

Resource Report 3

Fish, Wildlife and Vegetation



Resource Report No. 3
Fish, Wildlife, and Vegetation

Central Mainline Corridor Expansion Project
FERC Docket No. CP26- -000

Volume 1 - Public

April 2026

RESOURCE REPORT 3 – FISH, WILDLIFE, AND VEGETATION

SUMMARY OF FILING INFORMATION

MINIMUM REQUIREMENT	LOCATION ADDRESSED
Classify the fishery type of each surface waterbody that would be crossed, including fisheries of special concern. (18 CFR § 380.12(e)(1)) <ul style="list-style-type: none"> This includes commercial and sport fisheries as well as cold water and warm- water fishery designations and associated significant habitat. 	Sections 3.1.1 and 3.1.2 and Tables 3.1-2 and 3.1-3
Describe terrestrial and wetland wildlife and habitats that would be affected by the project. (§ 380.12(e)(2)) <ul style="list-style-type: none"> Describe typical species with commercial, recreational or aesthetic value. 	Section 3.2.1
Describe the major vegetative cover types that would be crossed and provide the acreage of each vegetative cover type that would be affected by construction. (§ 380.12(e)(3)) <ul style="list-style-type: none"> Include unique species or individuals and species of special concern. Include near shore habitats of concern. 	Sections 3.3.1 and 3.3.2 and Tables 3.1-2, 3.3-2, and 3.4-1
Describe the effects of construction and operation procedures on the fishery resources and proposed mitigation measures. (§ 380.12(e)(4)) <ul style="list-style-type: none"> Be sure to include offshore effects, as needed. 	Sections 3.1.2 and 3.1.3, Tables 3.1-2, Table 3.1-3 and 3.4-1 Appendix 3E
Evaluate the potential for short-term, long-term, and permanent impact on the wildlife resources and state-listed endangered or threatened species caused by construction and operation of the project and proposed mitigation measures. (§ 380.12(e)(4))	Sections 3.2.2 and 3.4.2
Identify all federally listed or proposed endangered or threatened species that potentially occur in the vicinity of the project and discuss the results of the consultations with other agencies. Include survey reports as specified in (§ 380.12(e)(5)). <ul style="list-style-type: none"> See § 380.13(b) for consultation requirements. Any surveys required through § 380.13(b)(5)(I) must have been conducted and the results included in the application. 	Sections 3.4.1 and 3.4.2, Table 3.2-1, Table 3.4-1, Appendix 3E, Appendix 3B
Identify all federally listed essential fish habitat (EFH) that potentially occurs in the vicinity of the project and the results of abbreviated consultations with NMFS, and any resulting EFH assessment. (§ 380.12(e)(6))	Not applicable
Describe any significant biological resources that would be affected. Describe impact and any mitigation proposed to avoid or minimize that impact. (§ 380.12(e)(4)&(7)) <ul style="list-style-type: none"> For offshore species, be sure to include effects of sedimentation, changes to substrate, effects of blasting, etc. This information is needed on a mile-by-mile basis and will require completion of geophysical and other surveys before filing. 	Sections 3.2.1, 3.2.2, 3.3.1, 3.3.2, 3.4.1 and 3.4.2
ADDITIONAL INFORMATION	
Provide copies of correspondence from federal and state fish and wildlife agencies along with responses to their recommendations to avoid or limit impact on wildlife, fisheries, and vegetation.	Appendix 3B
Provide a list of significant wildlife habitats crossed by the project. Specify locations by milepost and include length and width of crossing at each significant wildlife habitat.	Sections 3.2.1 and 3.3.1

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Abbreviations and Acronyms

BCC	Birds of Conservation Concern
BCR	Bird Conservation Region
BGEPA	Bald and Golden Eagle Protection Act
BMP	best management practice
CERT	Conservation and Environmental Review Tool
DOT	Department of Transportation
Dth/day	dekatherms per day
EAB	Emerald ash borer
EFH	Essential Fish Habitats
ESA	Endangered Species Act
ESB	environmental survey boundary
ETWS	extra temporary workspace(s)
FERC	Federal Energy Regulatory Commission
HDD	Horizontal directional drill
HDD Plan	HDD Monitoring, Inadvertent Return Response, and Contingency Plan
IBA	Important Bird Areas
IDNR	Iowa Department of Natural Resources
IPaC	Information, Planning and Consultation System
MBTA	Migratory Bird Treaty Act
MOU	memorandum of understanding
MP	milepost
NDWEE	Nebraska Department of Water, Energy, and Environment
NGPC	Nebraska Game and Parks Commission
NHD	National Hydrography Dataset
NLEB	Northern long-eared bat
Northern	Northern Natural Gas
NPPD	Nebraska Public Power District
NWI	National Wetlands Inventory
PEM	palustrine emergent
PERMT	Permit and Environmental Review Management Tool
Plan	FERC’s Upland Erosion Control, Revegetation and Maintenance Plan
Procedures	Northern’s Wetland and Waterbody Construction and Mitigation Procedures
Project	Central Mainline Corridor Expansion Project
ROW	right of way
SCCB	Suckley’s cuckoo bumble bee
SWPPP	Stormwater Pollution Prevention Plan
T&E	Threatened and Endangered
TBS	town border station
TCSB	temporary clear span bridge
TWS	Temporary workspace
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

3.0 FISH, WILDLIFE AND VEGETATION

Resource Report 3 presents a description of the fish, wildlife and vegetation resources present within the proposed Project area. The report identifies potential impacts on these resources and methods to mitigate potential adverse impacts.

Northern owns and operates a natural gas transmission pipeline system and associated aboveground facilities, including pipelines and facilities in Iowa and Nebraska. Northern is proposing to construct the Project, which will consist of (1) install 9.03 miles of 20-inch-diameter Omaha 3rd branch line loop, (2) install 14.64 miles of 30-inch-diameter NPPD Princeton Road power station branch line, (3) install 2.48 miles extension of the 20-inch-diameter Des Moines C-line, (4) uprate of the 20-inch-diameter Des Moines C-line south loop, (5) install new compressor station near Clarion, Iowa, (6) modify five compressor stations in Iowa and Nebraska allowing bidirectional flow, (7) install NPPD Princeton Road power station meter station, (8) install aboveground facilities including a launcher, receiver, tie-in valve settings, and uprate ancillary equipment. All Project components are located in various counties in Nebraska and Iowa.

Table 3.0-1 Project Facilities and Location

Component	Project Facility	Facility Description	County, State
Omaha 3rd branch line loop	9.03-mile pipeline	20-inch-diameter loop	Cass and Sarpy, NE
	Palmyra compressor station	Temporary compression site	Otoe, NE
NPPD Princeton Road power station branch line	14.64-mile pipeline	30-inch-diameter branch line	Gage and Lancaster, NE
	Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve 5 Setting	Temporary compression site	Lancaster, NE
Des Moines C-line branch line extension	2.48-mile pipeline	20-inch-diameter extension	Dallas, IA
	Ogden compressor station	Temporary compression site	Boone, IA
Des Moines C-line south loop uprate	Royal Estates reducing station	Disconnect existing MAOP control valve	Polk, IA
	Grimes Iowa TBS	New MAOP regulator	Polk, IA
	Des Moines A-line launcher	New control valve	Polk, IA
Clarion compressor station	Proposed compressor station	ISO-rated 20,500-HP	Wright, IA
Beatrice compressor station	Facility modification	New scrubber install	Gage, NE
Guthrie Center compressor	Facility modification	New piping and valves	Guthrie, IA
Oakland compressor station	Facility modification	New piping and valves	Pottawattamie, IA
Ogden compressor station	Facility modification	New piping and valves	Boone, IA
Palmyra compressor station	Facility modification	New piping, valves and regulation	Otoe, NE

Wetland and waterbody field surveys were conducted for the Project area intermittently between November and December 2025. Northern completed biological field surveys for 98% of the parcels within the Project ESB. The remaining parcels to be surveyed within the Project in 2026 are provided in Table 3.0-2.

Table 3.0-2 Project Parcel Survey Status Summary

Project Facility	MP		Parcel ID	Survey Status
	To	From		
Omaha 3rd branch line loop	0.43		CA-088	Proposed OMA-TAR-001A to be surveyed 2026
	5.20		CA-048	Proposed OMA-TAR-003 to be surveyed 2026
NPPD Princeton Road power station branch line loop	0.00		GA-051	Expanded ESB to be surveyed 2026
	7.98		GA-004 and GA-008	Proposed PRB-TAR-005 to be surveyed 2026
	9.71	10.34	LA-023	Expanded ESB to be surveyed 2026

Note: Parcels remaining to be surveyed are shown on Figure 2-4 and the Alignment Sheets.

3.1 FISHERIES

Game and non-game fish species in Nebraska and Iowa are regulated and protected by the USFWS, the NGPC and the IDNR. Regulations such as the USFWS Conservation Act of 1980 (16 USC §§ 2901-2911), the ESA and the USFWS Conservation Coordination Act of 1958. In Nebraska, the NGPC is charged with stewardship of the state's fish, wildlife, state park and outdoor recreation resources which are regulated by the Nebraska Legislature Statute Chapter 37 – Game and Parks. In Iowa, the IDNR is responsible for administering Chapter 481B of the Code of Iowa – Endangered Plants and Wildlife (Iowa Code Annotated § 481B.1 – 10). Chapter 481B is administered by the Natural Resource Commission and the Director of the Department of Natural Resources. Under Chapter 481B, the Natural Resource Commission is authorized with the following:

- To cooperate with the federal government in the conservation, protection, and artificial propagation of endangered and threatened species
- To designate a state list of endangered and threatened species by rule (Iowa Administrative Code – Natural Resource Commission [571], Chapter 77)

3.1.1 Fishery Classification

An assessment of surface water resources was completed through field reconnaissance and review of USGS topographic maps (1:24,000 scale) and NHD and NWI data as described in Section 2.2 of Resource Report 2. The ESB, which includes the Project area and a buffer around the Project area, was assessed for the presence of special waters including, National Wild and Scenic Rivers and special state and local waterbody designations as described in Section 2.2, Resource Report 2.

Construction of the Project will cross seven waterbody features: four intermittent streams and three perennial streams, including the Platte River. No designated cold-water streams were identified within the ESB. Waterbody construction methods and mitigation procedures are discussed in Section 2.2.14 of Resource Report 2. Fisheries and aquatic habitats within the ESB are primarily characterized by water temperature (warmwater, cool water or cold water) and flow (perennial, intermittent, ephemeral). Warmwater fisheries in Nebraska are further classified as either Class A or Class B. Class A waters currently support, or have the potential to support, habitat conditions needed to maintain one or more key species, along with diverse warmwater fish populations,

throughout the entire year. Class B waters, however, are limited by factors such as water volume, flow, water quality, or substrate. Because of these constraints, key species and healthy aquatic communities can only be supported on a seasonal basis. The facility, MP locations of the waterbody crossings, and state fisheries classifications are summarized in Table 3.1-1.

Table 3.1-1 Summary of Fisheries Crossed by the Project

Facility/Surface Waterbody	MP	County, State	Flow Regime	Crossing Method	State Fisheries Classification
Omaha 3rd branch line loop					
OMA-S08	7.44 – 7.64	Cass, NE	Intermittent	HDD	N/A
OMA-S10 (Platte River)	7.67 – 8.07	Cass/Sarpy, NE	Perennial	HDD	Warmwater A
NPPD Princeton Road power station branch line					
PRB-S19 (Shaw Creek)	2.94	Gage, NE	Perennial	HDD	Warmwater A
PRB-S18	7.48, 7.56	Gage, NE	Intermittent	HDD/TAR	N/A
PRB-S16 (Middle Branch Big Nemaha River)	11.30	Lancaster, NE	Perennial	HDD	Warmwater B
PRB-S15 (Spring Branch)	13.82	Lancaster, NE	Intermittent	HDD	Warmwater B
PRB-S12	14.59	Lancaster, NE	Intermittent	TWS/Open-cut	N/A

Note: No waterbodies are crossed by the Des Moines C-line branch line, Des Moines C-line south loop uprate, Clarion compressor station, Beatrice to Palmyra D-line and Beatrice to Palmyra E-line block valve 5 setting, Guthrie Center compressor station, Palmyra compressor station, Oakland compressor station, or Ogden compressor station.

Fish species that may occur within the Project area, are primarily located in waterbodies classified as warmwater fisheries, which are perennial or intermittent headwater streams and rivers. Fish species are classified by NGPC or IDNR fishing regulations as game fish, threatened and endangered species or nongame fish. No designated cool water or cold-water fisheries were identified within the ESB. Note that waterbodies without aquatic life use designations are typically smaller tributaries that may not contain suitable fisheries habitat during all or a portion of the year due to seasonally inadequate water levels.

Northern has identified the known occurrence of fish species through review of publicly available agency databases and independent literature. Representative game and select non-game fish species that may occur in the Project area are listed in Table 3.1-2. No cold-water fisheries are crossed by the Project. Note the majority of waterbodies identified are small headwater streams with no fish species identified.

Table 3.1-2 Representative Game Fish Species Known to Occur in the Vicinity of the Project Area¹

Name	Species	Type	Suitable Habitat Present	Project Component	Waterbody
Channel catfish	<i>Ictalurus punctatus</i>	Warm water	Yes	Omaha 3rd branch line loop	OMA-S10,
				NPPD Princeton Road power station branch line	PRB -S16
Common carp	<i>Cyprinus carpio</i>	Warm water	Yes	Omaha 3rd branch line loop,	OMA-S10

Name	Species	Type	Suitable Habitat Present	Project Component	Waterbody
				NPPD Princeton Road power station branch line	PRB -S16
Blue catfish	<i>Ictalurus furcatus</i>	Warm water	Yes	Omaha 3rd branch line loop	OMA-S10
Bigmouth buffalo	<i>Ictiobus cyprinellus</i>	Warm water	Yes	Omaha 3rd branch line loop	OMA-S10
Flathead catfish	<i>Pylodictis olivaris</i>	Warm water	Yes	Omaha 3rd branch line loop	OMA-S10
Freshwater drum	<i>Aplodinotus grunniens</i>	Warm water	Yes	Omaha 3rd branch line loop	OMA-S10
River carpsucker	<i>Carpionodes carpio</i>	Warm water	Yes	NPPD Princeton Road power station branch line	PRB -S16
Green sunfish	<i>Lepomis cyanellus</i>	Warm water	Yes	NPPD Princeton Road power station branch line	PRB-S16, PRB -S19
Largemouth bass	<i>Micropterus salmoides</i>	Warm water	Yes	NPPD Princeton Road power station branch line	PRB -S19

¹ Federal- and state-listed T&E species are not included in Table 3.1-2; they are discussed in Section 3.4.

3.1.2 Fisheries of Special Concern

Surface waters within the Project area were evaluated to determine the presence of fisheries of exceptional recreational value, such as waters that support cold-water fisheries through natural reproduction, provide habitat for protected species, are assigned special state fishery management regulations, or are designated as EFH. Other special-concern fisheries evaluated include those where economic investments have been implemented, such as clean-up or stocking programs, or those that support commercial or tribal harvests.

Sensitive fish distribution data were obtained from the USFWS IPaC system and consultation with the USFWS Nebraska Field Office, USFWS Iowa Field Office, the NGPC CERT and the IDNR PERMT. Determinations for potential impacts were made based on field observations and review of available literature. Information on federally listed or state-listed T&E or special concern fish species can be found in Section 3.4. No cold-water fisheries or trout streams will be crossed by the Project.

3.1.3 Construction and Operation Impacts

Pipeline installation at waterbody crossings has the potential to temporarily affect aquatic habitats and fish species through sedimentation, increased turbidity, localized habitat disturbance, or inadvertent releases of drilling mud. Northern has designed the Project to avoid or minimize these impacts through the use of HDD in accordance with its HDD Plan, dry-ditch construction methods, and implementation of the FERC Plan and its Procedures.

Northern will cross six of seven waterbodies, including the Platte River, using HDD. The remaining waterbody will be crossed using open-cut and dry-ditch construction methods. Two of the waterbodies crossed by pipeline installation also will require a TCSB for a TAR. HDD avoids in-stream excavation and disturbance of the channel bed and banks and, therefore, avoids direct impacts on aquatic habitat and fish species. All perennial waterbodies with potential fish habitat

will be crossed using HDD. As a result, removal of riparian vegetation and increases in water temperature are not expected at these crossings.

HDD

The primary potential impact associated with HDD construction is an inadvertent release of drilling mud. Drilling mud from an HDD may leak through previously unidentified fractures in the material underlying the riverbed, in the area of the mud pits, or along the path of the drill, due to unfavorable ground conditions. Drilling mud is composed of naturally occurring, non-toxic materials; however, if released in sufficient quantities, it could temporarily increase turbidity or settle within localized aquatic habitats.

An increase in turbidity due to an inadvertent release of drilling mud can affect aquatic organisms both directly by burial, abrasion and reduced visibility and indirectly by behavior alterations of prey and predators or food chain effects. Increased turbidity would reduce water clarity and have a short-term effect on algae and aquatic vegetation growth due to the reduction in sunlight. Fish near the inadvertent release could experience turbidity high enough to damage gills, cause stress or result in death. Turbidity also could affect fish behavior, including their ability to hunt or avoid predators. A decrease in water quality due to turbidity would be a short-term effect that may last hours to days before drilling mud settles. Additionally, bentonite clay from a possible inadvertent release could settle in the interstitial spaces between large substrate particles. These interstitial spaces are important for invertebrates and the egg and fry life stages of fish; fine grain sediment could smother organisms living in these habitats.

Northern will minimize the potential for and effects of an inadvertent release by implementing its HDD Plan (Resource Report 1, Appendix 1A). The HDD Plan includes pre-construction planning, monitoring during drilling, and the staging of spill containment and response materials at waterbody crossings. If an inadvertent release occurs, drilling will be temporarily suspended, containment measures will be deployed, and the appropriate agencies and FERC will be notified, in accordance with Northern's Procedures. Therefore, potential effects from an inadvertent release would be short term and temporary.

Open-cut

One intermittent waterbody (PRB-S03) will be crossed using open-cut, dry-ditch construction, and two intermittent waterbodies (PRB-S18 and PRB-S12) will be crossed by a temporary access road. At the open-cut crossing location Northern will use a TCSB and dry-ditch construction technique (dam and pump or flume) to maintain or temporarily divert flow. During construction and operation of the Project, aquatic resources could be affected by changes in water quality via sedimentation; spills or leaks of contaminated materials; impingement or entrapment in pumps used for dry-ditch construction; or habitat loss or modification. The open cut crossing method will be conducted in accordance with the measures for dry-ditch crossing methods identified in Northern's Procedures. Trench dewatering will be discharged to upland areas through approved filtration measures to prevent sediment laden water from entering surface waters. Northern will properly align flume and pump discharge locations to prevent waterbody scour; and pump intakes will be screened to prevent entrapment of fish, and diverted flows will be restored following construction. At locations where waterbodies will be crossed by a TAR, Northern will utilize a TCSB/construction matting to span the waterbody and avoid direct disturbance to the aquatic habitat.

Potential indirect impacts from open-cut construction, including short-term increases in turbidity, sedimentation or riparian vegetation removal, will be minimized through the use of erosion and sediment controls, dry channel construction methods, and adherence to FERC's Plan and Northern's Procedures, as well as applicable Nebraska requirements. Disturbed streambeds and banks will be restored to preconstruction conditions to the extent practicable. No waterbodies are crossed by Iowa Project components.

Prior to placing the Project into service, the pipeline segments will be hydrostatically tested. The pipeline segments will be filled with water obtained from an off-site municipal source and brought to the Project. Northern may recycle the test water to be used in multiple test sections as a water conservation measure. After use, hydrostatic test water will be containerized, tested and discharged on site in upland areas in accordance with the applicable state and local permit requirements. Hydrostatic test water will not be discharged directly into the Platte River. No impacts on fisheries or special status fish species are anticipated as a result of the discharge of hydrostatic test water; and no blasting will occur within waterbodies crossed by the Project.

Refueling or lubricating of vehicles or equipment will be performed in accordance with Northern's Procedures and will occur no closer than 100 feet from a waterbody unless no feasible alternative exists (e.g., HDD equipment that cannot be moved for refueling), or a greater setback is stipulated by a permitting agency. The refueling buffers are depicted on the SWPPP maps in Appendix 7D of Resource Report 7. ETWS, staging areas and temporary access roads will be located a minimum of 50 feet from waterbody boundaries except at locations discussed in Resource Report 1, Table 1.3-3.

