow patterns and consequently affect habitat availability for PS, LS, and SC.

The Missouri River within the project area is highly modified due to extensive historical and ongoing bank stabilization. Both the eastern and western banks contain wing dams that regulate channel flow patterns and available aquatic habitat. The existing bridge includes riprap bank stabilization along the western bank. In addition, the current bridge has 10 piers, with 1 pier located on the OHWM and 1 located within the Missouri River channel. These features represent the existing environmental baseline conditions for PS, LS, and SC habitat within the action area.

The proposed bridge will include 13 piers, with 2 piers impacting approximately 0.03 cubic acres of channel. These 2 piers are in a similar location to the existing in-channel piers, shifted approximately 50 feet north. The total footprint of proposed piers and riprap is comparable to existing conditions. The existing pier on the OHWM will be removed and replaced with rip-rap (0.008 cubic acres of permanent channel impact). As a result, the project would not introduce substantial new hardpoints that would result in flow modifications or habitat alterations beyond those already present in the environmental baseline. Additionally, the proposed bridge will be approximately 774 feet longer, which may allow for improved channel function should future reductions in bank stabilization occur.

A culvert, approximately 72 inches high and 255 feet long, is located southeast of the intersection of Marina Drive and 3rd Avenue in Decatur and is proposed to be removed and reset. Riprap to address scouring and channel cleanout (through vegetation removal and grading) will also be required. A perennial stream flows through this culvert in a southeasterly direction into Elm Creek, which then flows into the Missouri River. This culvert replacement can temporarily modify stream flow into the Missouri Elm Creek confluence, resulting in localized changes in velocity and deposition patterns during construction. The culvert work will impact approximately 0.015 cubic acres of channel. However, a culvert and some bank stabilization currently exist within the proposed work

area. As a result, the proposed riprap and culvert replacement would not introduce substantial new hardpoints that would result in flow modifications or habitat alterations beyond those already present in the environmental baseline.

Considering the extensive existing bank stabilization along the project, the replacement of the bridge with a similar in-channel pier placement, and the replacement culvert is similar to the existing one, the project would not measurably alter the environmental baseline. Permanent effects on PS, LS, and SC habitat and Missouri River flow are expected to be negligible and discountable.

Direct Taking

Work occurring directly in the channel has the possibility of resulting in directly taking of PS/LS/SC. The bridge replacement will require dropping the bridge into the channel and working directly within the channel and below the OHWM. The risk of direct takings is primarily associated with in-water demolition and construction activities. PS/LS/SC are most vulnerable during the spawning season (March 1 and July 31) as young (juveniles and embryonic stages) are less mobile. To avoid direct takings of PS/LS/SC, including embryonic and juvenile individuals, work within the channel will occur outside of the spawning season or will occur within cofferdams (except pile driving) when the species are the least vulnerable (PS/LS/SC-6 and PS/LS/SC-B). Therefore, by avoiding pile driving activities and directly working in the channel when PS/LS/SC are most vulnerable, during their spawning season, this project is not likely to result in mortality to the PS/LS/SC.

Sedimentation in the Channel

This project will require work within the channel, below or near the OHWM, or that could result in sedimentation in the channel. *Pre-watering* may be used to achieve optimal moisture content for earth fill material placed for the project, primarily for the new roadway embankment. Although not required in the channel, *Pre-watering* can generate temporary run-off from disturbed areas, which may transport sediment to receiving water. The culvert work and bank stabilization activities could also result in an increase in sedimentation in the channel. Because the tributary the culvert is located on is hydrologically connected to the Missouri River, temporary pulses of sediment from the stream channel can be transported downstream if not properly controlled, potentially affecting water quality and habitat conditions. Additionally, grading will be required along the entire length of the project, which can introduce soil disturbances along the OHWM and erosion into the channel. These activities can increase turbidity and sedimentation and, in turn, affect aquatic habitat conditions or foraging resources for sturgeon species downstream.

A Stormwater Pollution Prevention Plan (SWPPP)/Erosion Control Plan will be developed, and the soil erosion and sediment control Best Management Practices (BMPs) included in design documents will be followed to reduce the amount of soil particles being deposited into receiving waters. Upland soil disturbances will also be designed to avoid or minimize sedimentation in these waters using silt fences and bank stabilization practices (PS/LS/SC-7). Also, shredded wood derived from tree removal on this project will be used as part of the erosion control plan. The shredded wood interlocks, creating a solid form that excels at reducing erosion while also being highly permeable and biodegradable. Additionally, an

NPDES permit will be obtained, and the conditions outlined in the permit will be followed to regulate the amount of pollutants being discharged into the Missouri River. Therefore, as sedimentation into the channel will be temporary and minimized through the implementation of conservation conditions and BMP's established in the SWPPP/Erosion Control Plan, *Sedimentation in the Channel* will have discountable and insignificant impacts to PS/LS/SC.

Therefore, with the implementation of the aforementioned conservation conditions, BMPs, and erosion plans, the activities *Bank Stabilization; Bridge Substructure New, Replacement, or Repair – Perennial; Channel Grade Stabilization Structures; Culvert New, Replacement, Extension, Repair – Perennial; Grading Outside the Hinge Point; and Pre-watering* are determined to **“May Affect, Not Likely to Adversely Affect”** the pallid sturgeon, lake sturgeon, and sturgeon chub or their habitat.

Activities not covered under the Matrix of Effects Table

The activity *Blasting (Explosives)* is not an included activity in the Matrix of Effects Table. Therefore, the effects of this activity are evaluated through this IPLE. *Blasting (Explosives)* may be required for the removal of the truss spans of bridge S051 03644. As noted above, bridge debris or material will not be dropped into the channel during the spawning season (see PS/LS/SC-B). PS/LS/SC-B avoids the spawning season when the species are most vulnerable. The USCG Bridge Permit (Section 9) will specify the time limit for removal of bridge debris from the channel, which is usually 24 to 48 hours. The blasting activity would result in similar or lower sound levels (FHWA, 2006, 2018) and impacts similar to vibrations from impact and vibratory pile driving. The vibrations associated with this activity could cause developmental impacts or mortality in embryonic PS/LS/SC and could result in changes in behavior, such as spawning or migration behaviors. However, this work will strictly occur outside of the spawning season (March 1 – July 31) per conservation condition PS/LS/SC-C. By avoiding this activity during the spawning seasons of PS, /LS, and /SC, work will be avoided when the species are most vulnerable in the Missouri River. Therefore, by avoiding any *Blasting (Explosives)* activities during the PS/LS/SC spawning season, this activity **“May Affect, Not Likely to Adversely Affect”** the PS, LS, and SC.

Additionally, to minimize the spread of invasive species into the Missouri River, NDOT will implement the conservation condition PS/LS/SC-D. Prior to use at the construction site, barges and any equipment that will be used in the water must be decontaminated of invasive aquatic species according to protocol. By implementing this conservation condition, any activities requiring work within the waterway will avoid introducing invasive aquatic species that may impact PS, LS, and SC and their habitat. This conservation condition further justifies that project activities **“May affect, Not Likely to Adversely Affect”** PS, LS, and SC or its habitat.

Indirect Effects

The pallid sturgeon and sturgeon chub have been known to occur within 1 mile of the project in the last 30 years. The proposed bridge replacement project is not expected to

result in long-term effects or changes in land use, population density, or growth. No other future state or private activities are reasonably certain to occur within the project Action Area that would impact these species.

The replacement bridge will be longer than the existing bridge, increasing the frequency of the hydrologic connection between waters in the east overbank. The wetlands and backwater pools in the Action Area become connected to the main river channel at flood stage. These areas fill with water during floods and retain it when flood waters recede. However, the existing roadway embankment separates the wetlands and pools north and south of IA-175. Currently, a 40-year flood (or larger) is required for a hydrologic connection to occur between the wetlands and backwater pools on either side of IA-175. More pooling occurs on the north side of the highway than on the south side. The new bridge will be approximately 774 feet longer than the existing bridge, extending primarily farther east. The ground level below the additional spans will be approximately 25 feet lower than the existing roadway embankment. A 5-year flood (or larger) will provide hydrologic connection between the wetlands and backwater pools on either side of the highway. This will result in less pooling on the north side of the highway and more pooling on the south side.

These changes in flow patterns alter velocities and sediment movement, subsequently altering the distribution of aquatic and upland habitat conditions. This replacement of the bridge and associated work is not anticipated to result in any long-term change in habitat or habitat suitability for PS/LS/SC.

Determination

Therefore, with the current environmental baseline and the implementation of BMPs, a SWPPP/Erosion Control Plan, and the conservation conditions PS/LS/SC-1, 2, 3, 5, 6, 7, and PS/LS/SC-A, B, C, D this project “**May Affect, Not Likely to Adversely Affect**” the PS, LS, and SC or their habitat.

Monarch Butterfly (*Danaus plexippus*)

Life History Information

The monarch butterfly is a widespread species in the family Nymphalidae, best known for its long-distance migration and obligate association with milkweed (*Asclepias* spp.) during its larval stage (Oberhauser et al., 2017). Monarch butterflies occur throughout most of North America, with breeding populations documented across the continental U.S. and southern Canada, and overwintering populations in central Mexico and along the California coast (Brower et al., 2012). Preferred breeding habitats include open fields, meadows, and roadside corridors where milkweed and nectar-producing plants are present. The larval stage is obligately dependent on milkweed, which serves as the sole host plant and a source of toxic cardenolides sequestered by larvae for predator deterrence (Malcolm, 1991).

Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. The black border has a double row of white spots, present on the upper side of the wings. Adult monarchs are sexually dimorphic, with males having narrower wing venation and scent patches. The bright coloring of a monarch serves as a warning to predators that eating them can be toxic (USFWS, 2024a, 2025e).

The monarch is well known for its phenomenal long-distance migration in the North American populations. The two North American migratory populations, located east and west of the Rocky Mountains, have been monitored at their respective overwintering sites in Mexico and California since the mid-1990s. While these populations fluctuate year-to-year with environmental conditions, these census data indicate long-term declines in the population abundance at the overwintering sites in both populations. Migratory monarchs in North America are the ancestral population for all other monarch populations, and more than 90 percent of monarchs worldwide occur in the North American migratory populations (USFWS, 2024a).

Monarchs undertake an annual, continent-scale migration involving multiple generations. In late summer and early fall, the super generation migrates southward. Eastern populations travel up to 4,000 km to overwintering sites in the Oyamel fir (*Abies religiosa*) forests of central Mexico, while western populations overwinter along the coast of California in groves of eucalyptus (*Eucalyptus* spp.), Monterey pine (*Pinus radiata*), and Monterey cypress (*Cupressus macrocarpa*) (Calvert and Brower, 1986; Pelton et al., 2016; Brower et al., 2012). During overwintering, monarchs form dense clusters on trees, conserving energy and moisture while subsisting on lipid reserves.

Monarchs produce multiple generations annually. Eggs are laid singly on the underside of milkweed leaves and hatch within approximately 3 to 5 days (Oberhauser, 2004). The larval stage lasts approximately 10 to 14 days and comprises five instars during which the caterpillar consumes large quantities of milkweed foliage. Pupation occurs in a suspended chrysalis, within which metamorphosis takes 8 to 15 days, depending on ambient temperature. Adult monarchs emerging from early-season broods typically live 2 to 6 weeks, while individuals from the final generation—often referred to as the “migratory” or “super generation”—may live up to 8 or 9 months (Brower, 1995; Tenger-Trolander et al., 2019).

In many regions where monarchs are present, monarchs breed year-round. Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration, and live for an extended period. In the fall, in both eastern and western North America, monarchs begin migrating to their respective overwintering sites. This migration can take monarchs distances of over 3,000 km and last for over 2 months. In early spring (February-March), surviving monarchs break diapause and mate at the overwintering sites before dispersing. The same individuals that undertook the initial southward migration begin flying back through the breeding grounds and their offspring start the cycle of generational migration over again (USFWS, 2024a, 2025e).

In early spring, overwintering monarchs begin a staggered northward remigration. Unlike the southward flight, which is completed by a single generation, the return to northern

breeding grounds requires two to three generations. The first generation migrates from overwintering sites to the southern U.S., reproduces, and dies. Subsequent generations continue migrating and reproducing until monarchs recolonize their full northern range by late spring or early summer (Flockhart et al., 2013). Environmental conditions, including temperature, photoperiod, and host plant availability, regulate the progression of this migration. The monarch's full annual life cycle typically encompasses four to five generations, with only the final generation completing the entire southward migration and overwintering phase. This complex migration strategy increases vulnerability to threats throughout its range.

Monarchs in Nebraska and Iowa are part of the eastern population. These butterflies travel north in the spring, from Mexico to Canada, over two to three successive generations, breeding along the way. Individual monarchs disperse as far north as they can physiologically tolerate based on climatic conditions and available vegetation (Flockhart et al., 2013). The number of generations of monarchs produced each year can vary between three and five and is dependent upon environmental conditions (Brower, 1996).

Adult monarch butterflies during breeding and migration require a diversity of blooming nectar resources, which they feed on throughout their migration routes and breeding grounds (spring through fall). Monarchs also need milkweed (for both oviposition and larval feeding) embedded within this diverse nectaring habitat. The correct phenology, or timing, of both monarchs and nectar plants and milkweed is important for monarch survival. Additionally, many monarchs use a variety of roosting trees along the fall migration route (USFWS, 2024a).

The eastern population of monarchs overwinters in Mexico, where this microclimate is provided by forests primarily composed of oyamel fir trees (*Abies religiosa*), on which the monarchs form dense clusters (Williams and Brower, 2015). The sites used for overwintering occur in mountainous areas west of Mexico City located between elevations of 2,900 and 3,300 meters (Slayback and Brower, 2007). During migration to overwintering sites, most monarchs are in reproductive diapause but continue to need blooming nectar plants throughout the migratory habitat to provide sugar that is eventually stored as lipid reserves (Brower et al., 2015). On their return, monarchs lay eggs and thus need both nectar sources and milkweed.

Monarch butterfly populations have experienced significant declines over the past two decades, attributed to multiple factors, including widespread loss of milkweed due to herbicide use in agricultural landscapes, degradation of overwintering habitat in Mexico and California, and climate-related stressors affecting all life stages (Pleasants and Oberhauser, 2013; Flockhart et al., 2015).

Current conservation strategies emphasize habitat restoration through the planting of native milkweed and nectar plants, management of pesticide use, and protection of overwintering habitats.

Survey History

Neither NDOT or Iowa DOT have conducted surveys for the monarch butterfly on this project. However, on October 4, 2023, Burns & McDonnell ecologists conducted a field-based habitat assessment on foot within the project's Initial Survey Area (including Nebraska and Iowa) encompassing approximately 224 acres. They determined that small patches of milkweed and other flowering plants occur along roadsides and fence rows. Monarch butterflies are widespread and likely to occur within the Action Area annually from late spring to early fall.

Habitat Evaluation and Suitability

As noted above, the Initial Survey Area contains small patches of milkweed and other flowering plants along roadsides and fence rows that may support larval and adult monarchs. Therefore, suitable habitat for the monarch butterfly exists within the Action Area.

Analysis and Determination of Effects

Construction activities on this project could impact monarch butterflies by causing direct harm to the species or resulting in the loss of milkweed and floral resources. However, the adult monarch butterflies are highly mobile and will readily avoid being impacted by project activities. Construction activities conducted during periods when egg or larval monarch butterflies are present on milkweed plants could result in direct mortality of larvae. Egg and larval monarch butterflies cannot avoid being taken if present. To avoid this impact, Conservation Measure MB-A would be implemented, which requires all initial vegetation disturbance (e.g., clearing, grubbing, mowing) to occur before May 1 or after October 1. This seasonal restriction ensures that milkweed plants will not be disturbed when monarch caterpillars are present. By implementing this measure, the direct mortality of monarch caterpillars would be avoided during construction activities. In addition, the Project area would be reseeded with native vegetation according to conservation condition S-3, which includes a variety of flowering plants and milkweeds suitable for monarch butterflies.

Determination

Due to the ample amount of habitat in the surrounding landscape compared to the proposed amount of habitat being impacted, as well as the proposed conservation conditions and re-seeding efforts with native vegetation that would provide floral resources for the monarch butterfly, it is determined that the Project would not jeopardize the monarch butterfly and that it **“May Affect, Not Likely to Adversely Affect”** the monarch butterfly or its habitat.

Piping Plover (*Charadrius melodus*)

Life History Information

The Piping Plover is a small, stocky shorebird about 7 inches long with a wingspan of about 15 inches. Adults have a sand-colored upper body, white undersides, and orange legs throughout the year. During the breeding season, adults acquire a dark narrow breast band, a dark strip across the forehead, and a black-tipped orange bill (Campbell, 2003). The species breeds in three main areas in North America: the Northern Great Plains (Iowa, northwestern Minnesota, Montana, Nebraska, North and South Dakota, Alberta, Manitoba, and Saskatchewan); in the Great Lakes (Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, Wisconsin, and Ontario); and along the Atlantic Coast from Newfoundland to Virginia and (formerly) North Carolina. It winters on the Atlantic and Gulf coasts from North Carolina to Mexico, including coastal Texas, and, less commonly, in the Bahamas and West Indies (50 FR 50726, 11 December 1985). Migration occurs both through the interior of North America east of the Rocky Mountains (especially in the Mississippi Valley) and along the Atlantic Coast (AOU, 1998). Few data exist on the migration routes of this species.

The USFWS listed the Piping Plover as threatened for the Atlantic Coast and Northern Great Plains on December 11, 1985 (50 Federal Register [FR] 50726–50734), while the species is federally listed endangered in the Great Lakes watershed. Shorebird hunting during the early 1900s caused the first known major decline of Piping Plovers (USFWS, 2003). Since then, loss or modification of habitat resulting from commercial, residential, and recreational developments, dune stabilization, damming and channelization of rivers (eliminating sandbars, encroachment of vegetation, and altering water flows), and wetland drainage have further contributed to the decline of the species. Additional threats include human disturbances caused by recreational use of habitat and predation of eggs by feral pets (USFWS, 1995).

Piping plovers typically inhabit the shorelines of oceans, rivers, and inland lakes. Nest sites include sandy beaches, especially where scattered tufts of grass are present; sandbars; causeways; bare areas on dredge-created and natural alluvial islands in rivers; gravel pits along rivers; silty flats; and salt-encrusted bare areas of sand, gravel, or pebbly mud on interior alkali lakes and ponds. Piping plovers forage by gleaning invertebrates from the substrate or running and pecking on the substrate with short runs between pecks (Haig and Elliott-Smith, 2004). The Northern Great Plains Piping Plovers breed along rivers and reservoirs in Nebraska, South Dakota, North Dakota, and Montana. Also, they nest on alkaline (naturally salty) lakes in North Dakota, Montana, and on sand and gravel mines in Nebraska (USFWS, 2016). On the wintering grounds, these birds use beaches, mudflats, sandflats, algal mats, emergent seagrass beds, dunes, and offshore spoil islands (AOU, 1998; Campbell, 2003).

Migration north from wintering grounds in Texas to the breeding grounds begins in late February, with most birds gone by mid-May, although some birds will remain along the coast year-round. While major staging areas such as Bolivar Flats, Texas, or San Luis Pass,

Texas, can hold more than 100 individuals at peak migration, birds arrive and leave in small groups (Haig, 1992). Piping plovers begin to arrive on the breeding grounds in the first half of April, with courtship, followed by nesting, beginning in mid-to-late April. Both sexes share incubation duties, with incubation lasting 25 to 28 days. Hatching begins in late May to early June, generally peaking in June and early July. Chicks fledge 25 to 35 days after hatching and are capable of sustained flight soon after fledging (USFWS, 2016). Critical habitat for the Northern Great Plains breeding population was designated on September 11, 2002 (67 FR 57637). Nineteen critical habitat units originally contained approximately 183,422 acres of prairie alkali wetlands, inland and reservoir lakes, and portions of four rivers totaling approximately 1,207.5 river miles in Montana, Nebraska, South Dakota, North Dakota, and Minnesota. However, the Nebraska portion of the critical habitat was vacated by the U.S. District Court on October 13, 2005 (USFWS, 2020).