Operation of the Project will be limited primarily to routine inspection and maintenance of the permanent ROW. Northern will conduct tree clearing as necessary within the permanent ROW for the Project per the Plan and its Procedures. Northern will not conduct vegetation maintenance in the permanent ROW at HDD crossings in riverine environments. Therefore, no operational impacts on fisheries or aquatic resources are anticipated.

Based on the use of HDD at sensitive crossings, implementation of dry-ditch construction methods, adherence to the FERC's Plan and Northern's Procedures, and site restoration measures, impacts on fisheries and aquatic resources would be temporary, localized, and minimal, and no permanent loss of fisheries habitat is anticipated to occur as a result of the Project.

3.2 WILDLIFE

Game and non-game wildlife species in Nebraska and Iowa are regulated and protected by USFWS, NDWEE, and IDNR. Regulations such as the ESA of 1973, the USFWS Conservation Act of 1980 and the USFWS Conservation Coordination Act of 1958 also regulate protected plant and animal species of concern. State regulations protect listed species in Nebraska and Iowa through the Nebraska Nongame and Endangered Species Conservation Act (1975), and the Iowa Endangered Plants and Wildlife is Chapter 481B of the Code of Iowa, which is administered by the Natural Resource Commission and the IDNR. Additional information on federal and state threatened species can be found in Section 3.4.

The Project area and surrounding vicinity is comprised of residential land, agriculture land, industrial/commercial land, open land, wetlands, open water, and forests, which are common in Iowa and Nebraska. The existing conditions within the Project area are described further in Section 3.3.1. A review of pertinent literature and field observations were used to determine the spatial

distribution, habitat requirements, and ecological status of wildlife species observed or known to occur in the Project area. The setting and anticipated effects to terrestrial wildlife are described further in Sections 3.2.1 and 3.2.2.

3.2.1 Existing Resources

Some of the major wildlife species that are common in the Project area include white-tailed deer (*Odocoileus virginianus*), gray fox (*Urocyon cinereoargenteus*), red fox (*Vulpes vulpes*), coyote (*Canis latrans*), eastern cottontail rabbit (*Sylvilagus floridanus*), gray squirrel (*Sciurus carolinensis*), fox squirrel (*Sciurus niger*), field mice (*Apodemus sylvaticus*), and eastern chipmunk (*Tamias striatus*). Some of the common birds that may be present include wood thrush (*Hylocichla mustelina*), scarlet tanager (*Piranga olivacea*), various warblers (family Parulidae), Canada goose (*Branta canadensis*), ring-necked pheasant (*Phasianus colchicus*), wild turkey (*Meleagris gallopavo*), and turkey vulture (*Cathartes aura*).

Wildlife observations made during the 2025 and 2026 field surveys included American crow (*Corvus brachyrhynchos*), blue jay, American robin, American goldfinch, tufted titmouse, northern cardinal, horned lark (*Eremophila alpestris*), mourning dove, Eurasian collared-dove, killdeer (*Charadrius vociferus*), yellow-rumped warbler (*Setophaga coronata*), northern flicker (*Colaptes auratus*), red-bellied woodpecker (*Melanerpes carolinus*), red-winged blackbird (*Agelaius phoeniceus*), Canada goose, snow goose (*Anser caerulescens*), greater white-fronted goose (*Anser albifrons*), mallard, northern pintail (*Anas acuta*), green-winged teal (*Anas crecca*), bald eagle, red-tailed hawk, Cooper's hawk, American kestrel, barred owl, turkey vulture, white-tail deer, fox squirrel, eastern cottontail rabbit, monarch butterfly (*Danaus plexippus*), American bullfrog (*Rana catesbeiana*), and an unidentified canine species (family Canidae).

During a February 2026 raptor nest survey, Northern identified 77 total potential raptor nests. Three bald eagle nests were identified by size (five to six feet in diameter or larger) and structure in the vicinity of the Omaha 3rd branch line loop in Cass and Sarpy counties, Nebraska. Two of these nests were adjacent to each other, and an adult bald eagle pair was occupying the territory of these nests. The third eagle nest did not have a bald eagle present in the near vicinity, but a subadult bald eagle was seen perched approximately one mile south of the nest. No direct species observations at nests were made; however, based on smaller sizes, 74 additional nests were deemed suitable for other raptor species. Table 3.2-1 in Appendix 3E provides a summary of eagle and other raptor nests located within or in proximity to the Project. Exact nest locations are shown on Figure 3-1 (filed as P&C).

No raptor nests were observed near the aboveground facilities associated with the Project. However, a heron rookery was identified within 1,000 feet southeast of the Des Moines C-line south loop uprate ESB in Polk County, Iowa.

Northern will conduct follow-up surveys early spring 2026 to confirm if the identified eagle nests or any other raptor nests within immediate proximity to planned Project workspace are active; a third round of nest surveys will be completed prior to construction during the winter of 2027 to verify the status of previously identified nests and determine whether any new nests have been established. If active bald eagle nests are identified within 660 feet of the Project workspace, Northern will consult with the USFWS to ensure compliance and avoid incidental take of bald eagles. Additionally, Northern will adhere to guidance provided by the USFWS and the IDNR or NDWEE to prevent incidental take of other raptor species protected under the MBTA.

3.2.2 Construction and Operation Impact

Construction of the Project will have minor impacts on wildlife habitat, causing localized impacts on wildlife populations. Construction of the Project will result in a temporary loss of vegetative cover. The areas of temporary impacts will be restored to pre-construction conditions pursuant to the provisions in the Plan and Northern's Procedures. Construction activities may result in mortality of less mobile forms of wildlife such as small rodents and reptiles. In addition, construction activities may cause the temporary loss of habitat and the displacement of wildlife from the immediate vicinity of the Project area. Northern has designed the Project to utilize HDD methods, where practicable to cross under a majority of the wetlands and forested areas and six of the seven waterbodies crossed by the Project to minimize habitat disturbance and fragmentation. Mulch, if used, will not contain synthetic (plastic) fiber additives in areas that drain to water resources. Erosion control mesh, if used, will be limited to bio-netting or natural netting.

Wildlife escape ramps and passages will be constructed to prevent wildlife entrapment in the excavated trenches. Northern will minimize the amount of time the trenches are open to minimize the chance of wildlife entrapment. Northern's EIs will extract wildlife from the trench on a daily basis. If the species is identified as threatened or endangered, Northern will consult with the appropriate regional NDWEE or IDNR non-game wildlife specialist prior to proceeding with removal of the species.

Northern is committed to the restoration and preservation of pollinator habitat. Northern joined the USFWS Nationwide Monarch Butterfly Candidate Conservation Agreement on Energy and Transportation Lands in 2020. Northern will plant pollinator friendly species where temporary impacts are proposed. Northern also will offer landowners the option of utilizing pollinator friendly seed mixtures on privately owned lands disturbed by construction within the Project workspaces. Northern has successfully seeded public areas disturbed by construction creating a dense pollinator habitat within the following growing season. Wetlands that are temporarily impacted by the Project will be allowed to revegetate naturally, or if required, will be seeded with a pollinator-friendly seed mix that is approved for the region or location where disturbance occurs.

The Omaha 3rd branch line loop overlaps the Platte River between MP 7.67 and MP 8.07 and the Platte River State Park between MP 7.67 and MP 8.07. Approximately 72 acres of contiguous forest is present within the Project area that overlaps the park. However, majority of this land will be crossed via HDD and tree removal in this area will be limited to less than one acre of tree trimming and/or clearing by hand for the HDD travel lane. No other significant and sensitive wildlife habitats (e.g., large tracts of contiguous forest, migration routes, and protected federal, state or private wildlife management areas) are present within the Project area; therefore, the Project will have no effects on critical or sensitive habitats. Refer to Section 3.4 for discussion of T&E species habitats.

3.3 VEGETATION

3.3.1 Existing Resources

The primary vegetation cover type affected by the Project is agriculture (cropland and pasture). The proposed Project consists of approximately 457.58 acres of agriculture, 1.97 acres of forested/woodland habitat, 44.82 acres of open land, 21.31 acres of industrial/commercial land, 0.84 acre of residential land, 3.05 acres of wetland, and 0.28 acre of open water. Note that the

industrial/commercial land consists of Northern’s existing facilities, with little to no permanent land cover impacts anticipated from planned work activities.

Additional information on existing resources along with temporary and permanent impacts from construction and operation of the Project are presented in Table 3.3-2 and discussed below. Additional land use information is provided in Resource Report 8, Section 8.1.

Agriculture (Cropland and Pasture)

Agricultural land within the Project area consists primarily of corn and soybeans, with limited areas of active pasture. No agricultural land is located within the Grimes Iowa TBS component of the Des Moines C-line south loop uprate, as well as the Beatrice, Guthrie Center, Oakland, Ogden and Palmyra compressor stations.

Forested/Woodland

Forested and woodland areas within the Project consists of upland forest communities, including hardwood forest, mixed hardwood–conifer forest, and planted pine stands. Forested upland areas are present within the NPPD Princeton Road power station branch line and the Omaha 3rd branch line loop Project components. No other Project components contained forested or woodland communities.

Within the Omaha 3rd branch line loop, forested areas are primarily associated with upland areas surrounding large wetland complexes, riparian corridors, and drainage systems. Common overstory species observed during field surveys included bur oak (*Quercus macrocarpa*), American elm (*Ulmus americana*), hackberry (*Celtis occidentalis*), basswood (*Tilia americana*), Siberian elm (*Ulmus pumila*), and honey locust (*Gleditsia triacanthos*). Forested areas within the NPPD Princeton road power station branch line primarily consist of wooded strips and small wooded lots separating cultivated agricultural fields. Dominant species observed in these areas included chokecherry (*Prunus virginiana*), Osage orange (*Maclura pomifera*), eastern cottonwood (*Populus deltoides*), hackberry, Siberian elm, white mulberry (*Morus alba*), and honey locust. Understory vegetation within the forested communities was dominated by non-native grasses, particularly smooth brome (*Bromus inermis*), where overstory canopy cover was sparse.

Tree clearing or trimming is limited to approximately 0.88 acre along the Omaha 3rd branch line loop and approximately 1.09 acres along the Princeton NPPD Princeton Road power station branch line in Nebraska. No other Project components will require tree clearing.

Open Land

Open land communities within the Project area consists of non-forested herbaceous uplands, including rangeland, fallow land, pastureland, grasslands, early successional old fields, hay fields, and other herbaceous areas dominated by a mixture of mid-grass and short-grass species, introduced grasses, and annual species. Open land vegetation communities also include mowed areas and mixed grass-and-weed communities associated with road ROWs.

Open land vegetation was observed within all Project areas, with the exception of the Grimes, Iowa, TBS that is part of the Des Moines C-line south loop uprate. Note that data used from the National Land Cover Database (Homer et al. 2015; Table 3.3-2) may not fully represent the extent of open land within the Project area, as open land frequently occurs as narrow strips along road ROWs or as intermittent vegetation within predominantly industrial or developed areas.

Common plant species observed within open land communities included non-native grasses such as smooth brome and Kentucky bluegrass (*Poa pratensis*), as well as native and introduced herbaceous species including Indiangrass (*Sorghastrum nutans*), big bluestem (*Andropogon gerardii*), yellow foxtail (*Setaria pumila*), red clover (*Trifolium pratense*), and prairie cordgrass (*Spartina pectinata*).

A large sand plain community was observed along the northern bank of the Platte River within the Omaha 3rd branch line. Vegetation within this area included scattered immature cottonwood (*Populus deltoides*), sandbur (*Cenchrus longispinus*), flatsedge (*Cyperus* spp.), camphorweed (*Heterotheca subaxillaris*), and little bluestem (*Schizachyrium scoparium*).

Residential

This land type encompasses maintained weedy and/or non-native-dominated vegetation communities surrounding single-family homes and communities. These vegetation communities intersecting Project workspaces included species such as Kentucky bluegrass, white clover (*Trifolium repens*), green foxtail (*Setaria viridis*), common sunflower (*Helianthus annuus*), and Canadian horseweed (*Conyza canadensis*).

Wetlands (Emergent)

Wetland vegetation communities within the Project area consists of areas dominated by hydrophytic vegetation and exhibiting hydric soils and wetland hydrology. A total of 44 wetlands were identified within the ESB for the Project; however, only 14 wetlands will be crossed by Project workspaces.

All wetlands crossed by the Project are classified as PEM wetlands and include seasonally flooded basins, shallow marshes, and wet meadows or disturbed wet meadows. PEM wetlands observed within the Project area were generally degraded or of low vegetative quality. Wet meadow communities were frequently dominated by reed canary grass (*Phalaris arundinacea*), while shallow marshes were typically dominated by invasive narrow-leaf or hybrid cattail (*Typha* spp.). Seasonally flooded basins were predominantly farmed wetlands, characterized by stunted agricultural crops and/or weedy volunteer vegetation, including barnyard grass (*Echinochloa crus-galli*) and rough-fruited waterhemp (*Amaranthus tuberculatus*). Additional information on the wetland types and common vegetation is provided in Resource Report 2, Section 2.3

Noxious Weeds

Lists of potential noxious and invasive weeds were obtained from federal and state sources prior to the field surveys. The federal list was obtained from the USDA's Introduced, Invasive and Noxious Plants database (USDA 2010). State lists were obtained from the NDA (2025) and from Chapter 317 of the Iowa Code, which is administered at the county level by a Weed Commissioner. In addition to state and federal noxious weed regulations, Cass, Sarpy, Gage and Lancaster counties, Nebraska regulates control of noxious weed at a local level through a Weed Control Authority. None of the counties crossed by the Project maintain county-level lists for Iowa. Noxious weeds are opportunistic and are often non-indigenous plant species that readily invade disturbed areas, resulting in monocultures. Invasive species prevent native plants from establishing communities. Noxious weeds also degrade agricultural and natural resources, including water, wildlife habitat and recreational use.

Noxious and invasive weed surveys were conducted within the Project ESBs intermittently between September and December 2025. Observed occurrences of noxious and invasive plant species were limited within Project workspaces. One occurrence of invasive wild parsnip (*Pastinaca sativa*) was identified near a road ROW within the Des Moines C-line south loop uprate. Two occurrences of invasive common reed (*Phragmites australis* subsp. *australis*) were documented in areas near or adjacent to Project workspaces within the Omaha 3rd branch line loop. Specifically, common reed grass was observed within an open water feature (OMA-OW01) adjacent to temporary access road OMA-TAR-009 and near a culvert immediately west of extra temporary workspace OMA-ETWS-054. Details regarding noxious and invasive weeds within workspace areas of the Project are provided in Table 3.3-1; As part of the Noxious Weed Control Plan, Northern has developed a plan to mitigate, minimize and control the spread of invasive plant species in wetlands. A copy of the Noxious Weed Control Plan has been included in Resource Report 3, Appendix 3A.

Table 3.3-1 Noxious Weed Species Observed

Facility	MP/General Location	Noxious Species Observed
Des Moines C-Line South Loop Uprate	Road ROW along Royal Estates reducing station	Wild parsnip
Omaha 3rd Branch Line Loop	Within OMA-OW01, between temporary access road OMA-TAR-009 and extra temporary workspace OMA-ETW-047 (MP 8.28)	European Common Reed (<i>Phragmites</i>)
	West of extra temporary workspace OMA-ETWS-054 along stream OMA-S11	

Northern has developed a Project-specific Noxious Weed/Invasive Plant Control and Mitigation Plan that will be used to prevent, mitigate and control the introduction and spread of noxious weeds and invasive species during the Project's activities. A copy of the Noxious Weed/Invasive Plant Control and Mitigation Plan is included in Appendix 3A. Following construction of the Project, Northern will monitor the construction corridor in accordance with FERC's Plan and the Noxious Weed/Invasive Plant Control and Mitigation Plan to prevent and control the potential introduction and subsequent spread of noxious weeds and invasive species during Project activities.

Unique, Sensitive, or Protected Vegetation

To evaluate the potential presence of unique, sensitive, or protected vegetation resources within the Project area, Northern reviewed available federal and state conservation data sources for Project components in Nebraska and Iowa.

For Project components located in Nebraska, data were obtained from the Nebraska CERT and an approved ERR issued by the NGPC. A discussion of findings follows.

No protected areas, natural communities, or other select special vegetation resources were identified within the immediate vicinity (defined as a 0.5-mile review boundary) of the Beatrice compressor station or the Palmyra compressor station.

Protected or sensitive resources identified over 0.8 mile from the west end of the NPPD Princeton Road power station branch line include:

- Private Wetlands Reserve Program area
- Biologically Unique Landscape designated for saline wetland habitat

Protected or sensitive resources identified within one mile of the Omaha 3rd branch line loop include:

- A private Farm and Ranchland Protection Program area (Private Land Trust #21) – located 600 feet to the west
- Platte River State Park - overlaps
- Louisville State Recreation Area -located over 0.7 mile to the east
- Lower Platte River Biologically Unique Landscape
- Oak–Hickory–Ironwood Forest natural community (State Rank S2 [imperiled]; Global Rank G3 [vulnerable])

Of these resources, only Platte River State Park overlaps Project workspaces between MP 7.43 and MP 7.68. Northern has designed Project workspaces associated with the Platte River HDD to occur within existing disturbed areas on state park lands, avoiding direct impacts on these sensitive ecological resources. Northern will follow the FERC Plan and its Procedures to prevent offsite runoff from construction activities to minimize impacts on natural resources in proximity to the Project. Northern will coordinate with the NGPC regarding additional appropriate protective measures during construction activities, as needed, to minimize indirect impacts from stormwater runoff.

The NGPC also identifies saline wetlands along the floodplain and surrounding uplands of Salt Creek and its tributaries including Little Salt Creek and Rock Creek as rare resources that provide habitat for the Salt Creek tiger beetle, which is a state and federally listed species. However, the Project does not cross any of these waterbodies and no saline wetlands were identified within the Project ESB. Salt Creek is located approximately three miles north of the NPPD Princeton Road power station branch line MP 14.30. Northern will follow the FERC Plan and its Procedures to prevent offsite runoff from construction activities to minimize impacts on rare resources in proximity to the Project. Northern will coordinate with the NGPC, regarding protective measures to avoid indirect impacts to potential saline wetlands that may be in vicinity of the NPPD Princeton Road power station branch line, therefore, the Project is anticipated to have no impact on saline wetlands or the Salt Creek tiger beetle.

To evaluate the presence or absence of unique, sensitive, or protected vegetation within Iowa Project components, publicly available data on public lands, protected areas, public access lands, and other managed lands were reviewed using Iowa State University's Iowa Geographic Map Server and the USGS Protected Areas Database of the United States. Northern also submitted environmental review requests to the IDNR using the PERMT, to obtain response letters of known sensitive ecological areas that may occur in vicinity of the Iowa Project components, respectively. Based on the data resources reviewed above and per the IDNR responses received via email dated March 10, 2026, no unique, sensitive, or protected vegetation communities are crossed by the Project or occur within the Project's immediate vicinity. Coordination with agencies is provided in Appendix 3B.

The closest sensitive ecological area to planned Project workspace in Iowa is the Beaver Creek Greenbelt, a 73-acre public access park owned by Polk County, located approximately 0.5 mile north of the Grimes, Iowa TBS. Additionally, one protected area, the Saylorville WMA, is located approximately two miles east of the Des Moines C-Line branch line extension. Although Project facilities do not overlap this resource, several drainage features within and adjacent to the Des Moines C-Line branch line extension area may provide hydrologic connectivity to the Saylorville WMA and the broader Des Moines River Valley.

Northern will follow the Plan and its Procedures and apply BMPs identified within the Project-specific SWPPP to minimize indirect impacts from construction related runoff to protected vegetative communities within vicinity of the Project. Based on the above information, Northern will not directly impact unique, sensitive or protected vegetation communities; and does not anticipate indirect impacts on any that occur within the vicinity of the Project.

No state or federal quarantine requirements are currently in effect for tree diseases in Nebraska. EAB has been documented in Sarpy, Cass, and Lancaster counties, Nebraska as of spring 2024

(NDA 2026). The following Nebraska Project components occur in counties with documented EAB:

- The Omaha 3rd branch line loop (Cass and Sarpy counties)
- Beatrice to Palmyra D-line and Beatrice to Palmyra E-line block valve 5 setting (Lancaster County)
- Portions of the NPPD Princeton Road power station branch line between MP 8.85 and the NPPD Princeton Road power station meter station (Lancaster County)

Other tree diseases, including oak wilt, pine wilt, and Dutch elm disease, have been reported within Nebraska, although county-level distribution data are limited. Northern will avoid transporting cut trees outside of the local areas, to the extent practicable, to minimize the potential spread of tree pests and diseases. Trees will typically be disposed of within the applicable county or, at the landowner's request, left onsite for beneficial reuse. Although no active wood-movement quarantines are currently in effect in Nebraska, tree clearing will occur during late August or September of 2027 for the Omaha 3rd branch line and fall and winter 2027 for the NPPD Princeton Road power station branch line which comply with typical BMPs to minimize transmittal of affected trees. No other components will require tree clearing.