Survey History

NDOT and Iowa DOT have not conducted any surveys on this project for the Piping Plover. According to the Nebraska Natural Heritage database, no records of the Piping Plover occur within 5 miles of the project alignment.

Habitat Evaluation and Suitability

According to the USFWS range map for the piping plover (USFWS, 2025f), the project Action Area is within the current range of the piping plover, although it is not within the current breeding range of the piping plover as documented by the Nebraska Natural Heritage Program range map (NGPC, 2019). As determined from field and desktop evaluations, the Action Area includes vegetated sandy beaches along the Missouri River, both north and south of the Decatur Bridge. Several unnamed waterbodies also occur in the Action Area. These beaches and shorelines of the waterbodies may not be suitable as nesting habitat because they are very narrow, too vegetated, and in some areas steeply sloped, but they may provide foraging habitat. At the bridge location, the Missouri River is frequently disturbed by human activities such as boat traffic and pedestrian occupation. Nevertheless, potentially suitable habitat is available for the piping plover in the project Action Area.

Analysis and Determination of Effects

The Matrix of Effects Table identified the following 39 activities as **“May Affect, Not Likely to Adversely Affect”** for the piping plover (PP) with the implementation of conservation conditions PP-1, PP-2, PP-3, PP-4, and/or PP-5: *Barge Staging; Bridge Deck Replacement; Bridge Painting; Bridge Rail Repair/Replacement; Bridge Substructure New, Replacement, or Repair – Perennial; Bridge Superstructure New, Replacement, or Repair – Ephemeral; Bridge Superstructure New, Replacement, or Repair – Perennial; Channel Grade Stabilization Structures; Clearing and Grubbing – Non-woody Vegetation; Clearing and Grubbing – Trees & Shrubs; Cofferdams; Concrete Pavement Repair; Culvert New, Replacement, Extension, Repair – Ephemeral; Culvert New, Replacement,*

Extension, Repair – Perennial; De-watering; Drilled Shafts; Erosion Control – Barriers; Erosion Control – Erosion Checks; Erosion Control – Inlet/Outlet Protection; Erosion Control – Mulching; Erosion Control – Rolled Erosion Control; Erosion Control – Slope Interruption; Erosion Control – Vegetation; Grading Outside the Hinge Point; Guardrail Repair, Replacement, or Installation with Soil Disturbance; Lighting, Traffic and Pedestrian Signals, Dynamic Message Signs w/ soil disturbance; Nighttime work with Lights; Pavement Removal; Piers; Pile Driving – Impact; Pile Driving – Vibratory; Pre-watering; Removal of Structures and Obstructions; Retaining Walls (Not in Water/Wetlands); Signs with Soil Disturbance; Stream Channel Impact, Ephemeral; Stream Channel Impact, Perennial; Temporary Crossing, Causeway, Work Platform; and Underground Utility Conduit Installation.

Many of the activities identified as “**May Affect, Not Likely to Adversely Affect**”, required the implementation of conservation conditions avoid impacting nesting piping plover (PP-1, 2, and 3). PP-1 and PP-2 were originally intended to avoid impacts to nesting habitat and piping plover nesting behaviors by surveying for nesting birds before project activities occur. Since no suitable nesting habitat is available within the action area, surveys are not necessary. Similarly, conservation condition PP-3, where river transport and barge placement would occur outside of the nesting season, would not be necessary. Because the beaches and shorelines in the Action Area provide foraging habitat rather than nesting habitat, implementation of PP-1, 2, and 3 are not applicable to the project. Piping Plovers are mobile and would avoid nearby foraging areas near construction disturbances. Therefore, the original Matrix determination of “**May Affect, Not Likely to Adversely Affect**” still stands for the aforementioned activities.

Matrix Identified “May Effect” Activities

The Matrix of Effects Table identified that the activity *Bank Stabilization* “**May Affect**” the Piping Plover. *Bank Stabilization* involves grading, soil compaction, and placement of riprap and underlying filter fabric above, at, and below the OHWM that may affect this species due to habitat modifications, flow modifications, direct takings, or by increasing sedimentation. Riprap will be installed at and below the OHWM along the bank and in other upland areas to armor the new structures against scour during flood events.

Bank Stabilization can modify suitable nesting or foraging habitat. Although there is no nesting habitat within the action area, foraging habitat may be modified by armoring riverbanks and adjacent shorelines. Installation activities can temporarily increase turbidity and sedimentation, potentially affecting prey availability in adjacent shallow-water areas. Riprap placement may also alter near-bank flow patterns due to hard points, which could influence the formation and maintenance of small sandy beach areas over time. Due to this, foraging habitat availability may be impacted. As noted previously, the riprap activities will primarily replace the existing bank stabilization, and significant changes in the current environmental baseline is not anticipated. Furthermore, piping plovers are highly mobile and would be able to avoid the foraging areas near project activities. Although *Bank Stabilization* activities adjacent to foraging habitats could temporarily disturb piping

plovers using nearby shorelines and cause short-term displacement from those areas, direct takings are not anticipated due to their mobility. Therefore, the activity *Bank Stabilization* “**May Affect, Not Likely to Adversely Affect**” piping plover or its habitat.

Activities not covered under the Matrix

The activity *Blasting (Explosives)* is not an included activity in the Matrix of Effects Table and therefore requires further evaluation. *Blasting (Explosives)* may be required for the removal of the existing Decatur bridge structure S051 03644. The blasting activity would result in similar sound levels (FHWA 2006, FHWA 2018) as pile driving. Because no suitable nesting habitat occurs in the Action Area, nesting piping plovers or nesting success will not be impacted. The beaches near the bridge only provide foraging habitat for this species. The birds will likely avoid foraging areas close to the bridge because of construction disturbances. Because piping plovers are mobile and likely to keep their distance from the noise and activities of construction and general movement of workers, the project activity *Blasting (Explosives)* “**May Affect, Not Likely to Adversely Affect**” the piping plover and its habitat.

Indirect Effects

The replacement of the existing bridge and associated work will likely result in reducing pooling north of the highway and increasing pooling south of the highway after a future flood event. Some currently pooled areas (waterbodies) that provide potential foraging/roosting habitat for the piping plover may be impacted negatively through sedimentation or scouring. However, there is potential for new or expanded pools south of the highway that could offer additional habitat. Additionally, the new bridge will be longer and may enhance the spanning of the floodplain, subsequently facilitating improved sandbar formation, movement, and habitat availability. The level of change in habitat suitability for foraging/roosting piping plovers is anticipated to remain similar to the current environmental conditions in the area.

Determination

Therefore, due to the high mobility of piping plovers, that only foraging habitat is present, and the implementation of conservation conditions, the project is determined to “**May Affect, Not Likely to Adversely Affect**” the piping plover or its habitat.

Rufa Red Knot (*Calidris canutus rufa*)

Life History Information

The Rufa Red Knot is a medium-sized shorebird characterized by a stout body and relatively short legs. During breeding, the birds display a distinctive reddish-brown plumage on their face, breast, and belly, which contrasts with their grayish back. In non-breeding plumage, they transition to a more uniform gray (Baker et al., 2004).

The *rufa* subspecies, one of three subspecies occurring in North America, has one of the longest migration distances known, travelling between its breeding grounds in the central Canadian Arctic to wintering areas that are primarily in South America (USFWS, 2011). The Rufa Red Knot breeds in the Canadian Arctic on islands such as Victoria and Prince of Wales and migrates to the southern tip of South America for wintering. Delaware Bay is a critical stopover site where they refuel on horseshoe crab eggs during their long migration (Niles et al., 2008). Breeding typically commences in late June. The red knot lays three to four eggs in a scrape on the ground, which both parents incubate. Eggs hatch after about 22 days, and chicks are precocial but still require parental protection (Atkinson et al., 2007). Chicks fledge approximately 18–20 days post-hatching (Piersma, 2007).

The Rufa Red Knot undertakes one of the longest migrations of any bird species, a journey that can exceed 9,000 miles from breeding to wintering grounds and back. During migration, especially in Delaware Bay, the availability of horseshoe crab eggs is crucial. The birds time their migration to coincide with the spawning of horseshoe crabs to maximize food availability (Tsipoura et al., 2016).

The species is classified as federally threatened, primarily due to habitat loss and reduced food availability at key stopover points. The overharvesting of horseshoe crabs at Delaware Bay has significantly impacted the Rufa Red Knot's ability to gain sufficient weight for the migration and breeding seasons (McGowan et al., 2011).

While Nebraska and Iowa are not primary areas in the life cycle of the Rufa Red Knot, they occasionally serve as transit or stopover sites during the species' long migratory journey. The Missouri River traverses the Central Flyway, a major north-south flyway for migratory birds in America. These stopovers, though not as heavily documented as those in areas like Delaware Bay, are critical during the strenuous migration period. Observations and banding efforts have provided insights into the use of such inland areas by various shorebird species, including the Rufa Red Knot (Jorgensen, 2012).

Survey History

NDOT and Iowa DOT have not conducted any surveys for the Rufa Red Knot on this project. The Nebraska Natural Heritage Database does not show any records for the species within 5 miles of the project alignment, and no Nebraska records have been documented within the last 30 years.

Habitat Evaluation and Suitability

As determined from field and desktop analyses, the project Action Area includes vegetated and unvegetated sandy beaches along the Missouri River, both north and south of the current bridge. Several unnamed waterbodies also occur in the Action Area. These beaches and shorelines of the waterbodies could provide foraging habitat to support migratory Rufa Red Knots. At the bridge location, however, the Missouri River is frequently disturbed by human activities such as boat traffic and pedestrian occupation. Nevertheless, potentially

suitable foraging/roosting habitat is available for the Rufa Red Knot in the project Action Area.

Analysis and Determination of Effects

The Matrix of Effects Table identified the following 44 activities as **“May Affect, Not Likely to Adversely Affect”** for the Rufa Red Knot without the implementation of conservation conditions: *Bank Stabilization; Barge Staging; Bridge Deck Replacement; Bridge Painting; Bridge Substructure New, Replacement, or Repair – Perennial; Bridge Superstructure New, Replacement, or Repair – Ephemeral; Bridge Superstructure New, Replacement, or Repair – Perennial; Channel Grade Stabilization Structures; Clearing and Grubbing – Non-woody Vegetation; Clearing and Grubbing – Trees & Shrubs; Cofferdams; Concrete Pavement Repair; Crack Sealing and Joint Sealing; Culvert New, Replacement, Extension, Repair – Ephemeral; Culvert New, Replacement, Extension, Repair – Perennial; Curb & Gutter; De-watering; Drilled Shafts; Earth Shoulder Construction; Erosion Control – Barriers; Erosion Control – Erosion Checks; Erosion Control – Inlet/Outlet Protection; Erosion Control – Mulching; Erosion Control – Rolled Erosion Control; Erosion Control – Slope Interruption; Erosion Control – Vegetation; Grading Within the Hinge Point; Grading Outside the Hinge Point; Guardrail Repair, Replacement, or Installation with Soil Disturbance; Lighting, Traffic and Pedestrian Signals, Dynamic Message Signs w/ soil disturbance; Nighttime work with Lights; Pavement Removal; Piers; Pile Driving – Impact; Pile Driving – Vibratory; Pre-watering; Removal of Structures and Obstructions; Retaining Walls (Not in Water/Wetlands); Sidewalks and Bikeways; Signs with Soil Disturbance; Stream Impacts, Ephemeral; Stream Impacts, Perennial; Temporary Crossing, Causeway, Work Platform; and Underground Utility Conduit Installation.*

Activities not covered under the Matrix

This project includes the activity *Blasting (Explosives)*, which is not included or defined within the Matrix, and therefore, is being evaluated in this IPLE. This activity may occur during the Rufa Red Knot migratory seasons, creating noise that could impact the species by disturbing roosting or foraging behaviors and suitable habitat. However, since the Rufa Red Knot is unlikely to be within the Action Area due to its ephemeral nature, *Blasting (Explosives)* impacts would be considered insignificant.

Indirect Effects

Because the Rufa Red Knot is unlikely to be within the Action Area, this project is not anticipated to result in any indirect effects on this species.

Determination

Due to the highly ephemeral nature of the Rufa Red Knot in Nebraska and Iowa, this project **“May Affect, Not Likely to Adversely Affect”** the Rufa Red Knot or its habitat.

Suckley's Cuckoo Bumble Bee (*Bombus suckleyi*)

Life History

Suckley's cuckoo bumble bee is an obligate social parasite of other bumble bee species and is dependent on healthy host populations (Williams et al., 2014; Hatfield et al., 2018). Unlike typical bumble bees, Suckley's cuckoo bumble bee queens do not establish their own nests. Instead, a queen invades a host colony, overthrows or subdues the host queen, and uses the colony's workers to rear her own offspring (Fisher, 1984).

The species has been historically widespread across western and central North America, ranging from Alaska and Canada southward through the western U.S. into parts of the Great Plains (Colla et al., 2012; Williams et al., 2014). However, Suckley's cuckoo bumble bee populations have undergone significant declines throughout their range, closely tracking declines of their primary host species (Hatfield et al., 2018). In Nebraska, the species is considered extremely rare, with only a few historical records, including observations from Dawes, Sioux, and Lancaster Counties (Bumble Bee Atlas, 2022).

Adult Suckley's cuckoo bumble bees are typically active during the mid- to late-summer months, corresponding to the timing of established host colonies (Williams et al., 2014). Adults forage on a variety of flowering plants for nectar, although they are not responsible for pollen collection for brood provisioning (Fisher, 1984). Preferred habitats are varied but generally include grasslands, meadows, and other open areas where host species are present (Colla et al., 2012).

Reproductive females (new queens) emerge in the fall, mate, and overwinter in sheltered locations in the soil or under leaf litter (Williams et al., 2014). Survival through the winter and successful location of a suitable host colony in the spring are critical for population persistence. Because the species is entirely reliant on the presence of healthy host colonies, factors such as habitat loss, pesticide exposure, climate change, and pathogen spillover are significant threats (Cameron and Sadd, 2020; Hatfield et al., 2018).

Surveys conducted in Nebraska since the early 2000s, including large citizen science efforts such as the Nebraska Bumble Bee Atlas, have failed to detect Suckley's cuckoo bumble bee despite targeted efforts (Bumble Bee Atlas, 2022), suggesting that the species may now be extirpated from the state.

Given its specialized life history, Suckley's cuckoo bumble bee is particularly vulnerable to host population declines and habitat fragmentation. Conservation efforts for Suckley's cuckoo bumble bee are intrinsically tied to the recovery and conservation of its host species, as well as the maintenance of diverse and abundant native flowering plant communities (Hatfield et al., 2018).

Survey History

NDOT and Iowa DOT have not completed any surveys for Suckley's cuckoo bumble bee within the project Action Area. The species has been only identified three times in the state of Nebraska—in Dawes, Sioux, and Lancaster Counties and has not been detected in the state since the early 2000s (Xerces Society for Invertebrate Conservation, 2022).

Habitat Evaluation

Suckley's bumble bee utilizes a variety of floral resources for foraging and relies on healthy bumble bee colonies to raise its young. The project Action Area contains both floral resources and locations that could contain bumble bee colonies. Therefore, there is suitable habitat for Suckley's bumble bee within the action area.

Analysis and Determination of Effects

Project activities could remove floral resources and/or impact bumble bee colonies that could be utilized by Suckley's cuckoo bumble bee. However, the species has been rarely documented in Nebraska and has never been detected in northeastern Nebraska. Therefore, Suckley's cuckoo bumble bee is extremely unlikely to occur in the project Action Area during construction, and, thus, project impacts would be considered discountable or insignificant.

Determination

Therefore, due to the presence of potentially suitable habitat within the Action Area, but the extremely rare detection of the Suckley's cuckoo bumble bee in Nebraska and Iowa, the Project **"May Affect, Not Likely to Adversely Affect"** the Suckley's cuckoo bumble bee or its habitat.

Western Regal Fritillary (*Argynnis idalia occidentalis*)

Western Regal Fritillary Life History

The western regal fritillary is a subspecies of the regal fritillary butterfly native to the central and northern Great Plains (USFWS, 2024b). Historically, the western regal fritillary ranged from eastern Colorado and western Nebraska northward through the Dakotas into southern Manitoba and Saskatchewan (Selby, 2007). Today, the subspecies is largely restricted to fragmented remnant prairie habitats in Nebraska, South Dakota, North Dakota, and Kansas, with significant population declines documented across much of its historical range (USFWS, 2024b). The USFWS proposed the western regal fritillary for listing as a threatened species under the Endangered Species Act on March 19, 2024, citing habitat loss, degradation, fragmentation, and climate change as major threats to its continued existence (USFWS, 2024b).

The western regal fritillary is a large butterfly, with a wingspan ranging from approximately 73 to 102 millimeters (Scott, 1986). Adults exhibit bright orange forewings with black markings and dark hindwings with a series of prominent white spots on the ventral surface. Sexual dimorphism is present, with females generally larger and darker than males (Opler and Krizek, 1984). Morphological differences between the western regal fritillary and other *idalia* subspecies are minimal, and subspecies distinctions are based primarily on geographic distribution and genetic characteristics (USFWS, 2024b).

This subspecies is dependent on intact native prairie ecosystems, including tallgrass prairie dominated by species such as big bluestem (*Andropogon gerardii*) and Indian grass (*Sorghastrum nutans*), and mixed-grass prairie systems with a blend of mid-height grasses (Vogel et al., 2010). Important habitat elements include the presence of native violets (*Viola* spp.), which are the obligate larval host plants, and a diverse assemblage of native forbs providing nectar sources for adults (Shepherd and Debinski, 2005). Suitable habitats are characterized by open, sunny conditions with limited woody encroachment, and are typically maintained through natural disturbance processes such as fire and moderate grazing (Swengel, 1998; Vogel et al., 2010). Habitat quality declines when prairie remnants are subjected to fire suppression, intensive grazing, invasive plant encroachment, or chemical exposure (Swengel and Swengel, 2015).

The western regal fritillary is univoltine, completing one generation per year (Scott, 1986). Adults typically emerge between late May and early July, with peak flight activity occurring in June (Swengel and Swengel, 2015). Males emerge earlier and search for mates soon after emergence. After mating, females undergo a period of reproductive diapause before laying eggs in late summer (August–September) (Debinski, 1999). Upon hatching, larvae overwinter as first instars without feeding, resuming activity the following spring when they feed exclusively on violet leaves (Shepherd and Debinski, 2005). Pupation occurs in late spring to early summer, after which new adults emerge to complete the annual cycle (Scott, 1986).

Primary threats to the western regal fritillary include habitat loss and degradation, primarily from agricultural conversion, energy development, infrastructure expansion, and urbanization (USFWS, 2024b). Degradation of prairie remnants through suppression of natural fire regimes, overgrazing, spread of invasive species such as smooth brome (*Bromus inermis*) and Kentucky bluegrass (*Poa pratensis*), and pesticide application also reduces habitat suitability (Vogel et al., 2010; Swengel and Swengel, 2015). Small, isolated populations are particularly vulnerable to extirpation due to stochastic events, genetic bottlenecks, and demographic instability (Selby, 2007). Additionally, climate change is expected to exacerbate habitat fragmentation and alter key ecological processes necessary for the persistence of suitable habitat and host plant populations (USFWS, 2024b).

Because the subspecies relies heavily on large, contiguous prairie tracts with abundant violets and nectar resources, conservation of the Western Regal Fritillary focuses on preserving and managing native prairie habitats (Selby 2007; USFWS 2024b). Regulatory reviews of proposed projects occurring within or near suitable prairie habitats must consider potential impacts to host plants, adult nectar resources, and habitat structure.

Conservation measures generally emphasize avoidance of prairie remnants, timing of habitat management to minimize direct mortality, reduction of chemical exposure, and use of prescribed fire and grazing practices that support a heterogeneous, forb-rich prairie landscape (USFWS, 2024b).