3.3.2 Construction and Operation Impacts

The primary vegetation impact associated with the Project will be a temporary loss of vegetative cover within construction workspaces. Northern will identify and flag the limits of clearing in the field prior to clearing operations. Secondary effects associated with disturbances to vegetation could include the increased potential for soil erosion and introduction and establishment of invasive weed species.

Approximately 3.05 acres of emergent wetlands will be impacted by construction of the proposed Project, including TWS, ETWS and access roads. Additional information on the wetland types and common vegetation is provided in Resource Report 2, Section 2.3. These wetlands will be allowed to revegetate naturally; if seeding is required, Northern will utilize a pollinator friendly mix.

Approximately 2.14 acres of wetland will be affected by operation and maintenance of the Project facilities. The Project will require permanent fill placement totaling 1.74 acres at the Clarion compressor station associated with the proposed facility yard. The remaining 0.4 acre of operational wetland impact consists of maintaining emergent wetlands on the Omaha 3rd branch line loop, Princeton Road power station branch line, and Des Moines C-line branch line extension pipeline easements.

The majority of impacts on vegetation types, such as agricultural, open lands and wetlands, will be temporary and returned to preconstruction conditions within one to two growing seasons following restoration. Forested cover types are impacted the greatest by construction. Vegetation will take longer to return to pre-construction conditions in forested areas. Northern has designed the Project, utilizing HDD crossings to avoid surface impacts on forested lands to the extent practicable and will conduct post-construction inspections to verify revegetation success. Vegetation within the ROW corridor and above-grade facilities will be maintained in an emergent state by mowing, cutting, and trimming as necessary. The frequency of the vegetation maintenance will be in accordance with the Plan and Northern's Procedures, as required by operation of the Project. The acreage of potential temporary and permanent impacts for each of the vegetation cover types are summarized on Table 3.3-2.

Table 3.3-2 Estimated Disturbance of Vegetation Cover Types

Project Component	Agricultural (acres)		Forested (acres)		Open Land (acres)		Industrial/ Commercial (acres)		Residential (acres)		Wetland (acres)		Open Water (acres)		Total (acres)	
	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm
Nebraska Pipeline Extensions																
Omaha 3rd Branch Line Loop	137.29	44.24	0.88	0.13	25.86	5.17	7.99	3.30	0.81	-	0.38	0.27	0.28	-	173.49	53.11
NPPD Princeton Road Power Station Branch Line ¹	263.15	80.65	1.09	0.36	15.60	3.70	3.87	0.15	0.03	-	0.29	0.11	-	-	284.03	84.97
Subtotal	400.44	124.89	1.97	0.49	41.46	8.87	11.86	3.45	0.84	-	0.67	0.38	0.28	-	457.52	138.08
Iowa Pipeline Extensions																
Des Moines C-line Branch Line Extension	50.37	14.94	-	-	1.83	0.23	0.80	0.10	-	-	0.02	0.02	-	-	53.02	15.29
Iowa Uprate and Nebraska and Iowa Above Ground Facilities																
Des Moines C-Line South Loop Uprate	0.07	-	-	-	0.94	-	3.14	-	-	-	-	-	-	-	4.15	-
Clarion Compressor Station	6.60	4.46	-	-	0.06	0.06	1.09	1.09	-	-	2.36	1.74	-	-	10.11	7.35
Beatrice Compressor Station	-	-	-	-	-	-	0.57	-	-	-	-	-	-	-	0.57	-
Guthrie Center Compressor Station	-	-	-	-	0.53	-	1.35	-	-	-	-	-	-	-	1.88	-
Oakland Compressor Station	-	-	-	-	-	-	0.73	-	-	-	-	-	-	-	0.73	-
Ogden Compressor Station	-	-	-	-	-	-	0.51	-	-	-	-	-	-	-	0.51	-

Project Component	Agricultural (acres)		Forested (acres)		Open Land (acres)		Industrial/Commercial (acres)		Residential (acres)		Wetland (acres)		Open Water (acres)		Total (acres)	
	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm	Temp	Perm
Palmyra Compressor Station	-	-	-	-	-	-	1.26	-	-	-	-	-	-	-	1.26	-
Subtotal	6.67	4.46	-	-	1.53	0.06	8.65	1.09	-	-	2.36	1.74	-	-	19.21	7.35
PROJECT TOTAL	457.48	144.29	1.97	0.49	44.82	9.16	21.31	4.64	0.84	-	3.05	2.14	0.28	-	529.75	160.72

Source: 2011 National Land Cover Database (Homer et al., 2015).

¹ Includes temporary impacts totaling 1.54 acre (0.13 acre of agricultural, 1.37 acres of open land and 0.04 acre of industrial/commercial) associated with ETWS at the Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve 5 Setting.

- Represents 0.00 acres

3.4 T&E SPECIES

3.4.1 Existing Resources

The USFWS IPaC Environmental Conservation Online System was accessed to obtain lists of federally listed T&E, proposed and candidate species and federally designated critical habitat that may be present within the Project. These lists are provided in the habitat assessment reports in Appendix 3C. Species listed within the obtained USFWS IPaC official species lists were further assessed through the USFWS IPaC determination keys (D-keys) to generate consistency and concurrence letters for individual species that may be affected by the Project. Northern completed the determination keys for the Omaha 3rd branch line loop and Beatrice compressor station on March 4, 2026. Northern also completed a review using the IDNR PERMT for state-listed species within Iowa Project components and completed a review using the NGPC CERT for state-listed T&E species with the potential to occur within Nebraska Project components.

Available data describing the life history, critical habitat and conservation measures associated with each species was used to help determine if the Project may have an adverse effect on listed species. Data was retrieved from sources, including the USFWS Region 3 website (USFWS 2026a), NatureServe Explorer Online Encyclopedia of Life (NatureServe 2026), and relevant scientific journals and publications referenced below.

Field surveys to identify habitat were conducted for the Project intermittently between October and November 2025. Federally and state-listed species that potentially occur within the vicinity of the Project, along with the Project component and county where they may occur, their habitat description and anticipated Project impacts, are presented in Appendix 3E, Table 3.4-1 and further discussed below. Northern began initial informal consultation with the USFWS November 2025, and the IDNR PERMT and NGPC CERT March and February 2026, respectively; records of agency correspondence are located in Appendix 3B.

Federal Special Status Species Occurring in the Vicinity of the Project

The IPaC collectively lists ten federally proposed, threatened, or endangered species that may potentially occur within the Project area. The listed species for each Project component is provided below.

Omaha 3rd branch line (Cass and Sarpy Counties, Nebraska)

- Northern long-eared bat (*Myotis septentrionalis*)
- Tricolored bat (*Perimyotis subflavus*)
- Piping plover (*Charadrius melodus*)
- Pallid sturgeon (*Scaphirhynchus albu*)
- Monarch butterfly (*Danaus Plexippus*)
- SCBB (*Bumbus suckleyi*)
- Western regal fritillary (*Speyeria idalia*)
- Western prairie fringed orchid (*Platanthera praeclara*)

NPPD Princeton Road Power Station branch line (Gage and Lancaster Counties, Nebraska)

- Piping plover
- Pallid sturgeon
- Monarch butterfly
- SCBB

- Western regal fritillary
- Western prairie fringed orchid

Des Moines C-line branch line and Des Moines C-line south loop uprate (Dallas and Polk Counties, Iowa)

- Indiana bat (*Myotis sodalis*)
- Monarch butterfly
- Western regal fritillary

Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve Setting 5 (Lancaster County, Nebraska)

- Piping plover
- Monarch butterfly
- SCBB
- Western regal fritillary
- Western prairie fringed orchid

Clarion compressor station (Wright County, Iowa)

- Topeka shiner (*Notropis topeka*)
- Monarch butterfly

Beatrice compressor station (Gage County, Nebraska)

- Northern long-eared bat
- Monarch butterfly

Guthrie Center compressor station (Guthrie County, Iowa)

- Indiana bat
- Monarch butterfly

Oakland compressor station (Pottawattamie County, Iowa)

- Piping plover
- Monarch butterfly
- SCBB

Ogden compressor station (Boone County, Iowa)

- Indiana bat
- Monarch butterfly
- SCBB
- Western regal fritillary

Palmyra compressor station (Otoe County, Nebraska)

- Monarch butterfly
- SCBB
- Western regal fritillary
- Western prairie fringed orchid

Northern long-eared bat

Suitable roosting, forage, and travel habitat for NLEB in the summer consists of a wide variety of contiguous forested and wooded habitats with varying tree density and amounts of canopy closure. While roosting, NLEB is generally found in deep crevices in areas such as forests and woodlots (i.e., live trees and/or snags greater than or equal to three inches in diameter at breast height that have exfoliating bark, cracks, crevices, and/or cavities) as well as linear features such as fence rows, riparian forests, and other wooded corridors. NLEB roosts in both live trees and snags. (Sasse and Perkins 1996; Foster and Kurta 1999; and Owen et al. 2003). During winter months, NLEB hibernates in caves or abandoned mines (Owen et al. 2003).

Portions of the Omaha 3rd branch line loop and the NPPD Princeton Road power station branch line contain suitable summer habitat for the NLEB. Potential impacts could occur if tree clearing is conducted during the summer occupancy period (April 1 through September 30), particularly during the pup season (May 15 through July 31), when incidental take could result from removal of occupied roost trees or disturbance from construction activities.

Tree clearing along the Omaha 3rd branch line loop is estimated at approximately 0.88 acre, including about 0.19 acre of trimming or hand clearing associated with the HDD travel lane south of the Platte River. Tree clearing on this component is proposed to occur during the summer occupancy period in August/September 2027 but will occur outside of the pup season. A technical assistance letter obtained from the USFWS March 5, 2026, indicates that the Project may affect the NLEB. Northern submitted a technical assistance request to the USFWS Nebraska Ecological Services Field Office on April 9, 2026, regarding proposed tree-clearing timing and conservation measures to obtain a determination that the Project will have no effect or is not likely to adversely affect the NLEB prior to initiating tree clearing outside the winter clearing window. Northern will provide the USFWS response to the technical assistance request to FERC in a supplemental filing.

Although the USFWS does not list the NLEB as having potential to occur within the NPPD Princeton Road power station branch line, the NGPC identified overlapping range during its review. Tree clearing along this Project component is estimated at approximately 1.09 acres and is proposed to occur during fall/winter 2027, avoiding the NLEB summer occupancy period and pup season. By avoiding tree clearing during the summer occupancy period and pup season, this Project component is anticipated to have no impact on the NLEB. Northern will submit a follow-up review form to the NGPC to confirm this determination.

No other Project components contain forested areas or are located within areas identified as having potential for NLEB occurrence.

Indiana bat

The Indiana bat requires forests for foraging and roosting. Semi-open to closed forested habitat with open understory, forested edges, and riparian areas are often used foraging. Summer roosts are typically behind exfoliating bark of large, often dead, trees. Roost trees are often within canopy gaps in a forest, in a fenceline, or along a wooded edge. In winter, the bats are restricted to suitable underground hibernacula such as caves and mines. After hibernation, females form maternity colonies in wooded areas for raising pups. The females will then return to the same colony every summer (USFWS 2026b).

The Indiana bat is unlikely to occur within the Des Moines Cline branch line and Des Moines Cline south loop uprate, Guthrie Center compressor station, or Ogden compressor station due to

limited or poor-quality habitat. Habitat within the Des Moines Cline branch line consists primarily of narrow woodland windbreaks, and no suitable habitat is present at Northern's existing compressor station facilities. In addition, no tree clearing is proposed for any of these Project components; therefore, construction and operation of the Project will have no effect to the Indiana bat. The USFWS does not provide a determination key for the Indiana bat in this region. Since a no effect determination was made no further consultation with the USFWS is required.

Tricolored bat

During the winter, tricolored bats hibernate in caves and mines. If mines or caves are not present within the region, they have been observed hibernating in road culverts, tree cavities, and abandoned water wells. During the non-hibernating seasons, tricolored bats roost in living or dead leaf clusters of living or dead deciduous hardwood trees. Tricolored bats also have been observed roosting in artificial structures such as barns, bridges, roofs, and other concrete structures. (USFWS 2026b). Similar to the NELB, summer occupancy period for these bats is April 1 through September 30, with a pup season of May 15 through July 31.

The tricolored bat may occur along the Omaha 3rd branch line loop due to the presence of suitable habitat; however, the Project is not located within 0.25 mile of a known occupied hibernaculum or within 150 feet of a known occupied maternity roost tree. Tree clearing on this component is proposed to occur during the summer occupancy period in August/September 2027, but outside of the pup season and may have the potential to affect the species through habitat disturbance or elevated noise levels. Tree clearing along this Project component is estimated at approximately 0.88 acre, including about 0.19 acre of trimming or hand clearing associated with the HDD travel lane south of the Platte River. A technical assistance letter obtained from the USFWS March 5, 2026, indicates that the Project may affect the tricolored bat. Northern submitted a technical assistance request to the USFWS Nebraska Ecological Services Field Office on April 9, 2026, regarding proposed tree-clearing timing and conservation measures outlined in the *Northern Long-eared Bat and Tricolored Bat Voluntary Environmental Review Process for Development Projects (Version 1.0)* to obtain a determination that the Project will have no effect or is not likely to adversely affect the tricolored. The tricolored bat was proposed to be listed as federally endangered on September 13, 2022, and the listing has not been finalized. Northern will provide the USFWS response to the technical assistance request to FERC in a supplemental filing.

Piping plover

The piping plover is migratory shorebird that uses a variety of habitats in response to local weather and tidal conditions. Habitats include sand spits, small islands, tidal flats, shoals and sandbars with inlets along the coast. Foraging habitat includes sandy mud flats, ephemeral pools, and seasonally emergent seagrass beds with abundant invertebrates. In the northern Great Plains, piping plovers' nest on the unvegetated shorelines of alkaline lakes, reservoirs, or river sandbars (USFWS 2026c). According to the USFWS IPaC, the Project is not located in USFWS-designated critical habitat for the piping plover, and no suitable habitat was identified within the Project, except for, the Omaha 3rd branch line loop which crosses the Platte River where shoreline community is present. Therefore, the piping plover may occur within the Omaha 3rd branch line loop.

The Platte River will be crossed using HDD, with all construction workspaces located more than 200 feet from the riverbank (HDD entry/exit pits are approximately 0.2 mile from north bank and more than 0.30 mile from the south bank). No in-stream work or dredging is proposed. Northern will implement BMPs in accordance with FERC's Plan and its Procedures, the Project-specific

HDD Plan, and the SPCC Plan to minimize erosion, sedimentation, and the potential for inadvertent releases.

Because construction for the Omaha 3rd branch line loop may occur during the nesting period, April 15 to August 15, Northern will conduct surveys using the *Piping Plover and Interior Least Tern Survey Protocol* developed by the NGPC and USFWS (NPGC 2025), which includes the following:

- If construction occurs during the nesting season, Northern will conduct surveys at least three times per week within 0.25 mile of the Platte River crossing.
- If a piping plover nest, nesting behavior, and/or chicks are observed within 0.25 mile of active construction, the construction contractor would stop work and the NGPC and USFWS should be contacted for further instruction.
- If nesting activity is not observed between July 1 and July 15, no further surveys would be required.

By implementing the proposed minimization measures, and as the survey corridor is not within any federally designated critical habitat for the piping plover, the Omaha 3rd branch line loop may affect, but is not likely to adversely affect, the piping plover.

No other suitable habitat for the piping plover was identified within the remaining Project components; therefore, those components will have no effect on the species. Northern submitted a technical assistance request to the USFWS Nebraska Ecological Services Field Office on April 9, 2026, requesting concurrence of the survey protocol proposed as well as the effective determination on this species. Northern will provide the USFWS response to the technical assistance request to FERC in a supplemental filing.

Western prairie fringed orchid

The western prairie fringed orchid inhabits moist tallgrass prairies and sedge meadows. Throughout Nebraska, the species is typically found in mesic prairie or wet prairie in full sunlight on moist calcareous till or sandy soils. Light grazing and intermittent haying may not negatively impact this species. (USFWS undated; Anderson and Smith 2020). The Project area is primarily disturbed, consisting of agricultural fields, roadway ROW, and Northern facilities. A few prairie communities are present within the Project, namely on the Omaha 3rd branch line and the Princeton Road power station branch line components. Therefore, the western prairie fringed orchid may occur within these Project areas.

Northern completed a desktop review in March/April 2026 to effectively determine the presence or absence of suitable habitat for the western prairie fringed orchid within planned Project workspace for the components identified in the IPaC reports. Potentially suitable western prairie fringed orchid habitat was identified between MP 6.91 and MP 7.40 along the Omaha 3rd branch line loop. This segment consists of upland tallgrass prairie that may represent remnant prairie based on species composition and proximity to the Platte River. Northern will coordinate with USFWS and NGPC and complete plant surveys or habitat verification in the summer of 2026. The results of the field work will be provided to USFWS and NGPC for concurrence of a determination. No other Project components were identified as containing potentially suitable western prairie fringed orchid habitat. Northern will provide FERC a determination from the USFWS in a supplemental filing.

Pallid sturgeon

The pallid sturgeon is associated with large river systems in the continental interior, such as the Missouri River. The pallid sturgeon prefers a habitat that has a diversity of depths and velocities formed by braided channels, sand bars, sand flats and gravel bars. Wild pallid sturgeons have been noted in the Missouri River from its confluence with the Mississippi River upstream to Great Falls, Montana. Pallid sturgeons also have been captured in downstream reaches of several major tributaries of the Missouri River, such as the Platte River.

Impacts on pallid sturgeon breeding and foraging habitat are not anticipated. The pipeline will be installed using HDD methods to cross tributaries within the Platte River basin, and no in-stream work or dredging is proposed. The pipeline will be installed approximately 115 feet below the Platte River channel bed, minimizing the potential for exposure or disturbance from channel degradation. Northern will implement BMPs in accordance with FERC's Plan and its Procedures to minimize erosion, sedimentation, and runoff, and will follow its HDD Plan in the event of an inadvertent drilling fluid release. Northern will use a publicly-owned water source for hydrostatic pressure testing and drilling. No water will be appropriated from the Platte River basin. Since Platte River basin water will not be utilized for construction activities, there would be no entrainment impacts on pallid sturgeon larvae as a result of the Project. Based on these measures, the Project may affect, but is not likely to adversely affect, the pallid sturgeon. Northern will confirm this determination with the USFWS and provide documentation to FERC in a supplemental filing.

Topeka shiner

The Topeka shiner is a small freshwater minnow that commonly inhabits slow-moving streams and oxbow lakes with clean gravel or sand substrates and abundant aquatic vegetation (USFWS 2026d). The Topeka shiner is only listed as potentially occurring within one Project component, the Clarion Compressor Station. This area does not contain any waterways or waterbodies, and therefore, Northern has determined that the Project will have no effect on the Topeka shiner.

Suckley's cuckoo bumble bee

SCBB is a parasitic bumble bee that relies exclusively on the nests of other bumble bees as hosts. The SCBB historically occurs across a wide range of habitats, including prairies, grasslands, meadows, woodlands, urban areas, and agricultural areas where host bumble bee nests are present. This species has historically occurred in Nebraska and Iowa, but no extant populations are known to occur in these states at present. The last confirmed sighting of SCBB in the contiguous United States was in Oregon in 2016 (USFWS 2024e).

The Project component areas in which SCBB is listed as having potential to occur are primarily composed of agricultural lands with limited woodlands and grasslands, as well as highly disturbed areas associated with Northern's existing facilities. Additionally, these areas are located along the far eastern edge of the SCBB's historical range. Given the disturbed nature of these areas and the absence of recent SCBB records in either state, the SCBB does not occur within the Project areas. Therefore, Northern has determined that the Project will have no effect on the SCBB.

Western regal fritillary

Western regal fritillary requires large, intact grasslands at a landscape scale, with violets for larvae; nectar sources for adults; and warm season, native warm-season bunch grasses for shelter at all life stages. The grasslands need to be large and contiguous, generally more than 3.86 square miles,

and be maintained by periodic disturbances. Violet species (*Viola* sp.) are required as the exclusive source of larval forage (USFWS 2026f). The western regal fritillary was listed as having potential to occur within all of the Nebraska Project components, and none of the Iowa components, except for the Ogden compressor station. While these Project components are within the known range of the western regal fritillary, no suitable host plant, prairie violet (*Viola pedatifida*), or individual species were observed during the 2025 field investigations. Therefore, the western regal fritillary is unlikely to occur within the Project area.