Species Survey

NDOT and Iowa DOT have not completed a survey for western regal fritillary on this project. There are no Nebraska Natural Heritage Database records of the species occurring within 5 miles of the project.

Habitat Evaluation

The western regal fritillary is dependent upon violet species (*Viola* spp.) as larvae, and consequently, the species is strongly tied to non-degraded prairies and wetlands. No remnant prairies occur or would provide suitable habitat for this butterfly in the Action Area.

Analysis and Determination of Effects

The Action Area lacks the habitat characteristics required for the western regal fritillary. Therefore, project activities are unlikely to occur where the species is present. In addition, areas of soil disturbance along the project alignment can be seeded with native vegetation. There is potential that the reseeding could include floral resources that could be utilized by the western regal fritillary and provide a benefit to the species. Considering the present lack of suitable habitat for the western regal fritillary within areas where soil disturbance is occurring and with the re-seeding of the project locations with native vegetation, the project's impacts would be considered to have no effect on the species.

Determination

Due to the lack of suitable habitat within the limits of action area NDOT and Iowa DOT have determined that this project will have “**No Effect**” on the western regal fritillary or its habitat.

3. CONSERVATION MEASURES

Pallid Sturgeon/ Lake Sturgeon/ Sturgeon Chub:

- PS/LS/SC-1** No vibratory or impact pile driving from March 1 through July 31 within the channel. (*Contractor*)
- PS/LS/SC-2** Any detention basin outlets will be designed such that it is stabilized to prevent streambank erosion and will not otherwise impact stream channel/bank. (*Design, Contractor*)
- PS/LS/SC-3** The Contractor will dispose of drill cuttings in areas or a manner which will not adversely affect state and/or federally listed species and/or designated critical habitat. (*Contractor*)
- PS/LS/SC-5** No discharge of water or spoil directly into the channel from March 1 through July 31. (*Contractor*)
- PS/LS/SC-6** No flow modifications or disturbance in the channel from March 1 through July 31. Work is allowed within a cofferdam or above the waterline if the work is conducted from the temporary work platform or another location not directly in the channel (i.e., the riverbank or barges). Vibratory or impact pile driving from March 1 to July 31 is **NOT** permitted within or outside of a cofferdam. Temporary bridges or causeways can be constructed between August 1 and March 1, provided they are built according to the terms and conditions of the associated 404 permit. Barges may be secured with spud piles and relocated year-round. (*Contractor*)
- PS/LS/SC-7** Any upland soil disturbances will be designed to avoid or minimize sedimentation. (*Design, Contractor*)
- PS/LS/SC-A** The proposal for the temporary structure, if not already provided, shall be submitted to the USFWS and NGPC at least 30 days prior to construction. (*Contractor, Environmental*)
- PS/LS/SC-B** During all phases of the bridge removal that do not involve dropping the bridge into the channel, such as the removal of the bridge deck and rails, all debris will be captured and/or contained. During phases of bridge removal that include dropping the bridge into the channel, all materials will be removed from the channel as promptly as feasible. The dropping and removal of the bridge from the channel will not occur between March 1 and July 31. (*Contractor*)
- PS/LS/SC-C** Bridge demolition activities involving explosives will be avoided between March 1 through July 31.
- PS/LS/SC-D** Prior to use at the construction site, barges and any equipment that will be used in the water must be de-contaminated of invasive aquatic species according to protocol. (*Contractor*)

Monarch Butterfly:

MB-A To avoid impacts on monarch caterpillars during construction, contractors shall complete all initial vegetation disturbance before May 1 or after October 1. This initial disturbance can be a mow out of the entire area and does not require a full clearing and grubbing. Vegetation shall be maintained at below 6" height or less starting May 1 to October 1. If construction or Contractor activities within areas of suitable habitat are complete before October 1st, the area no longer needs to be mowed. This timing restriction ensures that vegetation removal does not occur during the period when monarch caterpillars are present on milkweed plants. (Contractor)

Piping Plover:

PP-4 Herbaceous species used for re-seeding within ¼ mile of the following locations: the west (Nebraska) and east (Iowa) banks of the Missouri River and several unnamed waterbodies will be native grass or forb species. Native shrub or woody species used in restoration should reach no more than 4 feet in height at maturity. These unnamed waterbodies are located at Mile Markers 0+30 (north and south) and 0+ 40 to 0+60 (north and south). (*Design, NDOT Environmental*)

PP-5 If nighttime work is planned between April 15 and August 15, lighting shall be limited to a Nominal CCT of 3000 +/- 300 K, shielded and directed away from the suitable habitat at the following locations: the west (Nebraska) and east (Iowa) banks of the Missouri River and several unnamed waterbodies located at Mile Markers 0+30 (north and south) and 0+ 40 to 0+60 (north and south). (*NDOT Environmental, Contractor*)

Rufa Red Knot: No conservation measures specified

Suckley's Cuckoo Bumble Bee: No conservation measures specified

4. COORDINATION

Early outreach to regulatory and reviewing agencies was initiated during the Decatur Bridge Location and Environmental Study (Location/Environmental Study) to inform them of the potential project and obtain information with regard to their jurisdiction by law, properties they may own or manage, and design or operational criteria applicable to the design and construction of the project. Additional coordination has occurred since August 2025, when the NEPA process was initiated, and will continue throughout development of the Environmental Assessment (EA) and into final design, as needed. Because these meetings set the stage for the proposed project design and resulting impacts, the full list has been provided here. The following summarizes the agency coordination conducted to date – including the date, agencies in attendance, and discussion content. Meeting notes and presentations are included in the project file.

Pre-NEPA During the Decatur Bridge Location and Environmental Study:

- October 19, 2023 – USCG, NDOT, Iowa DOT - Project kick-off meeting to share the project description, timeline, coordination protocols, discuss consideration of bridge

- rehabilitation, bridge design parameters (horizontal clearance [existing and new location alignments], bridge vertical clearance [key elevations], river navigation [allision history, typical barge traffic, vessel collision]), anticipated removal depth for existing piers, need for navigation lighting and clearance gage requirements, construction requirements, and planned USCG industry meeting.
- November 3, 2023 – USACE, IDNR, NDOT, Iowa DOT - Project kick-off meeting to share the project description, timeline. Crossing concept study being conducted pre-NEPA, review of meeting with USCG on 10/19/2024, review of Missouri River navigation season, existing river structures, upcoming levee repairs, Section 408 triggers, hydrology and hydraulics study including scour and bathymetric survey, wetlands and agency management under the Missouri River Recovery Project (MRRP), and USACE real estate review process.
 - November 17, 2023 – USFWS, NGPC, NDOT, and Iowa DOT - Project kick-off meeting to share the project description, timeline, and scope. Reviewed the extent of the Initial Survey Area, public lands within the Initial Survey Area, protected species, and results of wetland field delineation and discussion of possible mitigation.
 - January 4, 2024 – USACE, NDOT – Meeting focused on river hydraulics - interpolation of flow data, stage-flow relationships at Decatur, 2% flow line, pier removal elevations to be used in hydraulic modeling for the project.
 - February 9, 2024 – IDNR, DWEE, NDOT - Floodplain Permitting - Project kick-off meeting to share the project description, timeline, and data collected to date (floodplain, property boundaries), USACE Missouri River Flow Frequency Study (2023), USACE HEC-RAS model, bridge history/scour issues, and flood map updates. Discussed permits anticipated for each state and potential need for a Conditional Letter of Map Revision (CLOMR).
 - May 9, 2024 – USCG, FHWA, NDOT, Iowa DOT – Meeting to discuss anticipated project schedule including NEPA process and permits, upcoming meeting with USACE (5/17/2024), water surface elevations, existing bridge clearances, proposed vertical clearance for new bridge, required horizontal clearance, new pier placement, conceptual crossing alignments under consideration, vessel traffic, construction considerations, and planned USCG industry meeting in 2025.
 - May 17, 2024 – USACE, FHWA, NDOT, Iowa DOT - Project update meeting to present initial purpose and need, alignment/alternative screening process, impacts that could trigger reviews under Section 404 and 408 and by the USACE Real Estate Division, reviewed USACE real estate process (acquisition/easements), and discussed anticipated NEPA schedule and permits.
 - September 25, 2024 - USACE, USCG, IDNR, FHWA, NDOT, Iowa DOT - Project update meeting to review anticipated NEPA schedule and unified timeline for USCG, USACE, and IDNR permitting during and after NEPA.
 - April 22, 2025 - FHWA extended invitations to the USACE (Omaha District, updated invitation to the Rock Island District on May 28, 2025) and the USCG (Heartland District, Western Rivers) to be Cooperating Agencies during the NEPA process. Each agency has jurisdiction by law with the authority to issue permits to construct the project. Both agencies also have special expertise and knowledge that is used in ongoing project development. Each agency accepted the role as a Cooperating Agency.

- May 13, 2025 – IDNR, DWEE, NDOT, Iowa DOT - Provide overview of project (description, timeline, Location/Environmental Study) and flood resiliency/risk-reduction strategies proposed as part of the project, and the anticipated need for a CLOMR.
- May 19, 2025 – NDOT, on behalf of FHWA, distributed agency scoping/early coordination packets to numerous local, state, and federal agencies (including USFWS, NGPC, and IDNR), and federally recognized tribes to obtain input on development of the EA for the Project. The comment period extended through June 13, 2025, with no agencies providing comments or feedback.
- July 29, 2025 – IDNR, NDOT, Iowa DOT – Meeting to review the two build alternatives recommended from the Location/Environmental Study, the anticipated impacts of each on the Upper Decatur Bend Wildlife Management Area (WMA), and potential mitigation requested by IDNR.

During the NEPA Process/Development of the EA:

- September 4, 2025 – FEMA, FHWA, NDOT, Iowa DOT – Provide overview of project to FEMA (description, timeline, Location/Environmental Study) and obtain information to support 1D hydraulic modeling and development of a potential CLOMR.
- December 5, 2025 – NGPC, IDNR, USACE, USFWS, NDOT, Iowa DOT – Joint coordination meeting to review the USFWS/FHWA/NDOT/NGPC Nebraska biological evaluation process, including discussion on the species to be included in the Individual Project Level Evaluation (IPLE) and data needs (pallid sturgeon research information). It was noted that all anticipated construction methods have not been finalized, but the Team is taking a worst-case scenario look at them to include any/all at this time, with some anticipated to be removed at a later date based on a Contractor's actual proposed methods.