The Project was determined to have no effect on the continued existence of the western regal fritillary. Additionally, the western regal fritillary is proposed for listing as threatened by the USFWS with a 4(d) Rule.

Monarch butterfly

The monarch butterfly is a migratory butterfly that exists in two main populations within the United States divided by the Rocky Mountains: the eastern population that overwinters in the mountains of Mexico, and the western population that overwinters along the southern pacific coast of California (USDA 2026). Monarch butterflies are a widespread species found in fields, prairies, savannahs, and most places where milkweed (*Asclepias* spp.), their host plant, occurs throughout the United States and southern Canada. This species generally occurs in areas with high densities of nectar sources, preferably those of native prairies. During late summer and migration, adults use nectar species such as black-eyed Susan (*Rudbeckia hirta*), narrow-leaved coneflower (*Echinacea angustifolia*), and rough blazing star (*Liatris aspera*). The presence of milkweed is required for the survival of caterpillars, as it is the only plant on which they can feed (National Wildlife Federation undated).

Given the minimal field observations of the species, nectar sources, and milkweed, as well as the overall disturbed nature of the Project area, the monarch butterfly is unlikely to occur within the Project area.

Northern is committed to the restoration and preservation of pollinator habitat. Northern joined the USFWS Nationwide Monarch Butterfly Candidate Conservation Agreement on Energy and Transportation Lands in 2020. As part of this Project, Northern will utilize pollinator friendly plant seed mixtures within Northern owned properties, where feasible. Northern will offer landowners the option of utilizing pollinator friendly seed mixtures on privately owned lands within the Project workspaces where temporary impacts occur. Northern has determined the Project will not jeopardize the continued existence of the monarch butterfly.

State Special Status Species Occurring in the Vicinity of the Project

The IDNR state species review did not identify any state-listed species records or significant natural communities within Iowa Project components. In addition to the 10 federally listed species, there are 4 state-listed species known to occur or potentially occur within the Project in Nebraska. These state-listed species and Project components that include their habitats are listed below and are presented in Appendix 3E, Table 3.4-1.

Omaha 3rd branch line (Cass and Sarpy Counties, Nebraska)

- Interior least tern (*Sternula antillarum athalassos*)
- Lake sturgeon (*Acipenser fulvescens*)
- Sturgeon chub (*Macrhybopsis gelida*)

Beatrice compressor station (Gage County, Nebraska)

- Western massasauga (*Sistrurus tergeminus*)

Western massasauga

Western massasaugas use grassland habitats, such as tallgrass prairie and grassy fields adjacent to moist areas, such as marshland, wet prairies, and flood plains. Western massasaugas exclusively rely on crayfish burrows for hibernation.

The Beatrice compressor station consists primarily of impervious surfaces and highly disturbed vegetation. Where grass is present, the area is routinely maintained and mowed; therefore, this species is unlikely to occur within the Project area. NGPC correspondence confirmed that the Project will have no impact on this species.

Interior least tern

The interior least tern utilizes sparsely vegetated sandbars on rivers. These birds nest, raise young, and forage on these barren river sandbars. These birds typically breed in Nebraska between the dates of May 1 - Aug 15. Young terns begin leaving the breeding area in late August with migration from the area complete by early September.

Although the interior least tern was not identified by the USFWS as having potential to occur within the Project vicinity and no designated critical habitat is present, the species is listed by the NGPC as a state-endangered bird with the potential to occur along the Platte River. Northern identified potentially suitable habitat present along the north bank of the Platte River within the Omaha 3rd branch line loop.

The Platte River will be crossed using HDD, with all construction workspaces located more than 200 feet from the riverbank (HDD entry/exit pits are approximately 0.2 mile from north bank and more than 0.30 mile from the south bank). No in-stream work or dredging is proposed. Northern will implement BMPs in accordance with FERC's Plan and its Procedures, the Project-specific HDD Plan, and the SPCC Plan to minimize erosion, sedimentation, and the potential for inadvertent releases.

Because construction for the Omaha 3rd branch line loop may occur during the nesting period, April 15 to August 15, Northern will conduct surveys using the *Piping Plover and Interior Least Tern Survey Protocol* developed by the NGPC and USFWS (NPGC 2025), which is described above in the piping plover section.

By implementing the proposed minimization measures, and as the survey corridor is not within any federally designated critical habitat for the interior least tern, Northern will minimize impacts to the interior least tern, as a result of the Omaha 3rd branch line loop. Northern will coordinate with the NGPC to confirm its determination on this species. Northern will provide documentation to FERC in a supplemental filing.

Lake sturgeon

The lake sturgeon can be found in the Mississippi and St. Lawrence River drainages north into Canada but have rarely been collected from the lower Platte River and is uncommon in the Missouri River bordering Nebraska.

The lake sturgeon has the potential to occur within the Platte River. The Project will cross the Platte River HDD, and no instream work or dredging is proposed. Northern will implement BMPs

in accordance with FERC's Plan and its Procedures, the HDD Plan, and the SPCC Plan to minimize erosion, sedimentation, and the potential for inadvertent releases. Based on the use of HDD and implementation of avoidance and minimization measures, impacts on the lake sturgeon are not anticipated. Northern will submit a follow-up review form to the NGPC to confirm its determination for this species.

Sturgeon chub

The sturgeon chub is found in the Mississippi and Missouri Rivers along with several major tributaries. In Nebraska, the sturgeon chub is found in the Missouri River and lower portions of the Platte River. This species prefers fast, free flowing rivers with high turbidity and low visibility.

The sturgeon chub has the potential to occur along the Omaha 3rd branch line loop where the Project crosses the Platte River. The Platte River will be crossed using HDD, and no instream work or dredging is proposed. Northern will implement BMPs in accordance with FERC's Plan and its Procedures, the HDD Plan, and the SPCC Plan to minimize erosion, sedimentation, and the potential for inadvertent releases. Based on the use of HDD and implementation of avoidance and minimization measures, impacts on the sturgeon chub are not anticipated. Northern will submit a follow-up review form to the NGPC to confirm its determination for this species.

3.4.2 Construction and Operation Impacts

The USFWS identified the NLEB and tricolored bat as having potential to occur along two of the Project components in Nebraska. To avoid incidental take, Northern will avoid tree clearing during the bats' pupping season (May 15 through July 31). Tree removal is estimated at approximately 0.88 acre, including about 0.19 acre of trimming or hand clearing associated with the HDD travel lane south of the Platte River.

Tree clearing on the Omaha 3rd branch line loop is proposed to occur during the summer occupancy period in August/September 2027. Based on the tree clearing timing and conservation measures proposed, it is anticipated that the Project will result in no effect or not likely to adversely affect determination obtained from the USFWS on the NLEB and tricolored bat. Northern has submitted a technical assistance request to USFWS for concurrence of this determination. Northern will provide the response from USFWS to FERC in a supplemental filing.

Tree clearing is planned for fall/winter 2027 along the NPPD Princeton Road power station branch outside of the summer occupancy and pup windows for the listed bat species. No other tree clearing is required for the remaining Project components.

The Omaha 3rd branch line loop crosses the Platte River, where potentially suitable shoreline habitat for the piping plover and interior least tern is present. The Platte River will be crossed using HDD, with planned workspaces located approximately 250 feet from the riverbank. No in-stream work or dredging is proposed. Northern will implement BMPs in accordance with FERC's Plan and its Procedures, the HDD Plan, and the SPCC Plan to minimize indirect impacts from runoff or inadvertent releases. Northern also will conduct preconstruction surveys for piping plover and interior least tern nests within 0.25 mile of the Project area at the Platte River crossing. If an active nest is identified, work will cease and Northern will coordinate with the USFWS and NGPC. Based on these measures, the Project may affect, but is not likely to adversely affect, the piping plover. Due to HDD installation and implementation of protective measures at the Platte River crossing, the Project is not anticipated to impact the interior least tern, lake sturgeon or sturgeon chub.

The Platte River will be crossed beneath the riverbed via HDD, and no direct impacts on aquatic habitat are anticipated. BMPs will be implemented to avoid or minimize indirect effects from construction runoff or inadvertent releases. Accordingly, the Project is not likely to adversely affect the pallid sturgeon. Northern will confirm this determination with the USFWS and provide documentation to FERC in a supplemental filing.

A desktop review was completed to evaluate the presence of suitable habitat for the western prairie fringed orchid along the Omaha 3rd branch line loop, NPPD Princeton Road power station branch line, and the Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve Setting 5. Potentially suitable western prairie fringed orchid habitat was identified between MP 6.91 and MP 7.40 along the Omaha 3rd branch line loop. Northern will coordinate with USFWS and NGPC and complete plant surveys or habitat verification in the summer of 2026. The results of the field work will be provided to USFWS and NGPC for concurrence of a determination. No other Project components were identified as containing potentially suitable western prairie fringed orchid habitat. Depending on the results of the study and USFWS response, Northern will implement Project design changes or mitigative actions in order to receive a no effect or not likely to adversely affect determination on this species.

The Project will have no effect on other federally listed species identified as potentially occurring within the Project area. No designated USFWS critical habitat or protected species areas are crossed by the Project.

The Project also will have no effect to the Nebraska state-listed western massasauga.

Environmental reviews for Iowa state listed species were received by the IDNR on March 10, 2026. The IDNR state species review did not identify any state-listed species records or significant natural communities within Iowa Project components; therefore, no further consultation with IDNR regarding state-protected species is required.

During construction, limited direct impacts on special status wildlife could include incidental mortality of eggs, nests, or less mobile individuals. Indirect impacts may include temporary increases in noise, dust, and minor habitat disturbance. These effects will be temporary, and mobile species are expected to return following construction and restoration. Adherence to FERC's Plan and Northern's Procedures will avoid, minimize, and mitigate potential indirect impacts during construction and operation.

MBTA Protected Species

Migratory birds are protected under the MBTA (16 USC §§ 703-711), which prohibits the taking of any migratory bird, or a part, nest, or eggs of any such bird, except under the terms of a valid permit issued pursuant to federal regulations. Bald and golden eagles are additionally protected under the BGEPA (16 USC §§ 668-668d). Executive Order 13186 (66 Fed. Reg. 3853) directs federal agencies to identify where unintentional take is likely to have a measurable negative effect on migratory bird populations and to avoid or minimize adverse effects to migratory birds through enhanced collaboration with the USFWS. Executive Order 13186 states that emphasis should be placed on species of concern, priority habitats, and key risk factors, and that particular focus should be given to addressing population-level impacts. On March 30, 2011, the USFWS and FERC entered into a MOU that focuses on avoiding or minimizing adverse effects to migratory birds and strengthening migratory bird conservation through enhanced collaboration between the two agencies. This voluntary MOU does not waive legal requirements under the MBTA, BGEPA,

ESA, Federal Power Act, Natural Gas Act, or any other statutes and does not authorize the take of migratory birds.

In accordance with Executive Order 13186 and the MOU, Northern has identified BCC that may occur within the Project. Northern consulted with the USFWS concerning T&E migratory bird species potentially occurring within the Project. The species listed as BCC, released most recently in 2021, are listed in Table 3.4-2, and include species protected under the MBTA (and some non-MBTA-protected species) that represent the agency’s highest conservation priorities (USFWS 2026c, NABCI 2026). BCRs are geographically based subsets of the large BCC list.

The Project is located in the Prairie Potholes (BCR 11), Eastern Tallgrass Prairie (BCR 22), and Central Mixed Grass Prairie (BCR 19). Northern also researched IBAs in vicinity to the Project. IBAs are discrete sites that provide essential habitat for one or more bird species and include habitat for breeding, wintering, and/or migrating birds (Nebraska Audubon 2025, Iowa Audubon 2025). The NPPD Princeton Road power station branch line crosses the Lancaster County Saline Wetlands IBA from approximately MP 14.20 to the NPPD Princeton Road power station meter station. The wetlands associated with the Lancaster County Saline Wetlands IBA are unique in that they are limited to swales and depressions in the floodplains of Salt Creek and its tributaries in Lancaster and Saunders counties. No wetlands were identified within MP 14.20 to the NPPD Princeton Road power station meter station during the 2025 field investigations, and the stream located along SW 42nd Street is channelized within the Project area. The remaining Iowa and Nebraska components do not overlap an IBA. Therefore, impacts on IBAs are not anticipated as a result of the Project.

Table 3.4-2. Birds of Conservation Concern Potentially Occurring in the Project Areas

BCR	Listed Birds	
	Common Name	Scientific Name
22 (Eastern Tallgrass Prairie)	American golden-plover (nb) Bald eagle Black-billed cuckoo Chimney swift Eastern whip-poor-will Grasshopper sparrow Hudsonian godwit (nb) Kentucky warbler Lesser yellowlegs (nb) Pectoral sandpiper (nb) Prairie loggerhead shrike Red-headed woodpecker Rusty blackbird (nb) Semipalmated sandpiper (nb) Upland sandpiper Wood thrush	<i>Pluvialis dominica</i> <i>Haliaeetus leucocephalus</i> <i>Coccyzus erythrophthalmus</i> <i>Chaetura pelagica</i> <i>Antrostomus vociferus</i> <i>Ammodramus savannarum perpallidus</i> <i>Limosa haemastica</i> <i>Geothlypis formosa</i> <i>Tringa flavipes</i> <i>Calidris melanotos</i> <i>Lanius ludovicianus excubitorides</i> <i>Melanerpes erythrocephalus</i> <i>Euphagus carolinus</i> <i>Calidris pusilla</i> <i>Bartramia longicauda</i> <i>Hylocichla mustelina</i>
11 (Prairie Potholes)	American golden-plover (nb) Bald eagle Black tern Black-billed cuckoo Bobolink Chimney swift Franklin’s gull Golden-winged warbler Grasshopper sparrow Henslow’s sparrow	<i>Pluvialis dominica</i> <i>Haliaeetus leucocephalus</i> <i>Chlidonias niger surinamenis</i> <i>Coccyzus erythrophthalmus</i> <i>Dolichonyx oryzivorus</i> <i>Chaetura pelagica</i> <i>Leucophaeus pipixcan</i> <i>Vermivore chrysoptera</i> <i>Ammodramus savannarum perpallidus</i> <i>Centronyx henslowii</i>

BCR	Listed Birds	
	Common Name	Scientific Name
	Hudsonian godwit (nb) Le Conte’s sparrow Lesser yellowlegs (nb) Long-eared owl Marbled godwit Northern harrier Pectoral sandpiper (nb) Red-headed woodpecker Ruddy turnstone (nb) Short-billed dowitcher (nb) Western grebe Willet	<i>Limosa haemastica</i> <i>Ammospiza leconteii</i> <i>Tringa flavipes</i> <i>Asio otus</i> <i>Limosa fedoa</i> <i>Circus hudsonius</i> <i>Calodris melanotos</i> <i>Melanerpes erythrocephalus</i> <i>Arenaria interpres morinella</i> <i>Limnodromus griseus</i> <i>Aechmophorus occidentalis</i> <i>Tringa semipalmata</i>
19 (Central Mixed Grass Prairie)	Bald eagle Chimney swift Red-headed woodpecker	<i>Haliaeetus leucocephalus</i> <i>Chaetura pelagica</i> <i>Melanerpes erythrocephalus</i>

(nb) non-breeding in this BCR

A variety of migratory bird species may occur seasonally within the vicinity of the Project because these areas are located within the Mississippi Flyway and Central Flyway. Many species of migratory birds such as waterfowl, passerines, and raptors use the flyways during spring and fall migration between the Gulf of Mexico and central Canada. All of these species use open land and wetland areas and could be sensitive to project construction activities.

The nesting/breeding season for migratory birds in Iowa and Nebraska is generally from April through August with the exception of a few outlying species such as bald eagle, which breeds between December 1 and August 31 in Iowa and October 15 and August 31 in Nebraska, northern harrier between April 1 and September 15, the red-headed woodpecker between May 10 and September 10, the black-billed cuckoo between May 15 and October 10, and the chimney swift between March 15 and August 25. Project activities during this timeframe could result in short-term disturbance of migratory bird habitat, causing birds present in the Project area to relocate temporarily during periods of active construction and human activity. Depending on the season, construction also could disrupt bird courting or nesting, including destruction of nests, eggs, and chicks within the construction work area. The Project is located primarily in actively cultivated agricultural lands, developed areas, and open land/existing pipeline ROW; therefore, the potential for the Projects to adversely affect important migratory nesting birds or foraging habitats will be low.

A variety of migratory bird species may occur seasonally within the Project area. The species most likely to be affected are those that are sensitive to forest fragmentation. Northern plans to conduct the majority of tree clearing activities on the Project during the non-breeding season for the majority of the migratory bird species identified as potentially occurring within each Project component, to minimize impacts on these species. Additionally, some migratory bird species use open habitats for nesting and will be unable to nest in active project areas during construction.

Construction of the Project has the potential to impact birds protected under the MBTA. Under the MBTA, construction activities in grassland, roadsides, wetland, riparian, shrubland, or woodland habitats, and construction activities that occur on bridges or culverts that would otherwise result in the taking of migratory birds, eggs, young, and/or active nests, should be avoided. Although the provisions of the MBTA are applicable throughout the entire year, most migratory bird nesting activity in Iowa and Nebraska occurs April 1 to August 31. Northern plans to complete tree

clearing activities for the Omaha 3rd branch line loop late August or September 2027 and fall/winter 2027 for the NPPD Princeton Road power station branch line, mostly outside the primary nesting season. Tree clearing will not be required for the other Project components. All Project components are scheduled to begin construction June 2027¹. Northern will attempt to limit removal or impacts on vegetation during the primary nesting season of breeding birds. If construction work cannot be avoided during the peak breeding season, Northern will have a biologist conduct a pre-construction nest survey for breeding birds within affected workspaces for both Projects. The nest survey will determine the absence or presence of breeding birds and their nests. Pre-construction nest surveys will be completed according to the following procedures.

- No more than seven days before construction activities commence, pre-construction nest surveys for migratory birds will be completed by a qualified avian biologist. The area surveyed will include the proposed workspaces or areas where potentially suitable habitat has been identified.
- If an occupied (non-eagle) raptor nest is observed during the survey, construction activities will not be permitted within 100-foot buffer of it to avoid incidental take of protected raptor species. Furthermore, construction activities will not be permitted within a 660-foot buffer of any eagle nest site during the breeding season or until the fledglings have left the area. Northern will complete consultation with the USFWS, NDWEE and/or the IDNR if an active raptor nest is observed, as required.
- If a nest, other than a raptor nest, is observed during the survey, construction activities will not be permitted within a 15- to 30-foot buffer of the nest depending on the species and vertical offset from the nest.
- Upon completion of the nest surveys, the survey results will be submitted to the USFWS, NDWEE and/or the IDNR, as appropriate. If breeding birds are not present, construction can proceed with no restrictions. If breeding birds or active nests are present, additional consultation will be completed, as required.

Nest surveys for migratory bird surveys will be conducted prior to any clearing or construction activity; therefore, the Project will have no effect on nesting migratory birds of concern.

To assess the potential for impact on raptors, Northern's field surveys for the Project area late February 2026 included raptor nest surveys within Project ESBs and within 1,000 feet of the ESBs. Multiple red-tailed hawks, Cooper's hawks, barred owls, American kestrels, and bald eagles were observed within or in the vicinity of the Project. Numerous potential non-eagle raptor nests were identified for the Project (see Table 3.2-1 in Appendix 3E), but none of these were active at the time of the site visit. Three bald eagle nests were identified in the vicinity of the Omaha 3rd branch line ESB, but all three were located over 1,000 feet from the ESB, outside of the 660-foot restricted boundary established by the USFWS. Northern plans to complete tree clearing activities for the Omaha 3rd branch line loop late August or September 2027 and fall/winter 2027 for the NPPD Princeton Road power station branch line, mostly outside the primary nesting season. Tree clearing will not be required for the other Project components. Pipeline construction will commence June 2027; Northern will conduct pre-construction bird surveys within the construction areas

¹Based on contractor availability, FERC approval, and in accordance with any applicable permits, construction of the Project could begin earlier.

immediately prior to construction. If any nests are observed, Northern will contact the USFWS, IDNR and/or NDWEE to determine any necessary avoidance or mitigation measures.

Northern will consult with the USFWS Illinois-Iowa Ecological Services Field Office and the Nebraska Ecological Services Field Office regarding impacts on migratory birds, as necessary. Due to the use of pre-construction nesting bird surveys, which will minimize any potential effect of the Project on nesting migratory birds, Northern determined the Project will have no effect on birds protected under the MBTA. The USFWS does not provide concurrence with no effect determination for migratory birds, and as such, a written response may not be provided from the agency, unless direct consultation is required as a result from Project specific-impacts related to intentional or incidental take of a protected species.

3.4.3 Agency Consultation

Northern initiated consultation with the USFWS, NGPC, and IDNR to identify T&E species and sensitive ecological resources that may occur within the Project area. Consultation was conducted using the USFWS IPaC Environmental Conservation Online System, the NGPC CERT and associated environmental review reports, and the IDNR PERMT. Official IPaC determinations and Nebraska environmental review reports were obtained February 2026. IDNR PERMT response indicated there are no state-listed species of concern in the Iowa project areas.

Additional consultation with the USFWS is ongoing due to planned tree removal during the active season for the northern long-eared and tricolored bats, the presence of potentially suitable habitat for the piping plover along the north bank of the Platte River crossing and the need to complete an effective determination for the western prairie fringed orchid. Northern also will complete follow-up coordination with the NGPC for the Project potential to affect Nebraska state-listed species. Agency correspondences are provided in Appendix 3B.

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Appendix 3A

Noxious Weed Control Plan



Noxious Weed Control Plan

Central Mainline Corridor Expansion Project

April 2026

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1.0 GENERAL PROJECT DESCRIPTION

Northern Natural Gas (Northern) is planning construction of the Central Mainline Corridor Expansion Project (Project) between 2027 and 2028 in Nebraska and Iowa. The proposed facilities include:

- Install 9.03 miles of 20-inch-diameter Omaha 3rd branch line loop;
- Install 14.64 miles of 30-inch-diameter NPPD Princeton Road power station branch line;
- Extend 2.48 miles extension of the 20-inch-diameter Des Moines C-line;
- Uprate of the 20-inch-diameter Des Moines C-line south loop
- Install new compressor station near Clarion, Iowa;
- Modifications at Beatrice, Nebraska, compressor station allowing bidirectional flow;
- Modifications at Guthrie Center, Iowa, compressor station allowing bidirectional flow;
- Modifications at Oakland, Iowa, compressor station allowing bidirectional flow;
- Modifications at Ogden, Iowa, compressor station allowing bidirectional flow;
- Modifications at Palmyra, Nebraska, compressor station allowing additional flow to an existing pipeline;
- Install NPPD Princeton Road power station meter station;
- Install aboveground facilities including a launcher, receiver, tie-in valve settings, and uprate ancillary equipment.

Installation and removal of appurtenant facilities include:

- New compressor station
- New launchers, receivers, new valves and piping inside existing facility
- New unregulated meter station
- Removal of short sections of pipe to accommodate installation activities
- Removal of an odorizer tank and install a larger odorizer tank
- Relocation of one receiver facility
- Removal of check valve, control valves and associated pipe at five compressor stations to accommodate bid-directional flow

2.0 PURPOSE

The purpose of this Noxious Weed Control Plan (Plan) is to facilitate conformance with Nebraska and Iowa Noxious Weed Law promulgated by Nebraska Title 25, Chapter 10, Nebraska Administrative Code – Noxious Weed Regulations and Iowa State Code Chapter 317. This Plan provides measures to be used to prevent the spread of the existing noxious weed populations identified within the Project areas. This Plan also provides measures to be used in the prevention and control of invasion of new noxious weed species or new populations within the Project areas.

Northern will request written review and approval from FERC in event the construction contractor proposes an alternate noxious weed control measure not included in this Plan.

3.0 FEDERAL, STATE, AND COUNTY WEED LISTS

Lists of noxious and invasive weeds that may potentially occur within the Project were obtained by review of federal, state, and local sources. The federal list is maintained on the U.S. Department of Agriculture’s Introduced, Invasive, and Noxious Plants database. The state noxious weed list is

maintained by the Nebraska Department of Agriculture’s Noxious Weed Program and the Iowa Department of Agriculture & Land Stewardship.

In Nebraska, noxious weeds can be declared noxious by the Director of the Nebraska Department of Agriculture when a specific species is determined to pose a threat to the economic, social or aesthetic well-being of the residents of Nebraska. The Noxious Weed Control Act is administered at the county level but it is the duty of the landowner to control noxious weeds that are identified on their land. In Iowa, noxious weeds can be designated on the primary or secondary noxious weed list and are administered at the county level. If the landowner is notified by the county weed commissioner of noxious weeds they must be destroyed and if the landowner fails to do so the county can enter the property to destroy the noxious weed population after proper notification. Iowa also maintains a list of prohibited plant species that no person can import, sell, offer for sale or distribute within the state in any form including the seeds.

Results of the review of these databases are presented in the table below.

Table 1 - Federal, State and Local Noxious Weed List

Common name	Scientific name
<i>Federal Noxious Weeds</i>	
Dodder	<i>Cuscuta spp.</i>
British yellowhead	<i>Inula britannica</i>
Broomrape	<i>Orobanche spp.</i>
Giant hogweed	<i>Heracleum</i>
Fireweed	<i>Senecio</i>
Cattail grass	<i>Setaria pumila</i>
<i>Nebraska Noxious Weed List</i>	
Canada thistle	<i>Cirsium arvense</i>
Musk thistle	<i>Carduus nutans</i>
Plumeless thistle	<i>Carduus acanthoides</i>
Leafy spurge	<i>Euphorbia esula</i>
Diffuse knapweed	<i>Centaurea diffusa</i>
Spotted knapweed	<i>Centaurea maculosa</i>
Purple loosestrife	<i>Lythrum salicaria</i>
Salt cedar	<i>Tamarix ramosissima</i>
Common reed	<i>Phragmites spp.</i>
Japanese knotweed	<i>Reynoutria japonica</i>
Giant knotweed	<i>Reynoutria sachalinensis</i>
Sericea Lespedeza	<i>Lespedeza cuneata</i>
<i>Iowa Department of Agriculture & Land Stewardship Primary Noxious Weeds</i>	
Russian knapweed	<i>Acroptilon repens</i>
Palmer amaranth	<i>Amaranthus palmeri</i>
Perennial pepper-grass	<i>Cardaria draba</i>
Canada thistle	<i>Cirsium arvense</i>
Bull thistle	<i>Cirsium vulgare</i>
All other species of thistles	<i>belonging in the genera of Cirsium and Carduus</i>
European morning glory or field bindweed	<i>Convolvulus arvensis</i>
Quack grass	<i>Elymus repens</i>
Leafy spurge	<i>Euphorbia esula</i>

Common name	Scientific name
Horse nettle	<i>Solanum carolinense</i>
Perennial sow thistle	<i>Sonchus arvensis</i>
Buckthorn	<i>Rhamnus</i> spp., not to include <i>rangula alnus</i> , syn. <i>Rhamnus frangula</i>
<i>Iowa Department of Agriculture & Land Stewardship Secondary Noxious Weeds</i>	
Butterprint	<i>Abutilon theophrasti</i>
Poison hemlock	<i>Conium maculatum</i>
Wild carrot	<i>Daucus carota</i>
Teasel	<i>Dipsacus</i> spp.
Wild sunflower	wild strain of <i>Helianthus annuus</i> L.)
Buckhorn	<i>Plantago lanceolata</i>
Multiflora rose	<i>Rosa multiflora</i>
Sheep sorrel	<i>Rumex acetosella</i>
Smooth dock	<i>Rumex altissimus</i>
Sour dock	<i>Rumex crispus</i>
Wild mustard	<i>Sinapis arvensis</i>
Shattercane	<i>Sorghum bicolor</i>
Puncture vine	<i>Tribulus terrestris</i>
Cocklebur	<i>Xanthium strumarium</i>
<i>Iowa Department of Agriculture & Land Stewardship Prohibited Plants</i>	
Garlic mustard	<i>Alliaria petiolata</i>
Palmer amaranth	<i>Amaranthus palmeri</i>
Oriental bittersweet	<i>Celastrus orbiculatus</i>
Teasel	<i>Dipsacus</i>
Japanese knotweed	<i>Fallopia japonica</i>
Japanese hop	<i>Humulus japonicus</i>
Purple loosestrife	<i>Lythrum salicaria &virgatum</i>
Multiflora rose	<i>Rosa multiflora</i>

3.1 NOXIOUS WEED LOCATIONS

Field surveys conducted for the Project components environmental survey boundaries (ESBs) in 2025 identified phragmites/common reed (*Phragmites australis* ssp. *Australis*). Northern's Project is not anticipated to impact the noxious weed populations identified in Table 2 below. Northern and its contractors will implement the measures discussed in Sections 4.1 and 4.3, as necessary, to control the spread of these identified populations.

No noxious weeds were observed within the planned project workspaces during the field surveys. The locations where noxious weeds were observed within the Project's ESBs are indicated in Table 2 by nearest milepost & nearest workspace identifier. Figure 1 depicts the location of the noxious weed occurrences within the ESBs. Consequently, if modifications to planned workspaces are required, the known locations of these noxious weeds can be readily integrated into revised siting and impact avoidance strategies.

Table 2 – Noxious Weed Species Observed Within the ESB

Project Component	Nearest MP/General Location	Noxious Species Observed
Omaha 3rd branch line loop	Near MP 8.3 approximately 330 feet from OMA-ETWS-047	phragmites/common reed
Omaha 3rd branch line loop	Near MP 9.0 approximately 240 feet from OMA-ETWS-054	phragmites/common reed

4.0 MANAGEMENT GOALS

4.1 PRE-CONSTRUCTION AND CONSTRUCTION WEED CONTROL

A pre-construction meeting(s) will be held to provide the Project contractors with information and training regarding noxious weed identification and management. Contractors will be provided information about measures to be taken to prevent the spread of noxious weeds in uncontaminated areas and about controlling the proliferation/spread of noxious weed populations already present in the Project areas. Qualified environmental inspectors (EIs) will be used to conduct on-site monitoring before and during construction.

Noxious weed control measures will be implemented in accordance with existing regulations and jurisdictional land management agencies or landowner agreements. Treatment methods will be based on species-specific and area-specific conditions (e.g., proximity to water, wetlands, riparian areas or agricultural areas) and time of year. All noxious weed areas within the workspace must be addressed by one or a combination of the following options: avoidance, personnel control, chemical treatment, or mechanical controls. If Northern’s contractor proposes an alternate method, Northern’s EI and construction team must approve the method prior to use.

Avoidance and Personnel Control

Wherever possible, the contractor will avoid the use of access roads, temporary workspace (TWS), extra temporary workspace (ETWS) and staging areas within noxious weed areas. The contractor will install silt fence around the noxious weed areas and erect signage warning personnel to avoid the areas. If avoidance of a noxious weed area is not possible, the contractor will control access of personnel and equipment through the noxious weed area to only those that are essential for construction.

Chemical Treatment

The use of chemical treatments is not permitted within 100 feet of wetlands or waterways. Northern’s EIs or right of way personnel will work with landowners to get approval for specific herbicide product if contractor determines that chemical treatment may be used. Northern will use a licensed herbicide applicator to conduct the spraying.

Mechanical Methods

Mechanical methods may be utilized in lieu of or in combination with herbicide treatment for select locations. Potential mechanical methods include:

Mowing and Physical Removal

Mechanical methods of weed control may include mowing, discing, and hand pulling small, localized and/or isolated populations of noxious weeds. Access roads, TWS, ETWS and staging areas that contain noxious weeds may be mowed prior to equipment access. The mower will be cleaned prior

to leaving the noxious weed area. As an additional measure, Northern may elect to treat the noxious weed areas with an herbicide. There will be no discing in native habitat areas.

Soil Handling

Prior to excavation activities, silt fence will be installed at the boundaries of the area containing noxious weeds. The fence will be removed as part of final clean up. Soil excavated from the noxious weeds area will not be stored outside of the invasive plants area. The construction contractor will stockpile cleared noxious weeds and salvaged topsoil adjacent to the area from which they were stripped to prevent the transport of noxious weed seeds, roots, or rhizomes with the soil. Stockpiled soil from noxious weed areas will be marked with signage and will be returned to the areas from which they were stripped. Soil and vegetation from noxious weed areas will not be moved outside of the identified and marked noxious weed infestation areas. Construction equipment will not be allowed to work in or on these stockpiles. All straw or hay bales and mulch used to control sedimentation will be certified weed free and obtained from state approved sources.

In areas where full topsoil stripping does not occur (e.g., wetlands, access roads, and ETWS), Northern will install a layer of geotextile fabric, or a functional equivalent, at the boundaries of areas containing noxious weeds. Then, a layer of construction mats will be installed. The contractor will utilize the mat road to traverse the noxious weed area, limiting direct contact with the area. The mats and fabric will be removed as part of final clean up. The mats will be sprayed and the geotextile fabric will be disposed of at a landfill.

Equipment Wash Stations

Northern's contractor will place equipment wash stations along the Project components, as needed, to best minimize the spread of noxious weeds. Wash stations will be wholly within the workspace identified for the Project. The contractor will implement the following controls during the use of equipment wash stations:

- Construction equipment and vehicles that are used to move vegetation and topsoil during clearing and restoration phases of the Project that come into contact with vegetation or disturbed soil in areas where noxious weeds have been identified will be cleaned before being allowed to work in non-noxious weed areas of the site. Equipment traveling out of noxious weed areas will be cleaned free of soil and plant debris prior to proceeding into an area without invasive plants. Water for the wash stations will be obtained from municipal sources. Water from the equipment wash stations will be collected and transported off-site to an appropriate disposal facility. A typical drawing of the equipment wash station is provided as Figure 2.
- All equipment entering or leaving the noxious weed areas will be logged with the date and time of entry, exit and confirmation that the equipment was cleaned.
- All ground disturbing equipment will be clean and free of soil or plant debris prior to arriving onsite. The on-site EI will inspect all equipment upon arrival and maintain a log of such inspections. In the event that equipment arrives in a manner not consistent with the above requirement(s), the EI will direct the contractor to clean the equipment at an off-site location prior to its use on the Project.

Boot Cleaning Stations

Northern will HDD wetlands and waterbodies for the Project. If the HDD travel lane will traverse a noxious weed area, Northern's EIs will establish a boot cleaning area for the pedestrian traffic that traverses the noxious weed areas. Boot cleaning stations should be installed at boundaries of Project workspaces where HDDs or conventional bores cross noxious weed populations. All personnel

entering and leaving a noxious weed area on foot must use the boot cleaning stations and record their use of the cleaning station. A typical drawing of a boot cleaning station is provided as Figure 3. Any equipment that enters a noxious weed area due to an inadvertent release of drilling mud will follow the procedures for equipment wash stations.

4.2 AQUATIC NUISANCE SPECIES CONTROL

Any equipment to be used in water must follow precautions to avoid the introduction of aquatic nuisance species (ANS) into Project areas. Best management practices include, but are not limited to:

- Removing all plants, animals, or fragments of plant or animals prior to equipment arriving onsite
- Draining all water from motors, pumps, bilges, or other containers; if the equipment has been drained for less than seven days prior to arrival on site, a chemical or hot water treatment sufficient to kill ANS organisms will be utilized
- Visually inspecting equipment to detect any presence of ANS prior to arriving onsite and after each use in an aquatic environment
- Cleaning and inspecting transporting trailers and trucks

4.3 RESTORATION WEED CONTROL

Following construction, Northern's contractor will restore the project areas per landowner or land managing agency requirements using native seeding and mulching as applicable. Northern's contractor will use proposed specifications for mulch and seed to ensure noxious weeds are not brought in through contaminated mulch or seed. Certified weed-free mulch and seed will be applied where practicable or required.

Restoration specific best management practices include:

- Revegetate disturbed areas as soon as possible. Revegetation includes topsoil replacement, planting, seeding, fertilizing, and weed free mulching, as necessary
- Seeding will be conducted on disturbed areas that have reached final grade or that will remain undisturbed for 30 days
- Use seed and other plant materials that have been certified as weed free.
- Use native materials where appropriate and feasible
- Treat weeds adjacent to newly seeded areas prior to planting and treat planted areas for weeds during the first growing season
- Non-residual herbicide such as glyphosate will be used; no herbicide will be used within 100 feet of any wetland/waterbody area

4.4 OPERATION WEED CONTROL – THREE-YEAR PLAN

Northern will complete post-construction monitoring of noxious weed areas. This monitoring will include inspection of existing weed populations and identification of any new weed populations on or immediately adjacent to the Project components. Any new populations of noxious weeds located within the project's ground-disturbance area would be considered a result of construction activities and would be controlled and treated accordingly.

First Year Weed Control Objective:

- 1) Identify local species of noxious weeds
- 2) Identify weed control options and establish a plan
- 3) Identify weed control contractor licensed in herbicide application and establish contract
- 4) Apply competitive native grass seed to prevent weeds
- 5) Mow, spray, and monitor weed control program

Second Year Weed Control Objective:

- 1) Renew weed control contract and perform facility inspection with contractor
- 2) Apply native grass seed to thin areas, where required
- 3) Mow, spray, and monitor weed control program

Third Year Weed Control Objective:

- 1) Renew weed control contract and perform facility inspection with contractor
- 2) Apply native grass seed to thin areas, if required
- 3) Mow, spray, and monitor weed control program

Figure 1
Noxious Weed Locations

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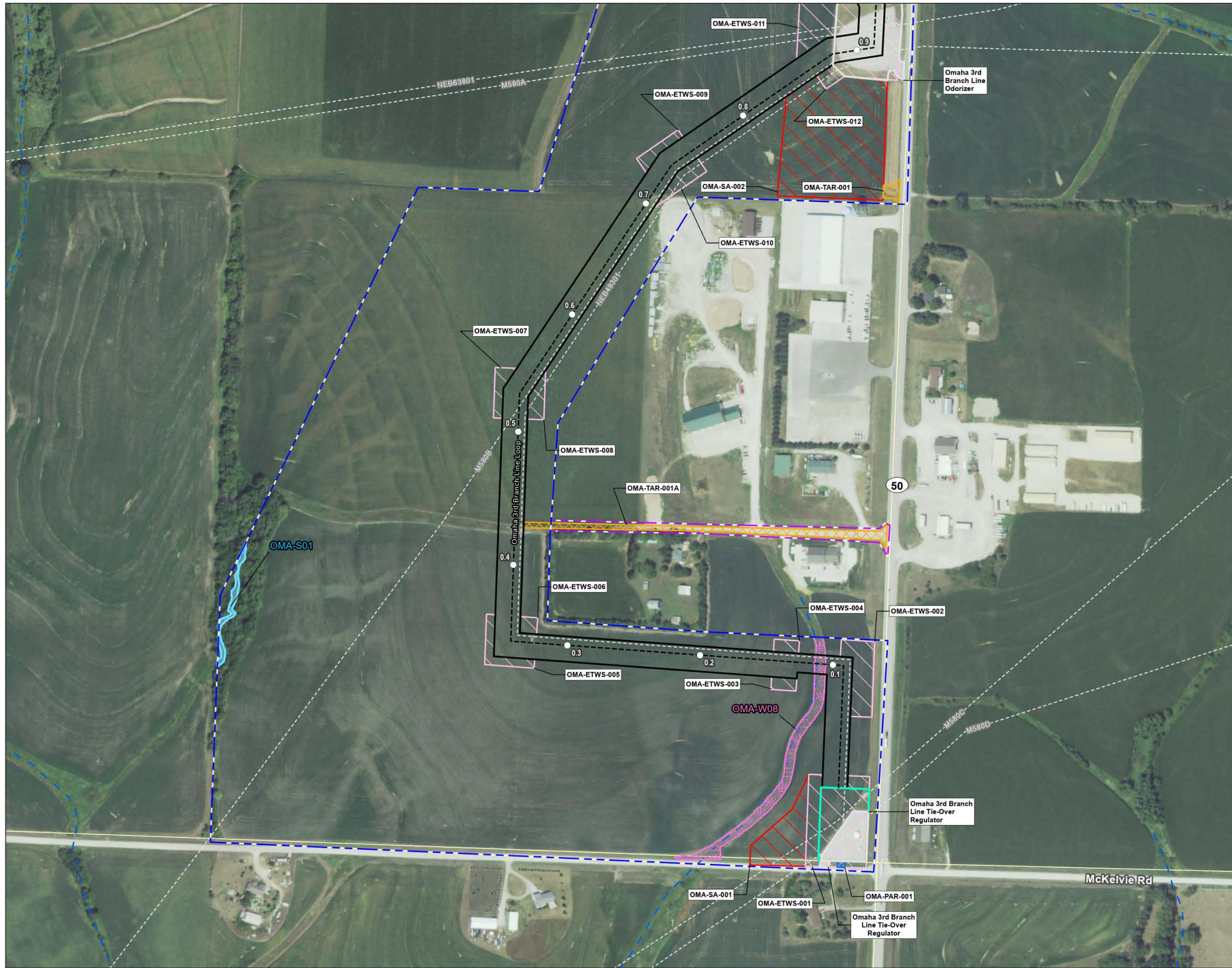
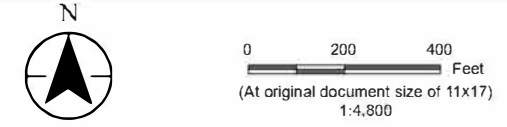