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Project Name: Decatur Bridge
C.N. 32395; P.N. STP-51-7(109)

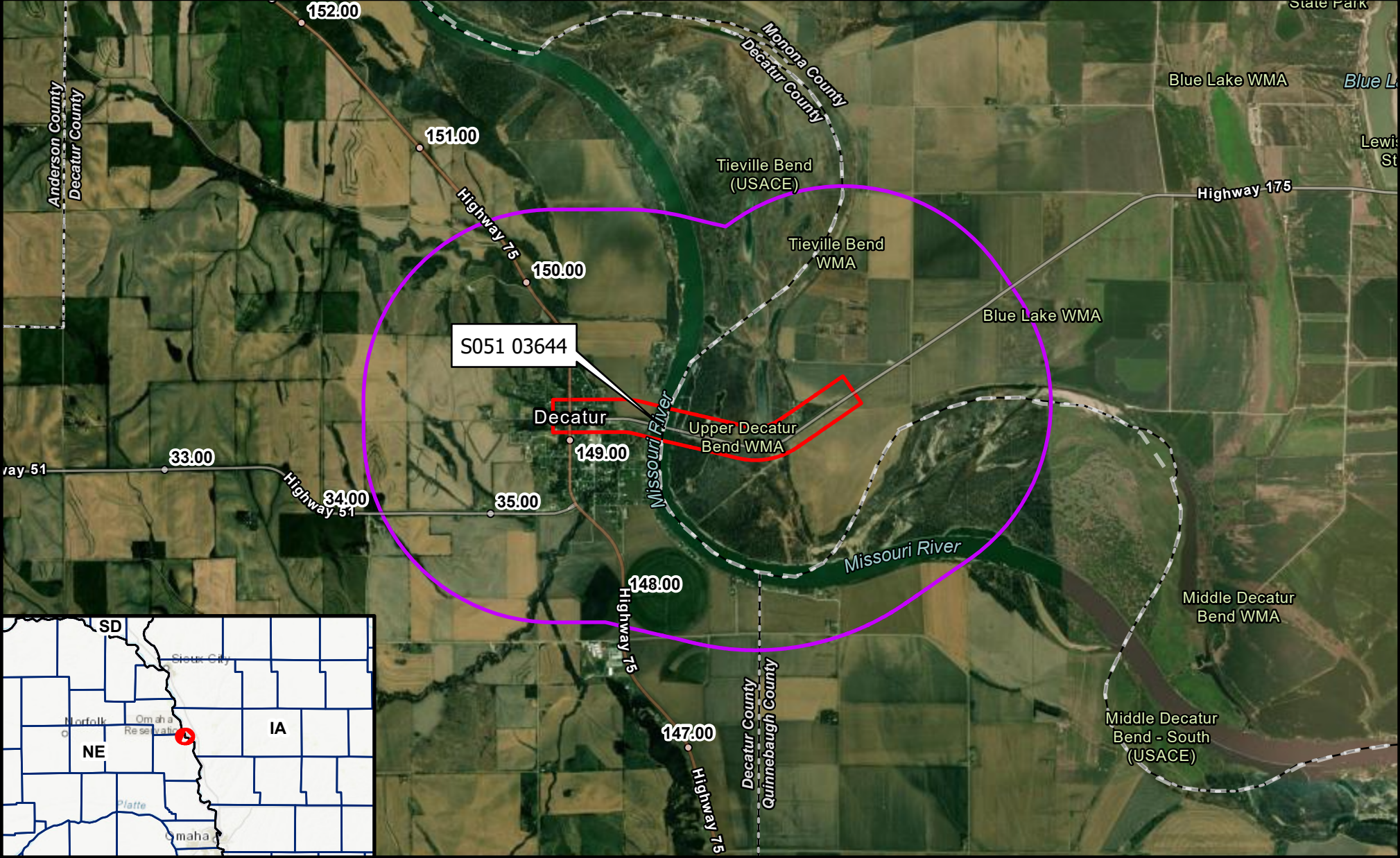
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Williams, E.H., and L.P. Brower. (2015). Microclimatic protection of monarch butterflies provided by Mexico's high elevation Oyamel fir forests: A review. In K.S. Oberhauser, K.R. Nail, and S.M. Altizer SM (Eds.), *Monarchs in a Changing World: Biology and Conservation of an Iconic Insect* (pp. 109–116). Ithaca, NY: Cornell University Press.

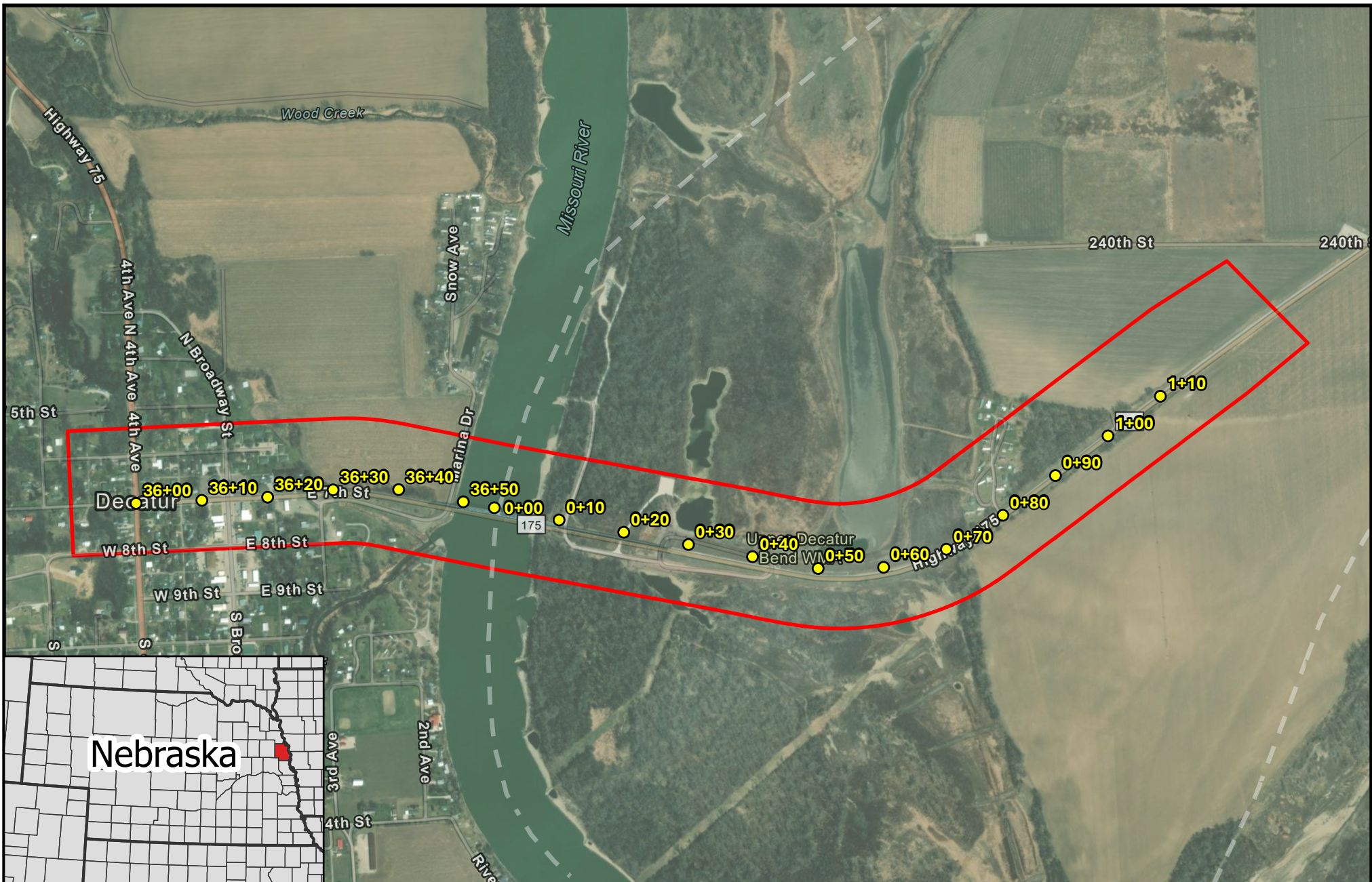
Xerces Society for Invertebrate Conservation. (2022). *Bumble Bees of Nebraska*. Retrieved January 7, 2026, from https://www.xerces.org/sites/default/files/publications/21-041_01_web-print.pdf

6. ADDITIONAL INFORMATION

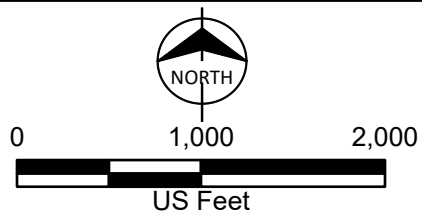
A photosheet, proposed design drawings, and additional project materials are located in the consultant project file and at the Nebraska Department of Transportation Environmental Services Office.



 Study Area Action Area County Boundary Highway Mile Markers	 NORTH  0 0.5 1 2 Miles		Aerial Map Decatur Bridge Project No. STP-51-7(109) Control No. 32395 Burt County, Nebraska
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- Initial Survey Area
- Highway Mile Markers



NEBRASKA
 Good Life. Great Journey.
 DEPARTMENT OF TRANSPORTATION

Location of Unnamed Waterbodies
 in Relation to Mile Markers
 Decatur Bridge
 Project No. STP-51-7(109)
 Control No. 32395



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Assistant Director-Ecological Services

1849 C Street Nw

Room 3345

Washington, DC 20240-0001

Phone: (202) 208-4646 Fax: (202) 208-5618



In Reply Refer To:

02/03/2026 17:21:15 UTC

Project code: 2025-0109404

Project Name: Decatur Bridge

Subject: Not Likely to Adversely Affect Concurrence verification letter for the 'Decatur Bridge' project under the December 13, 2024, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, and Tricolored Bat.