Figure No. **1**
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**Noxious Weed Locations
 Omaha 3rd Branch Line Loop**

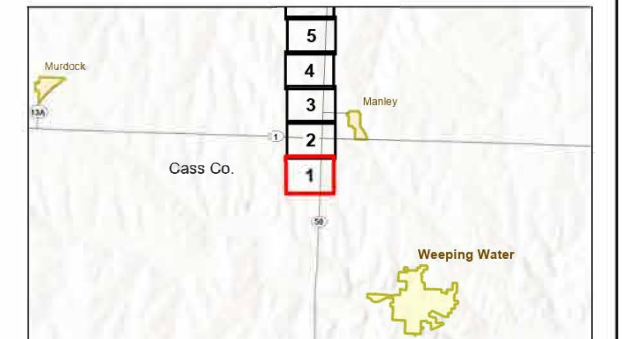
Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project 172609221

Project Location
 Precinct of Center
 Cass County, Nebraska

Prepared by SF on 2026-02-27
 TR by JM on 2026-02-27
 IR by CS on 2026-03-20



- Legend
- Mile Post
 - Proposed Pipeline
 - Existing Pipeline
 - Environmental Survey Boundary
 - Environmental Survey Boundary To Be Surveyed
 - Existing Facility
 - Proposed Facility
 - Permanent Access Road
 - Temporary Workspace
 - Extra Temporary Workspace
 - Temporary Access Road
 - Staging Area
 - Field Delineated Waterway Line
 - Field Delineated Waterway Area
 - Field Delineated Wetland
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

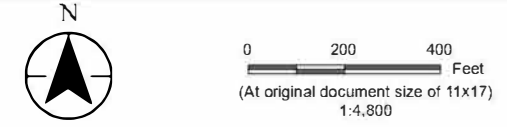
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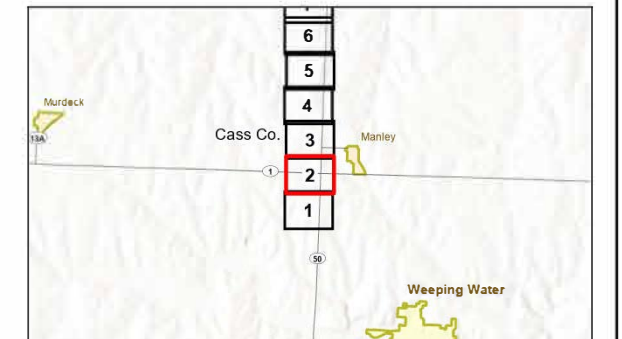
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Title
**Noxious Weed Locations
Omaha 3rd Branch Line Loop**

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project 172609221

Project Location
Precinct of Center
Cass County, Nebraska
Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20



- Legend
- Mile Post
 - HDD
 - Proposed Pipeline
 - Existing Pipeline
 - Environmental Survey Boundary
 - Existing Facility
 - Temporary Workspace
 - Extra Temporary Workspace
 - ▨ Staging Area
 - ~ Field Delineated Waterway Line
 - ~ Field Delineated Waterway Area
 - ~ Field Delineated Wetland
 - National Hydrography Dataset
 - ~ Perennial Stream
 - ~ Intermittent Stream
 - ~ Canal/Ditch
 - ~ Waterbody



Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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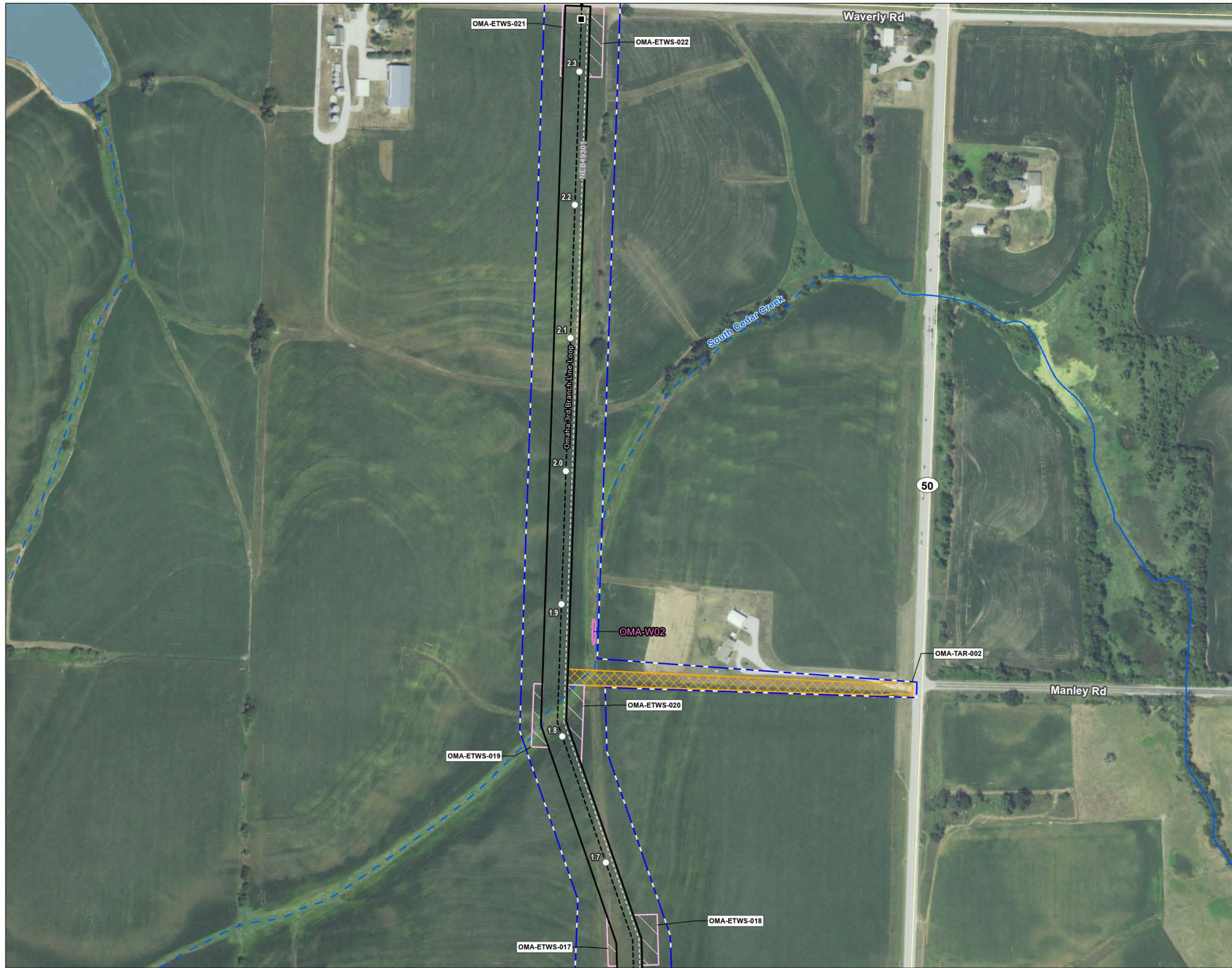
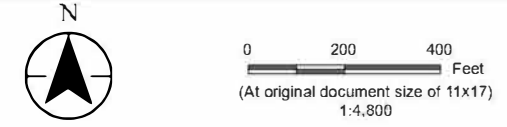


Figure No. **1**
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 Omaha 3rd Branch Line Loop**

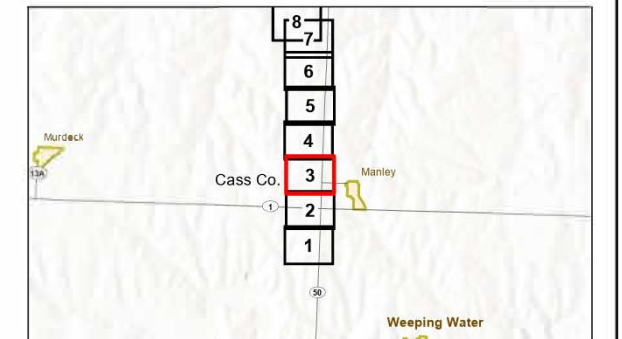
Client/Project
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 Central Mainline Corridor Expansion Project 172609221

Project Location
 Precinct of Center
 Cass County, Nebraska

Prepared by SF on 2026-02-27
 TR by JM on 2026-02-27
 IR by CS on 2026-03-20



- Legend
- Mile Post
 - HDD
 - - - Proposed Pipeline
 - Existing Pipeline
 - [Blue dashed line] Environmental Survey Boundary
 - [Black outline] Temporary Workspace
 - [Pink outline] Extra Temporary Workspace
 - [Yellow hatched] Temporary Access Road
 - [Pink hatched] Field Delineated Wetland
 - National Hydrography Dataset
 - [Blue wavy line] Perennial Stream
 - [Blue dashed wavy line] Intermittent Stream
 - [Blue dashed line] Canal/Ditch
 - [Blue area] Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

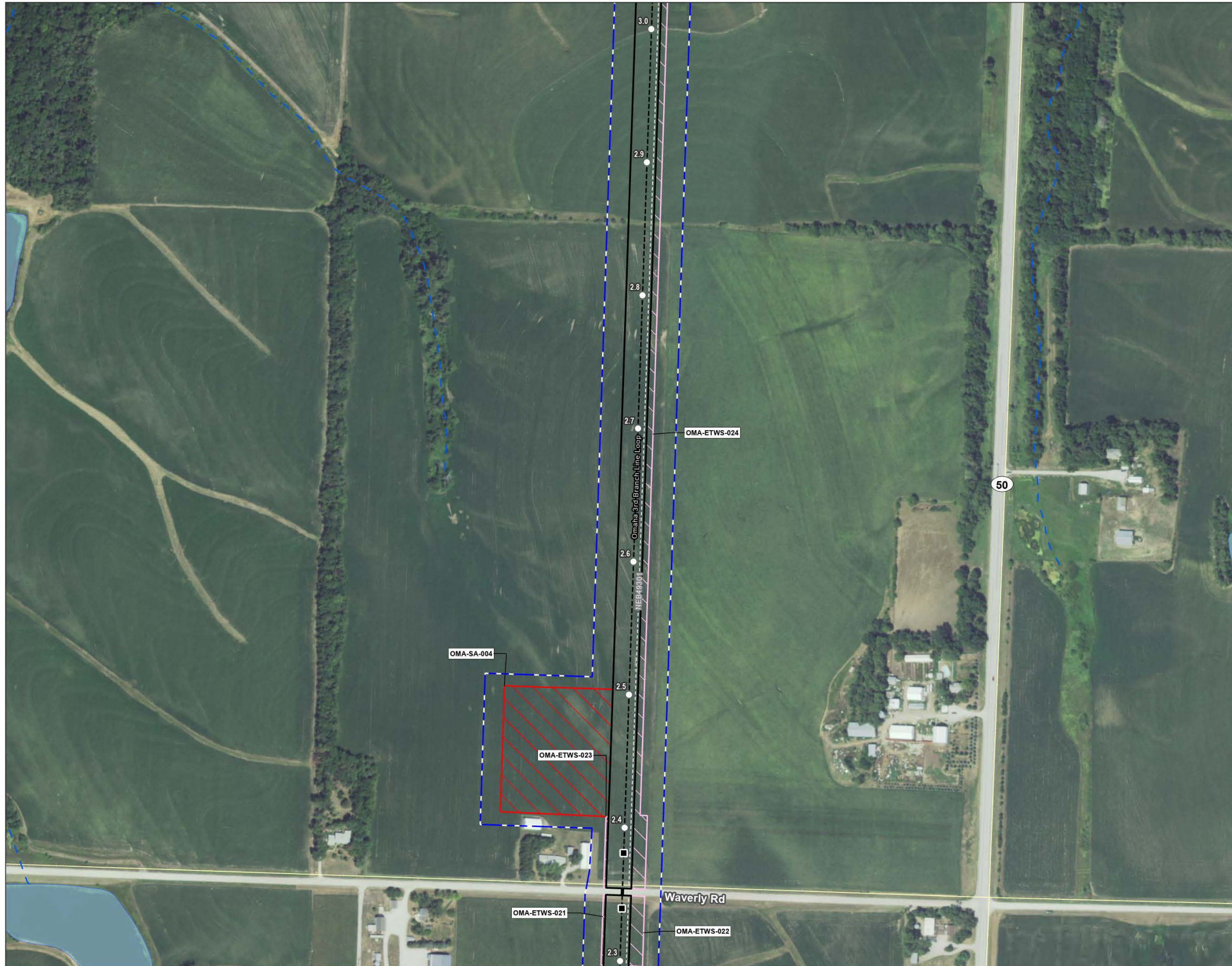


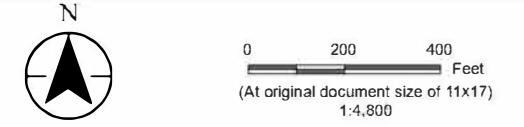
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**Noxious Weed Locations
Omaha 3rd Branch Line Loop**

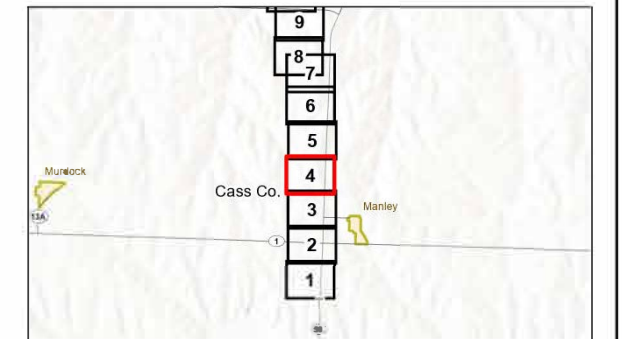
Client/Project
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Central Mainline Corridor Expansion Project 172609221

Project Location
Precinct of Center
Cass County, Nebraska

Prepared by SF on 2026-02-27
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- Legend
- Mile Post
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 - Proposed Pipeline
 - Existing Pipeline
 - Environmental Survey Boundary
 - Temporary Workspace
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 - Staging Area
 - National Hydrography Dataset
 - ~ Perennial Stream
 - - - Intermittent Stream
 - - - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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Figure No.

1

Title

Noxious Weed Locations Omaha 3rd Branch Line Loop

Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project

172609221

Project Location
 Precinct of Center
 Cass County, Nebraska

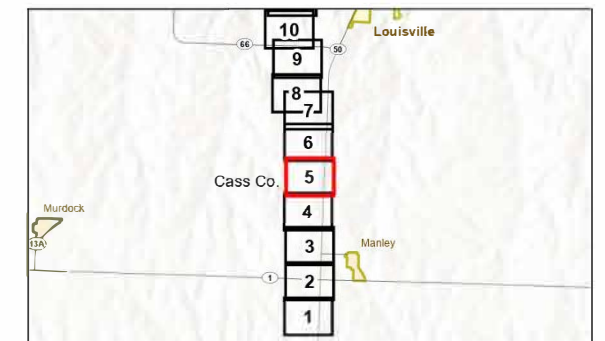
Prepared by SF on 2026-02-27
 TR by JM on 2026-02-27
 IR by CS on 2026-03-20



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Legend

- Mile Post
- - - Proposed Pipeline
- - - Existing Pipeline
- [Blue dashed box] Environmental Survey Boundary
- [Black dashed box] Temporary Workspace
- [Pink dashed box] Extra Temporary Workspace
- National Hydrography Dataset
 - [Blue wavy line] Perennial Stream
 - [Blue dashed wavy line] Intermittent Stream
 - [Blue dashed line] Canal/Ditch
 - [Blue shaded area] Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022



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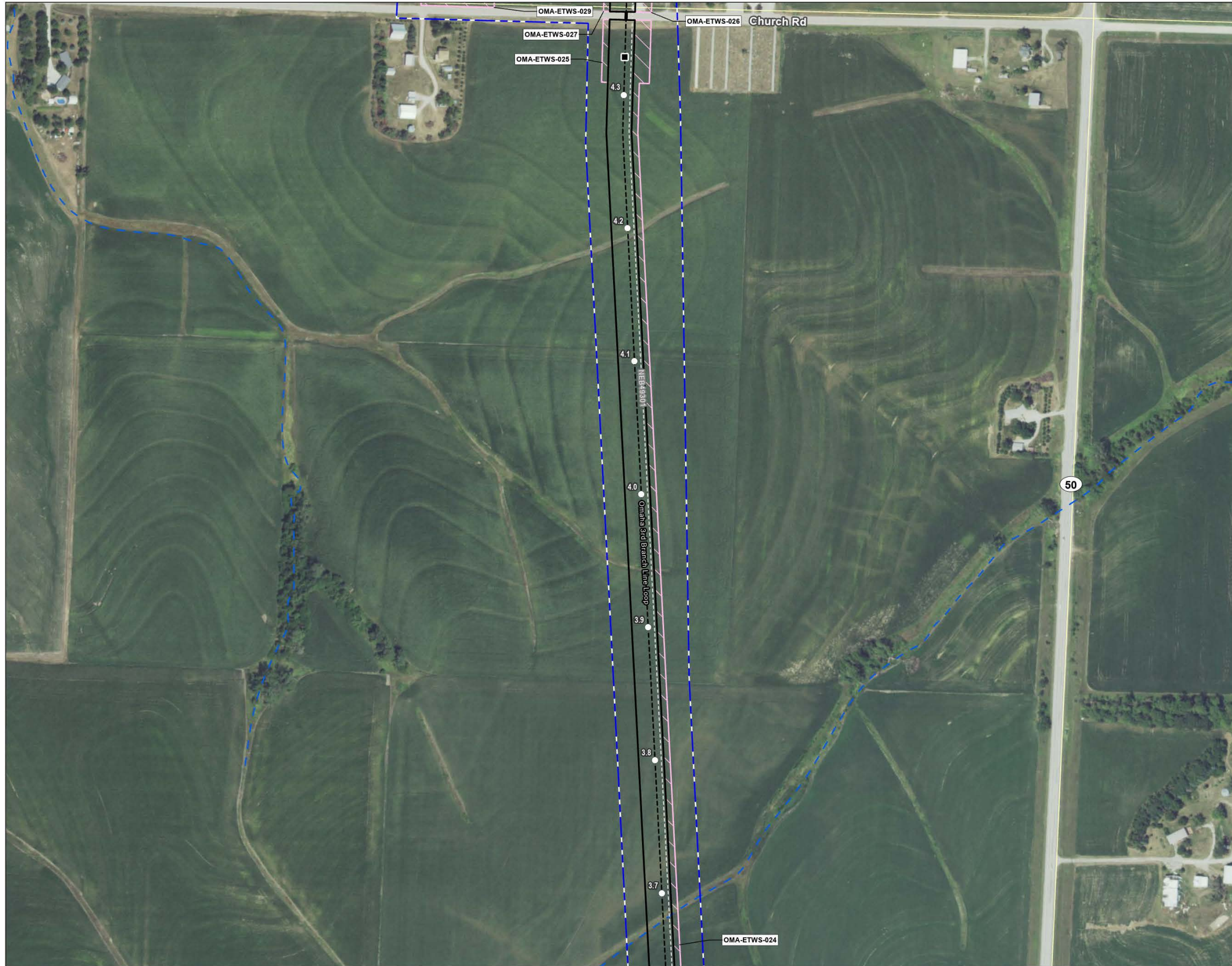


Figure No.

1

Title

Noxious Weed Locations Omaha 3rd Branch Line Loop

Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project

172609221

Project Location
 Precinct of Center
 Cass County, Nebraska

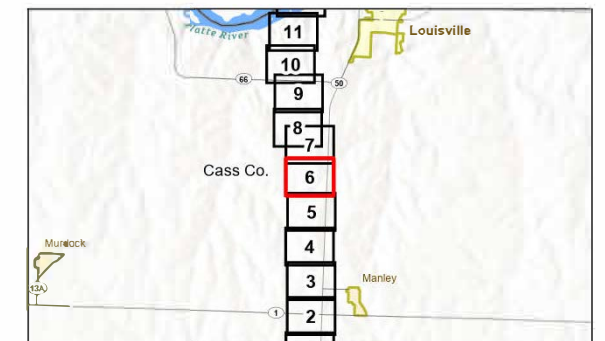
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Legend

- Mile Post
- HDD
- Proposed Pipeline
- Existing Pipeline
- ▭ Environmental Survey Boundary
- ▭ Temporary Workspace
- ▭ Extra Temporary Workspace
- National Hydrography Dataset
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- - - Intermittent Stream
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Figure No.

1

Title

Noxious Weed Locations Omaha 3rd Branch Line Loop

Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project

172609221

Project Location
 Precinct of Louisville
 Cass County, Nebraska

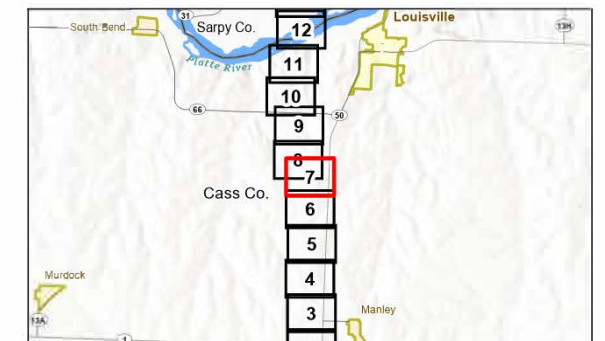
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 TR by JM on 2024-02-27
 IR by CS on 2024-03-20



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Legend

- Mile Post
- HDD
- Proposed Pipeline
- Existing Pipeline
- ▭ Environmental Survey Boundary
- ▭ Environmental Survey Boundary To Be Surveyed
- ▭ Temporary Workspace
- ▭ Extra Temporary Workspace
- National Hydrography Dataset
- ~ Perennial Stream
- ~ Intermittent Stream
- ~ Canal/Ditch
- Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022



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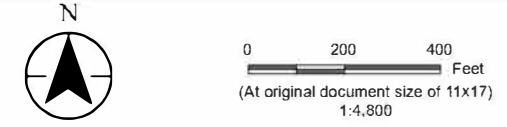
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Title
**Noxious Weed Locations
Omaha 3rd Branch Line Loop**

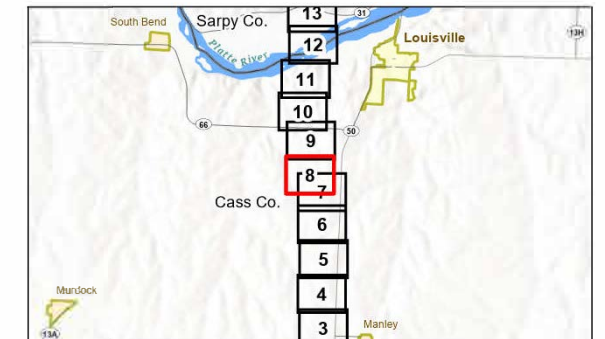
Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

Project Location
Precinct of Louisville
Cass County, Nebraska

Prepared by SF on 2024-02-27
TR by JM on 2024-02-27
IR by CS on 2024-03-20



- Legend
- Mile Post
 - - - Proposed Pipeline
 - - - Existing Pipeline
 - Environmental Survey Boundary
 - Environmental Survey Boundary To Be Surveyed
 - Temporary Workspace
 - Extra Temporary Workspace
 - ▨ Temporary Access Road
 - Field Delineated Waterway Line
 - Field Delineated Waterway Area
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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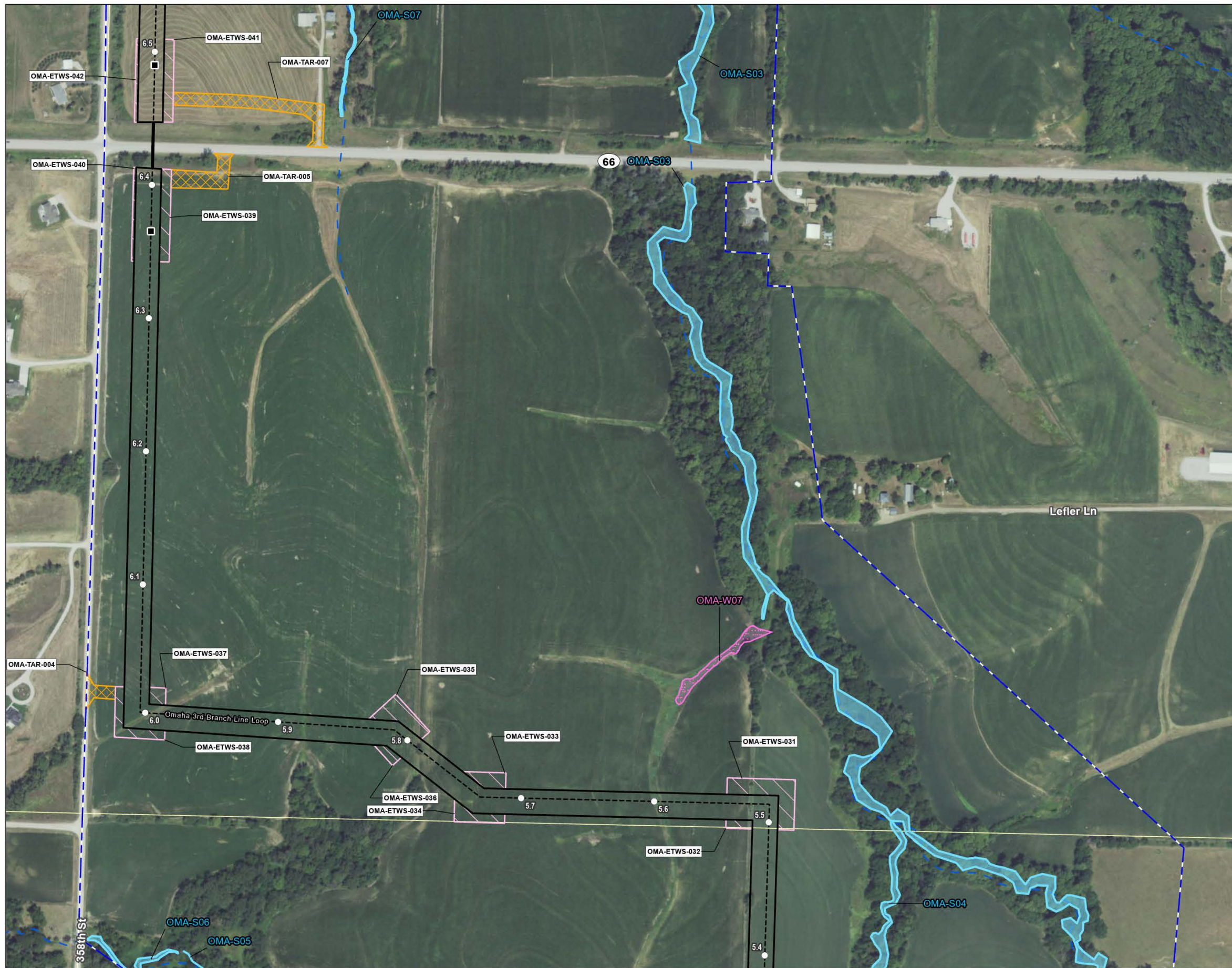


Figure No. **1**
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**Noxious Weed Locations
 Omaha 3rd Branch Line Loop**

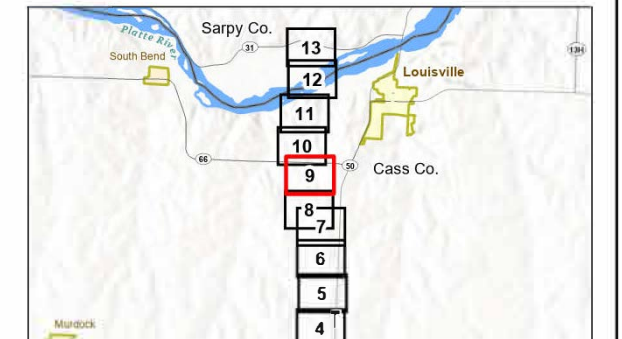
Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project 172609221

Project Location
 Precinct of Louisville
 Cass County, Nebraska

Prepared by SF on 2026-02-27
 TR by JM on 2026-02-27
 IR by CS on 2026-03-20



- Legend
- Mile Post
 - HDD
 - Proposed Pipeline
 - Environmental Survey Boundary
 - Temporary Workspace
 - Extra Temporary Workspace
 - Temporary Access Road
 - Field Delineated Waterway Line
 - Field Delineated Waterway Area
 - Field Delineated Wetland
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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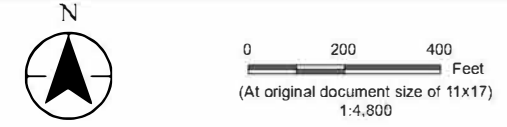


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**Noxious Weed Locations
 Omaha 3rd Branch Line Loop**

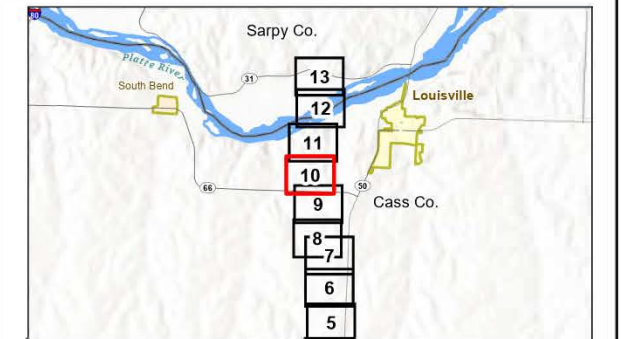
Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project 172609221

Project Location
 Precinct of Louisville
 Cass County, Nebraska

Prepared by SF on 2026-02-27
 TR by JM on 2026-02-27
 IR by CS on 2026-03-20



- Legend
- Mile Post
 - HDD
 - - - Proposed Pipeline
 - Environmental Survey Boundary
 - Temporary Workspace
 - Extra Temporary Workspace
 - Temporary Access Road
 - Staging Area
 - Field Delineated Waterway Line
 - Field Delineated Waterway Area
 - Field Delineated Open Water
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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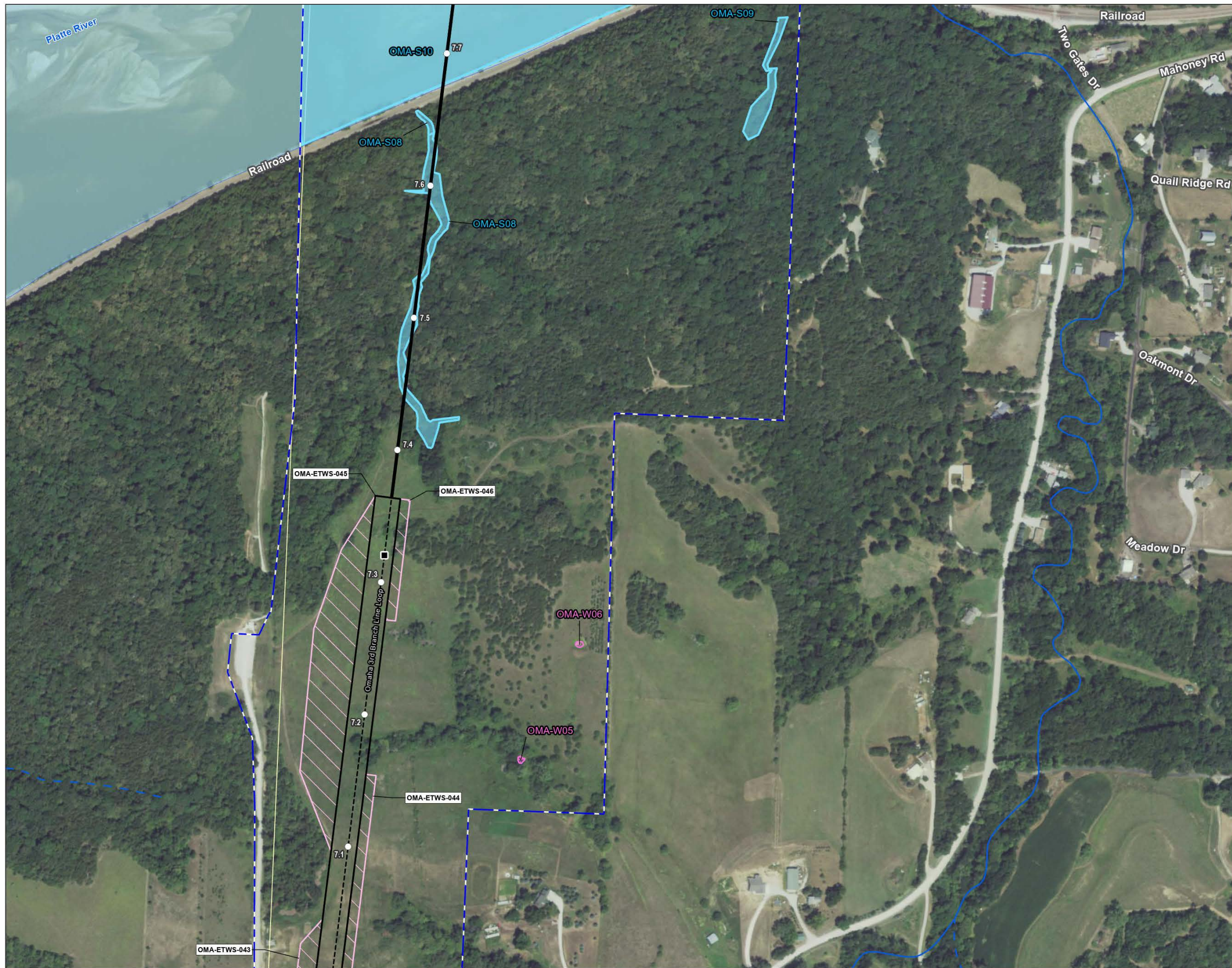
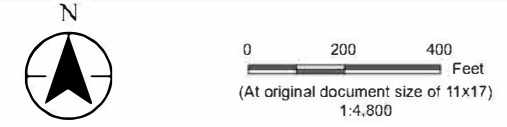


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**Noxious Weed Locations
 Omaha 3rd Branch Line Loop**

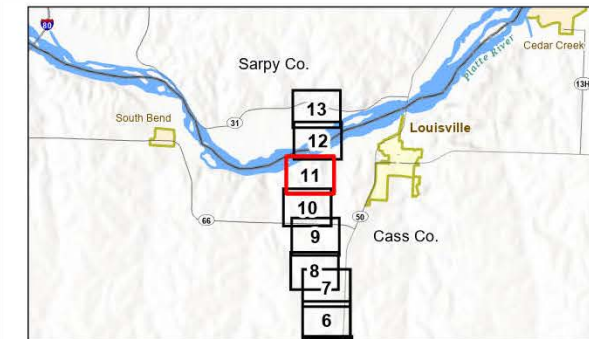
Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project 172609221

Project Location
 Precinct of Louisville
 Cass County, Nebraska

Prepared by SF on 2024-02-27
 TR by JM on 2024-02-27
 IR by CS on 2024-03-20



- Legend
- Mile Post
 - HDD
 - Proposed Pipeline
 - Environmental Survey Boundary
 - Temporary Workspace
 - Extra Temporary Workspace
 - Field Delineated Waterway Line
 - Field Delineated Waterway Area
 - Field Delineated Wetland
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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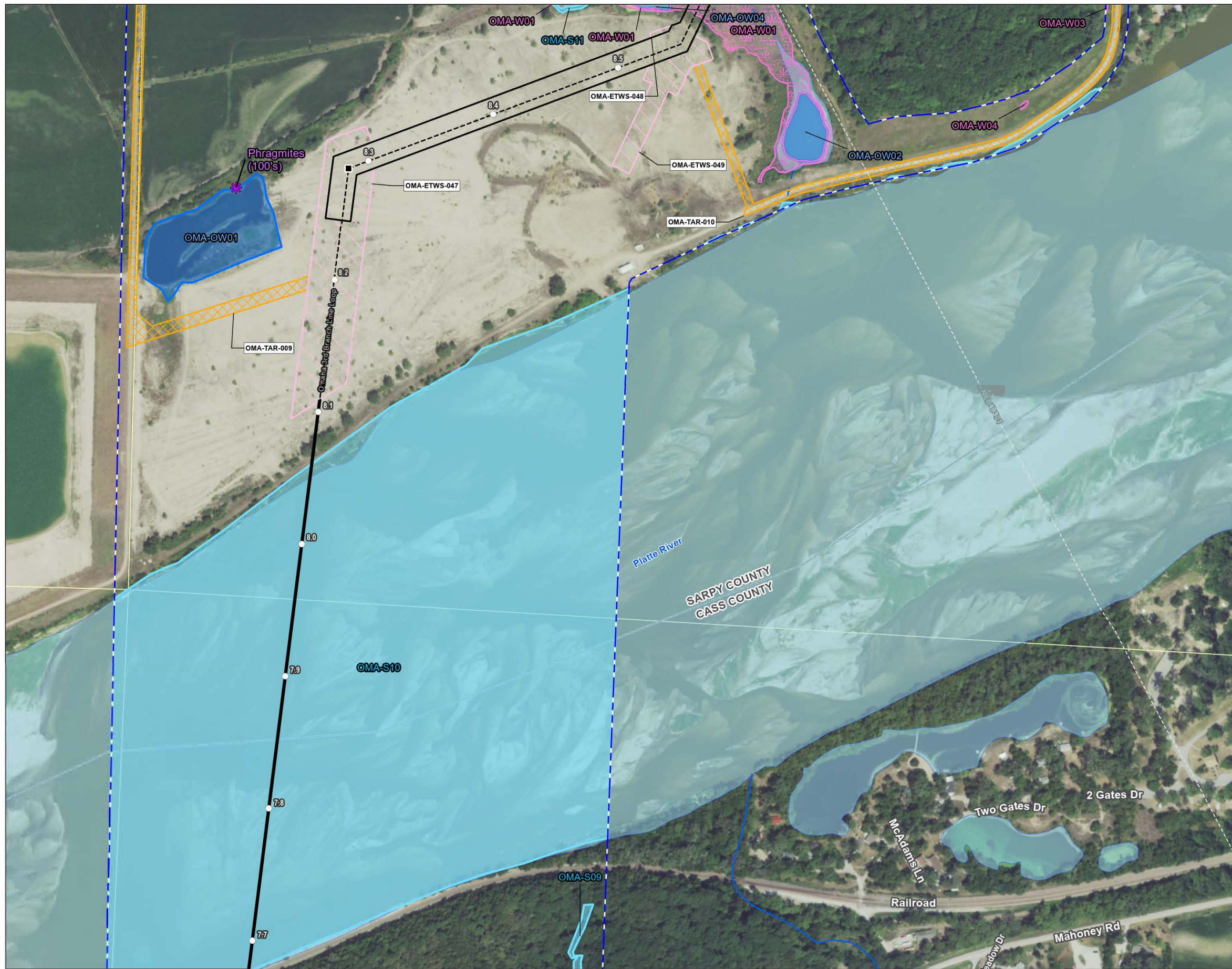
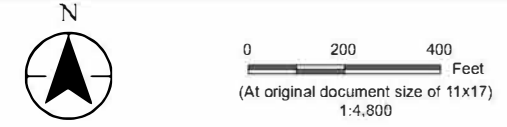
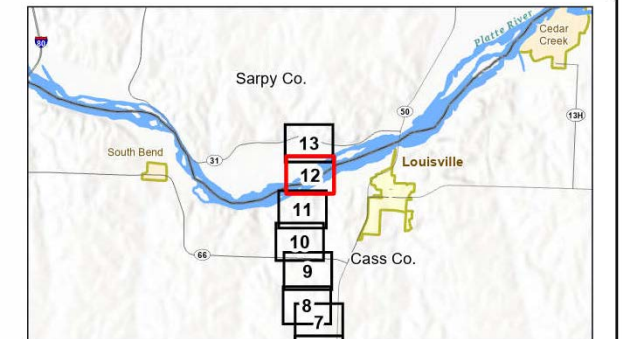


Figure No. **1**
 Title
**Noxious Weed Locations
 Omaha 3rd Branch Line Loop**
 Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project
 172609221
 Project Location
 Precinct of Plattford-Springfield II
 Sarpy & Cass Counties, Nebraska
 Prepared by SF on 2024-02-27
 TR by JM on 2024-02-27
 IR by CS on 2024-03-20



- Legend**
- Mile Post
 - HDD
 - Proposed Pipeline
 - Existing Pipeline
 - Environmental Survey Boundary
 - Temporary Workspace
 - Extra Temporary Workspace
 - ▨ Temporary Access Road
 - ✱ Noxious Weed Point
 - Field Delineated Waterway Line
 - Field Delineated Waterway Area
 - Field Delineated Open Water
 - Field Delineated Wetland
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes
 1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2022