To whom it may concern:

This letter records the determination of effects to federally listed (or proposed) bat species anticipated to result from the Decatur Bridge (the Project). This determination is based upon information you entered into the assisted determination key (Dkey) associated with the above referenced Programmatic Biological Opinion/Conference Opinion (PBO/PCO) in the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system on the date listed above to verify that the Project may rely on the concurrence provided in the PBO/PCO to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (16 USC 1536), as amended.

Ensuring Accurate Determinations When Using IPaC:

The Service developed the IPaC system and this Dkey in accordance with the ESA and based on the PBO/PCO. All information submitted by the project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in the Dkey invalidates this letter. Answers to certain questions in the Dkey commit the project proponent to implementation of conservation measures that must be followed for the ESA determinations to remain valid. Carefully review this letter, your ESA requirements are NOT yet complete.

Determinations:

Based on the information you provided (Project Description shown below), you have determined that the Project is within the scope and adheres to the criteria of the PBO/PCO, including the adoption of applicable avoidance and minimization measures. Based on your IPaC submission and the PBO/PCO, the Project is consistent with the following effect determinations:

Species	Listing Status	Determination
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	NLAA

The tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can confer under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a no effect or not likely to adversely affect (NLAA) determination from the key to confirm that the determination is still accurate.

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Project does not meet the criteria for a NLAA determination under the PBO/PCO. **If the Service does not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Project under the terms of the NLAA concurrence provided in the PBO/PCO.** This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO/PCO.

If the Project is modified, or new information reveals that it may affect the Indiana bat, northern long-eared bat, or tricolored bat in a manner or to an extent not considered in the PBO/PCO, 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 assessment failed to detect Indiana bat, northern long-eared bat, or tricolored bat use or occupancy, yet bats are later detected prior to, or during construction, promptly notify the local Service Field Office within 2 working days of the discovery. In addition, please document whether incidental take occurred, and if so, the type (i.e. kill or harm) and amount (i.e. number of individuals) and submit documentation to the local Service Field Office within 5 working days from the completion of the bridge, culvert, or structure construction (use Appendix E - Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form in the [User's Guide](#)). In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service. In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service.

If the Project 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 Field Office is required for those species/designated critical habitat. If the Project 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 to contact this Service Field Office

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Pallid Sturgeon *Scaphirhynchus albus* Endangered
- Piping Plover *Charadrius melodus* Threatened
- Suckley's Cuckoo Bumble Bee *Bombus suckleyi* Proposed Endangered
- Western Regal Fritillary *Argynnis idalia occidentalis* Proposed Threatened

DRAFT

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

Decatur Bridge

DESCRIPTION

The existing Decatur Bridge (S051 03644) over the Missouri River will be removed and replaced following construction of a new bridge on an alignment north of the existing crossing. The old bridge will be dropped into the channel, broken down further, and removed from the channel in sections. The width of the new bridge will go from a 22.5 ft clear roadway to a 40 ft clear roadway with two 12 ft travel lanes and 8 ft shoulders. Work will be required in the waterway, anticipating the use of coffer dams to install the new river piers and to remove existing piers.

DRAFT

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.00759835,-96.23658410482287,14z>



DRAFT

DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the Indiana bat, northern long-eared bat or tricolored 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 concurrence provided in the Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024.

QUALIFICATION INTERVIEW

1. Which Federal Agency is the lead federal agency the action?

A) Federal Highway Administration (FHWA)

2. Does the Action Area intersect the species list area of the Northern long-eared bat?

Automatically answered

Yes

3. [Semantic] Is any portion of the action area within a 0.5 mile radius of an entrance/opening to any known NLEB or TCB hibernacula?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact the Field Office listed in the letterhead of this letter.

Automatically answered

No

4. Does your project's activities include raising the road profile above the tree canopy in documented habitat for the Indiana bat, NLEB, or TCB?

Note: For the definition of documented habitat, refer to Appendix A: <https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat>

No

5. Is your project located within a karst area?

No

6. Will the project include bridge, culvert, or structure removal, replacement, and/or alteration activities?

Note: For definitions of bridge, culvert, and structure, refer to Appendix A: <https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat>.

Yes

7. Do your project's activities involve tree removal/trimming, temporary lighting, new/additional permanent lighting, ground disturbance, percussives that involves noise/vibration above existing background levels, vibrations, or slash pile burning?

Yes

8. Is there suitable summer habitat for the Indiana bat, NLEB, or TCB within the project action area?

Note: See the Service's summer survey guidance for current definitions of suitable habitat [<https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html>].

Yes

9. Have P/A surveys for the Indiana bat, NLEB, or TCB been conducted within the suitable summer habitat located within your project action area? This refers to mist-netting or acoustic surveys, not bridge assessments.

Note: See the Service's survey guidance <https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html>

Yes

SUBMITTED DOCUMENTS

- 31395 Decatur Bridge STP-51-7109 Acoustic Bat Survey Report_11042024_Packaged.pdf <https://ipac.ecosphere.fws.gov/project/XQDSO73OFRFEZH54P2QGUKBI/projectDocuments/163392504>

10. Did the P/A surveys detect Indiana bats, NLEBs, or TCBs?

Note: If Indiana bats, NLEBs, or TCBs are detected, the action area is considered **documented habitat**.

No

11. Did the local Service Field Office verify that this P/A survey can be used to determine Indiana bat, NLEB, and TCB are **not likely to be present** within the suitable summer habitat located within your project area?

Yes

12. Will the project include **bridge** removal, replacement, and/or alteration activities?

Yes

13. Is there any suitable habitat for the Indiana bat or NLEB within 1,000 feet of the **bridge** (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)?

Yes

14. Has a Bridge Bat Assessment been conducted **within the last 24 months** to determine if the bridge is being used by the Indiana bat, NLEB, or TCB? If yes, upload assessment.

Note: Refer to the Service's current survey guidance for acceptable assessment practices and validity timeframe of bridge/culvert and structure bat assessments: <https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

SUBMITTED DOCUMENTS

- CN32395_DecaturBridge_bridge-culvert-bat-assessment-form-2022-bridge.pdf <https://ipac.ecosphere.fws.gov/project/XQDSO73OFRFEZH54P2QGUKBI/projectDocuments/170716678>

15. Please select one of the following results of the Bridge Bat Assessment:
*c) Indicates the **absence** of Indiana bats, NLEBs, or TCBs roosting in/under the bridge (no bats, guano, etc.)?*
16. Does the project include **culvert** removal, replacement, and/or alteration activities?
Yes
17. Is there any suitable habitat for the Indiana bat or NLEB within 1,000 feet of the **culvert** (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)?
Yes
18. Does the culvert equal or exceed 23 feet (7.0 meters) in length?
Yes
19. Are the interior dimensions of the culvert less than 4.5 ft. in diameter/height?
No
20. Has a Culvert Bat Assessment been conducted within the last 24 months to determine if the culvert is being used by the Indiana bat, NLEB, or TCB? If yes, upload assessment.

Note: Refer to the Service's current survey guidance for acceptable assessment practices and validity timeframe of bridge/culvert and structure bat assessments: <https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

SUBMITTED DOCUMENTS

- CN32395_DecaturBridge_bridge-culvert-bat-assessment-form-2022_culvert.pdf
<https://ipac.ecosphere.fws.gov/project/XQDSO73OFRFEZHSD54P2QGUKBI/projectDocuments/170716679>

21. Please select one of the following results of the Culvert Bat Assessment:
c) Did not detect any signs of Indiana bats, NLEBs, or TCBs roosting in/under the culvert (bats, guano, etc.)
22. Does the project include **structure** removal, replacement, and/or alteration activities?
No
23. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?
Automatically answered
No
24. Does the Action Area intersect the species list area of the northern long-eared bat (NLEB)?
Automatically answered
Yes

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determinations for all other species included on the FWS IPaC generated species list?
No

2. Have you made a May Affect determination for any other species on the FWS IPaC generated list?

Yes

3. Please enter the date of the bridge assessment.

8/15/2025

4. Please enter the date of the culvert assessment.

9/11/2025

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

GAMM1

Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs.

DRAFT

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING IBAT, NLEB, OR TCB

This key was last updated in IPaC on January 23, 2026. 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) and may affect the federally listed endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and/or federally proposed endangered tricolored bat (*Perimyotis subflavus*).

This decision key should only be used to verify project applicability with the Service's Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. The programmatic consultation limited transportation activities that may affect the covered bat species and addresses situations that are both likely and not likely to adversely affect the covered bat species. This decision key will assist in identifying the effect of a specific project/activity and the applicability of the programmatic consultation. The programmatic consultation is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic consultation, or that may affect ESA-listed species other than the Indiana bat, northern long-eared bat, or tricolored bat, or their designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Nebraska Department of Transportation

Name: Erika Hinz

Address: 1500 Nebraska Pkwy

City: Lincoln

State: NE

Zip: 68502

Email: erika.hinz@nebraska.gov

Phone: 4024793546

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

DRAFT

From: [Hauge, Todd A](#)
To: [Solomon, Nilah](#)
Cc: [Hinz, Erika](#); [Kyriss, Antoinette](#); [Hart, Raymond](#); [Steve, Olivia M](#)
Subject: RE: [EXTERNAL] Biological Assessment Review Request: Decatur Bridge; STP-51-7(109); 32395
Date: Friday, February 20, 2026 7:42:42 AM
Attachments: [image001.png](#)
[image002.png](#)

You don't often get email from todd.hauge@bia.gov. [Learn why this is important](#)

Nilah,

I have reviewed the Biological Assessment for the Decatur Bridge and believe the outlined remediations for species (**Lake Sturgeon, Pallid Sturgeon, Monarch Butterfly, Northern Long-eared Bat, Piping Plover, Rufa Red Knot, Sturgeon Chub, and Suckley's Cuckoo Bumble Bee**) with the "May affect, not likely to adversely affect" determination are inline with current regulations for habitat and species protection. If at some point during the project any of the species/habitats are detected, the remediations outlined may need to be revisited/revised to ensure protection of species/habitat encountered. This was stated in the Assessment and would expect the contractor to abide by these guidelines.

Just a note to cover my backside, I am writing this as engineer and not a qualified biologist! I have had experience with this process through my own projects here in the Region and have compared them side by side and everything looks well thought out and thoroughly put together. I would have no issues with proceeding with this project and assessment that Ms. Hinz has put together.

I hope this is helpful, let me know if there is anything else I can assist with!

Thank you,

Todd

Todd Hauge
Safety of Dams Engineer
Bureau of Indian Affairs - Great Plains Region
Phone: (605) 226.7757 | Mobile: (605) 216.5942
Email: Todd.Hauge@bia.gov
115 4th Avenue Southeast, Suite 400
Aberdeen, South Dakota 57401



From: Solomon, Nilah <Nilah.Solomon@bia.gov>
Sent: Thursday, February 19, 2026 8:56 AM
To: Hauge, Todd A <Todd.Hauge@bia.gov>
Cc: Hinz, Erika <erika.hinz@nebraska.gov>; Kyriss, Antoinette <Antoinette.Kyriss@bia.gov>; Hart, Raymond <Raymond.Hart@bia.gov>; Steve, Olivia M <olivia.steve@bia.gov>
Subject: Re: [EXTERNAL] Biological Assessment Review Request: Decatur Bridge; STP-51-7(109); 32395

Thank you so much Todd!!

Nilah J. Solomon
Superintendent
Bureau of Indian Affairs - Winnebago Agency
Phone: (402) 878-2502 | Mobile (712) 202-8805
Email: nilah.solomon@bia.gov
355, BIA Rd 3, Winnebago, Nebraska 68071



From: Hauge, Todd A <Todd.Hauge@bia.gov>
Sent: Thursday, February 19, 2026 8:44 AM
To: Solomon, Nilah <Nilah.Solomon@bia.gov>
Cc: Hinz, Erika <erika.hinz@nebraska.gov>; Kyriss, Antoinette <Antoinette.Kyriss@bia.gov>; Hart, Raymond <Raymond.Hart@bia.gov>; Steve, Olivia M <olivia.steve@bia.gov>
Subject: RE: [EXTERNAL] Biological Assessment Review Request: Decatur Bridge; STP-51-7(109); 32395

Nilah,
I have started looking into it but have not completed, but so far it looks pretty good. There are a few species that are noted to have a “May affect, not likely to adversely affect” determination. I am just looking at the remediation procedures and researching each species a bit. I will get any comments to you today or right away tomorrow.

Thank you,

Todd

Todd Hauge
Safety of Dams Engineer
Bureau of Indian Affairs - Great Plains Region

Phone: (605) 226.7757 | Mobile: (605) 216.5942

Email: Todd.Hauge@bia.gov

115 4th Avenue Southeast, Suite 400

Aberdeen, South Dakota 57401



From: Solomon, Nilah <Nilah.Solomon@bia.gov>

Sent: Thursday, February 19, 2026 8:40 AM

To: Hauge, Todd A <Todd.Hauge@bia.gov>

Cc: Hinz, Erika <erika.hinz@nebraska.gov>; Kyriss, Antoinette <Antoinette.Kyriss@bia.gov>; Hart, Raymond <Raymond.Hart@bia.gov>; Steve, Olivia M <olivia.steve@bia.gov>

Subject: Fw: [EXTERNAL] Biological Assessment Review Request: Decatur Bridge; STP-51-7(109); 32395

Good morning, Todd -

Have you had a chance to review/comment on the Biological Assessment, due March 4, 2026. Erika has made an inquiry. Please respond. Thank you!

Nilah J. Solomon

Superintendent

Bureau of Indian Affairs - Winnebago Agency

Phone: (402) 878-2502 | Mobile (712) 202-8805

Email: nilah.solomon@bia.gov

355, BIA Rd 3, Winnebago, Nebraska 68071



From: Solomon, Nilah <Nilah.Solomon@bia.gov>

Sent: Tuesday, February 10, 2026 10:20 AM

To: Hauge, Todd A <Todd.Hauge@bia.gov>

Cc: Hinz, Erika <Erika.Hinz@nebraska.gov>; Kyriss, Antoinette <Antoinette.Kyriss@bia.gov>; Hart, Raymond <Raymond.Hart@bia.gov>; Steve, Olivia M <olivia.steve@bia.gov>

Subject: Re: [EXTERNAL] Biological Assessment Review Request: Decatur Bridge; STP-51-7(109); 32395

Thank you Todd, your assistance is greatly appreciated!!

Nilah J. Solomon

Superintendent

Bureau of Indian Affairs - Winnebago Agency

Phone: (402) 878-2502 | Mobile (712) 202-8805

Email: nilah.solomon@bia.gov

355, BIA Rd 3, Winnebago, Nebraska 68071



From: Hauge, Todd A <Todd.Hauge@bia.gov>

Sent: Tuesday, February 10, 2026 9:54 AM

To: Solomon, Nilah <Nilah.Solomon@bia.gov>

Cc: Hinz, Erika <erika.hinz@nebraska.gov>; Kyriss, Antoinette <Antoinette.Kyriss@bia.gov>; Hart, Raymond <Raymond.Hart@bia.gov>; Steve, Olivia M <olivia.steve@bia.gov>

Subject: RE: [EXTERNAL] Biological Assessment Review Request: Decatur Bridge; STP-51-7(109); 32395

Nilah,

Thank you for reaching out. I just wanted to send a quick message to acknowledge receipt and let you know that I will do my best to start reviewing the Biological Assessment this week but if not I will get into it next week.

Thank you,

Todd

Todd Hauge

Safety of Dams Engineer

Bureau of Indian Affairs - Great Plains Region

Phone: (605) 226.7757 | Mobile: (605) 216.5942

Email: Todd.Hauge@bia.gov

115 4th Avenue Southeast, Suite 400
Aberdeen, South Dakota 57401



From: Solomon, Nilah <Nilah.Solomon@bia.gov>
Sent: Tuesday, February 10, 2026 8:59 AM
To: Hauge, Todd A <Todd.Hauge@bia.gov>; Estey, Heath <Heath.Estey@bia.gov>
Cc: Hinz, Erika <erika.hinz@nebraska.gov>; Kyriss, Antoinette <Antoinette.Kyriss@bia.gov>
Subject: Fw: [EXTERNAL] Biological Assessment Review Request: Decatur Bridge; STP-51-7(109); 32395

Good Morning -

I received an email request on February 4, 2026, for review of the Biological Assessment (attached). The Winnebago Agency does not have an Environmental Specialist and are requesting your assistance in providing comments or concerns regarding this project. The due date for a response is **March 4, 2026**.

I appreciate your assistance. Thank you!

Nilah J. Solomon
Superintendent
Bureau of Indian Affairs - Winnebago Agency
Phone: (402) 878-2502 | Mobile (712) 202-8805
Email: nilah.solomon@bia.gov
355, BIA Rd 3, Winnebago, Nebraska 68071



From: Hinz, Erika <Erika.Hinz@nebraska.gov>

Sent: Wednesday, February 4, 2026 10:05 AM

To: Solomon, Nilah <Nilah.Solomon@bia.gov>; tgrant2@theomahatribe.com
<tgrant2@theomahatribe.com>

Cc: Luther, Justin <justin.luther@dot.gov>; Pitts, Luke <luke.pitts@dot.gov>; Ondracek, Anna
<Anna.Ondracek@nebraska.gov>; Trenne, Ben <Ben.Trenne@nebraska.gov>;
brock.struecker@iowadot.us <brock.struecker@iowadot.us>; Duncan, Chelsea
<chelsea.duncan@iowadot.us>

Subject: [EXTERNAL] Biological Assessment Review Request: Decatur Bridge; STP-51-7(109); 32395

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good morning, Nilah and Tim,

My name is Erika Hinz, and I am a threatened and endangered species specialist with the Nebraska Department of Transportation (NDOT). NDOT, in partnership with Iowa DOT, has a federally-funded project with an action area that extends into tribal lands of the Omaha Tribe. Due to this, NDOT, on behalf of the Federal Highway Administration (FHWA), is respectfully requesting your review of the attached Draft Biological Assessment (BA) for any comments or concerns you have with this project as it relates to federally and state listed threatened and endangered species or other species of concern. The BA was developed utilizing the Programmatic Agreement among the FHWA, USFWS, NDOT, and NGPC for the Determination of Effects to State and Federally Listed Species from the Federal-Aid Highway Program.

Through the Draft BA, it is anticipated that the project, Decatur Bridge (CN 32395), **may affect, but is not likely to adversely affect Lake Sturgeon, Pallid Sturgeon, Monarch Butterfly, Northern Long-eared Bat, Piping Plover, Rufa Red Knot, Sturgeon Chub, and Suckley's Cuckoo Bumble Bee. The project would have no effect on all other state or federally-listed species or their designated habitat.** The FHWA is the lead agency on this project.

This project is located on Nebraska Highway 51 (N-51) / Iowa Highway 175 (IA-175) within Burt County, Nebraska, and Monona County, Iowa, at the bridge over the Missouri River (Structure Number S051 03644), mile marker (MM) 36.63. There is a project map included within the Draft BA. The improvements of this project consist of the

replacement of structure S051 03644, pavement reconstruction, storm sewer and culvert work, and guardrail replacement. Grading beyond the hinge point will be required for this project. This project will be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Temporary crossovers may be utilized to accommodate phasing requirements. 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.

NDOT respectfully requests your review of the attached Draft BA. NDOT would appreciate your response on the effects determination for this project and invites you to ask questions or make comments regarding this determination. We are requesting any questions or concerns about this project by **March 4th, 2026**.

Thank you for your time and coordination on this project. We look forward to hearing from you.

Erika Hinz

Highway Environmental Biologist II - Threatened and Endangered Species

Nebraska Department of Transportation

1500 Nebraska Parkway, Lincoln, NE 68502

HOURS 7:00AM-3:30PM

PHONE 402-479-3546

erika.hinz@nebraska.gov