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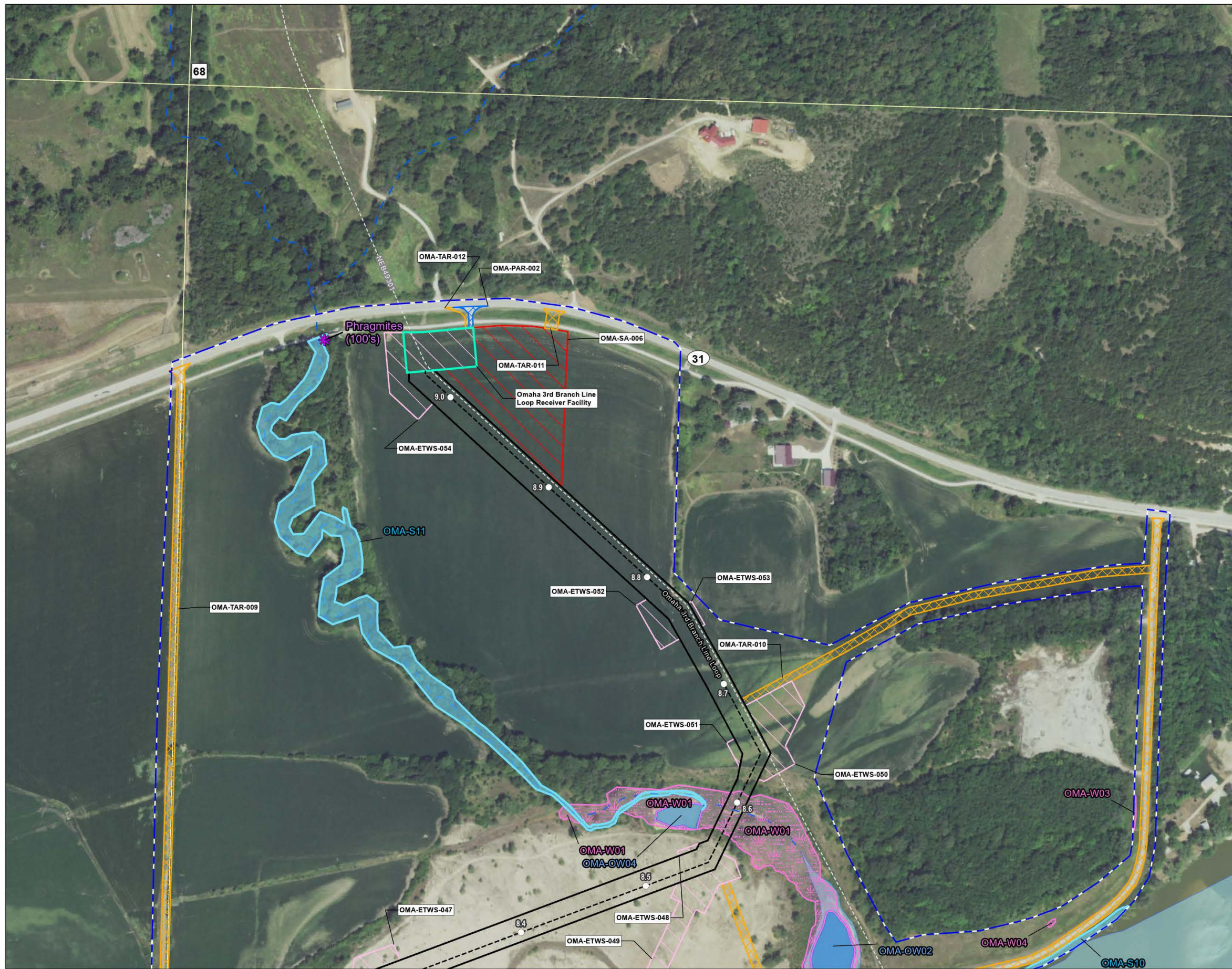


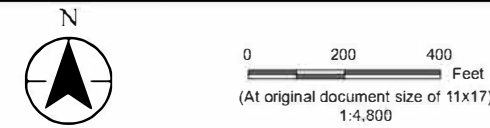
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Title
**Noxious Weed Locations
Omaha 3rd Branch Line Loop**

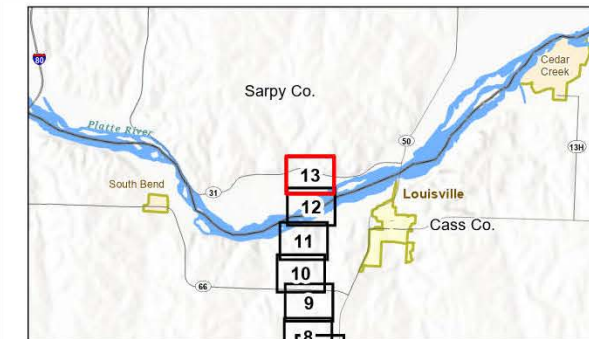
Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project 172609221

Project Location
Precinct of Plattford-Springfield II
Sarpy County, Nebraska

Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20



- Legend
- Mile Post
 - Proposed Pipeline
 - Existing Pipeline
 - Environmental Survey Boundary
 - Proposed Facility
 - Permanent Access Road
 - Temporary Workspace
 - Extra Temporary Workspace
 - Temporary Access Road
 - Staging Area
 - * Noxious Weed Point
 - Field Delineated Waterway Line
 - Field Delineated Waterway Area
 - Field Delineated Open Water
 - Field Delineated Wetland
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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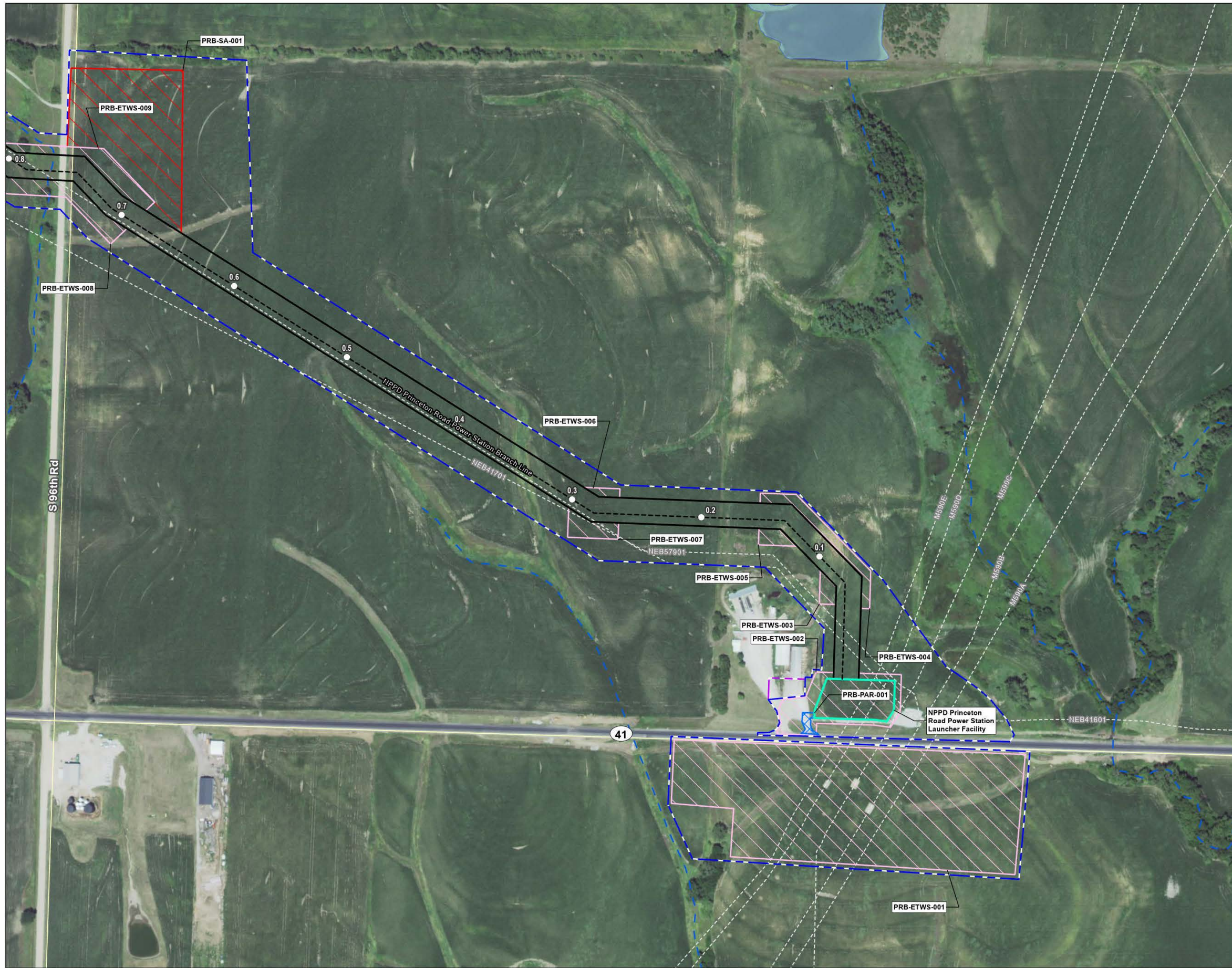


Figure No.

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Title

Noxious Weed Locations NPPD Princeton Road Power Station Branch Line

Client/Project Northern Natural Gas 172609221
Central Mainline Corridor Expansion Project

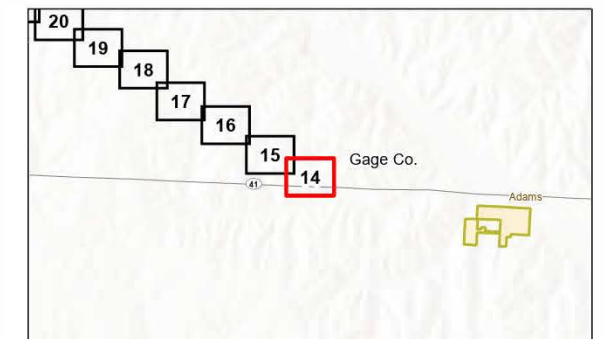
Project Location Township of Nemaha Prepared by SF on 2024-02-27
Gage County, Nebraska TR by JM on 2024-02-27
IR by CS on 2024-03-20



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Legend

- Mile Post
- - - Proposed Pipeline
- - - Existing Pipeline
- Environmental Survey Boundary
- Environmental Survey Boundary To Be Surveyed
- Proposed Facility
- Permanent Access Road
- Temporary Workspace
- Extra Temporary Workspace
- Staging Area
- National Hydrography Dataset
- Perennial Stream
- Intermittent Stream
- Canal/Ditch
- Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2022



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Figure No.
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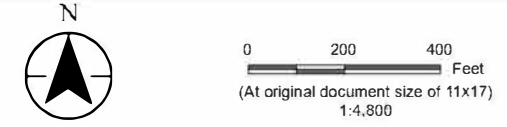
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NPPD Princeton Road Power Station
Branch Line**

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

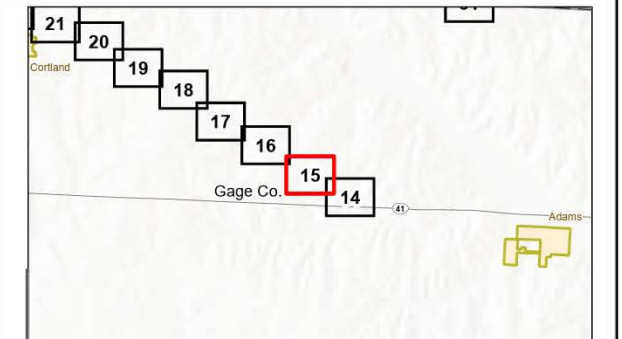
Project Location
Township of Nemaha
Gage County, Nebraska

Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20

172609221



- Legend
- Mile Post
 - - - Proposed Pipeline
 - - - Existing Pipeline
 - [Blue dashed line] Environmental Survey Boundary
 - [Black dashed line] Temporary Workspace
 - [Pink dashed line] Extra Temporary Workspace
 - [Red dashed line] Staging Area
 - [Blue wavy line] Field Delineated Open Water
 - [Blue wavy line] National Hydrography Dataset
 - [Blue wavy line] Perennial Stream
 - [Blue dashed wavy line] Intermittent Stream
 - [Blue dashed wavy line] Canal/Ditch
 - [Blue solid wavy line] Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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Figure No. **1**

Title
**Noxious Weed Locations
 NPPD Princeton Road Power Station
 Branch Line**

Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project

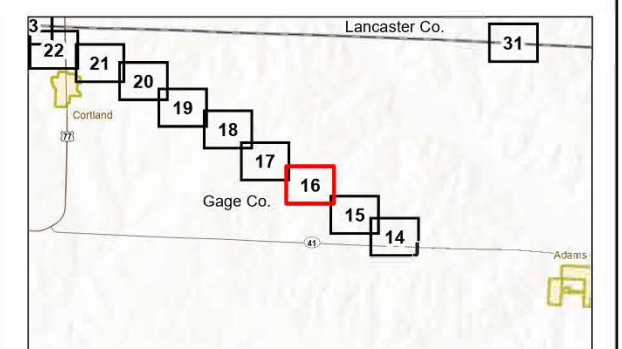
Project Location
 Township of Nemaha
 Gage County, Nebraska

Prepared by SF on 2026-02-27
 TR by JM on 2026-02-27
 IR by CS on 2026-03-20

172609221



- Legend
- Mile Post
 - HDD
 - - - Proposed Pipeline
 - Existing Pipeline
 - ▭ Environmental Survey Boundary
 - ▭ Temporary Workspace
 - ▭ Extra Temporary Workspace
 - ▭ Staging Area
 - National Hydrography Dataset
 - ~ Perennial Stream
 - - - Intermittent Stream
 - - - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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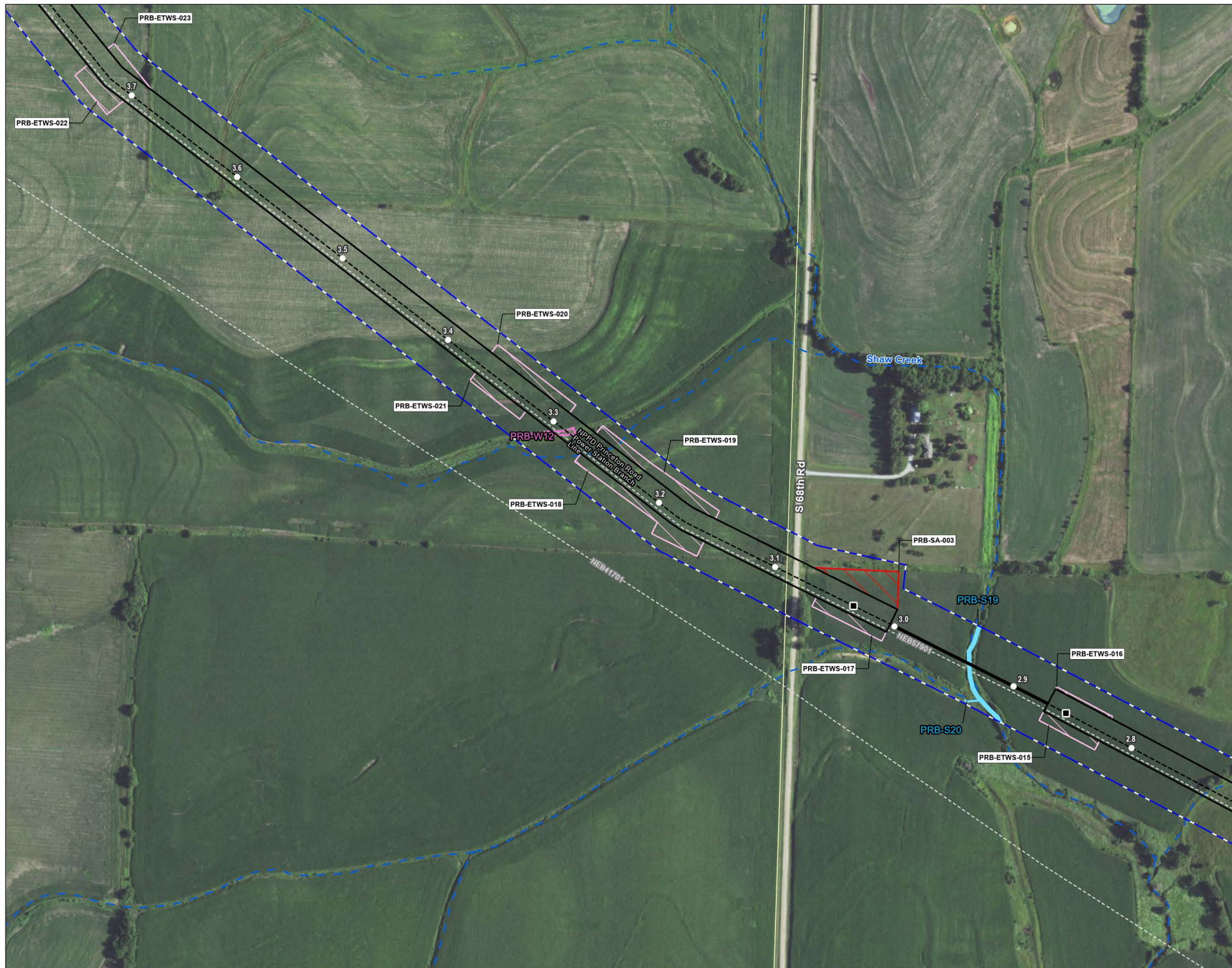
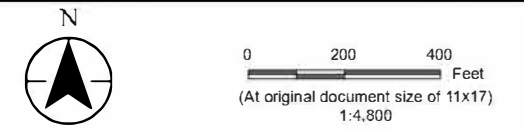
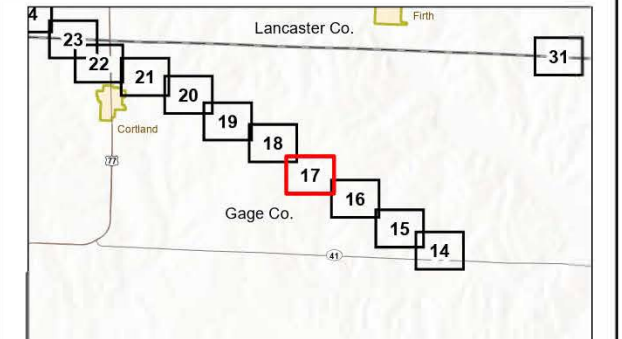


Figure No. **1**
 Title
**Noxious Weed Locations
 NPPD Princeton Road Power Station
 Branch Line**
 Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project
 172609221
 Project Location
 Township of Nemaha
 Gage County, Nebraska
 Prepared by SF on 2026-02-27
 TR by JM on 2026-02-27
 IR by CS on 2026-03-20



- Legend
- Mile Post
 - HDD
 - - - Proposed Pipeline
 - Existing Pipeline
 - Environmental Survey Boundary
 - Temporary Workspace
 - Extra Temporary Workspace
 - Staging Area
 - Field Delineated Waterway Line
 - Field Delineated Waterway Area
 - Field Delineated Wetland
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes
 1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2022

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Figure No.

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Title

Noxious Weed Locations NPPD Princeton Road Power Station Branch Line

Client/Project Northern Natural Gas 172609221
Central Mainline Corridor Expansion Project

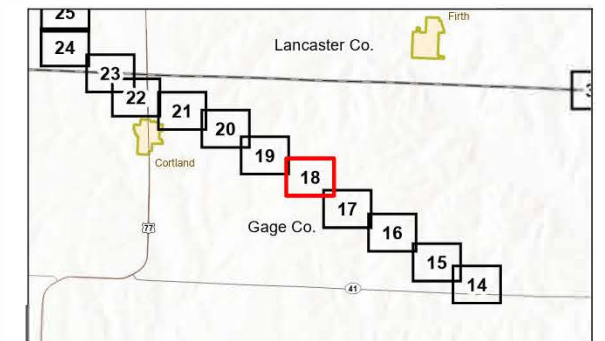
Project Location Township of Nemaha Gage County, Nebraska Prepared by SF on 2026-02-27 TR by JM on 2026-02-27 IR by CS on 2026-03-20



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Legend

- Mile Post
- Proposed Pipeline
- Existing Pipeline
- Environmental Survey Boundary
- Temporary Workspace
- Extra Temporary Workspace
- ▨ Temporary Access Road
- ▨ Staging Area
- National Hydrography Dataset
- ~ Perennial Stream
- - - Intermittent Stream
- - - Canal/Ditch
- Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2022



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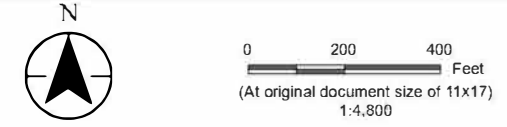
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**Noxious Weed Locations
 NPPD Princeton Road Power Station
 Branch Line**

Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project

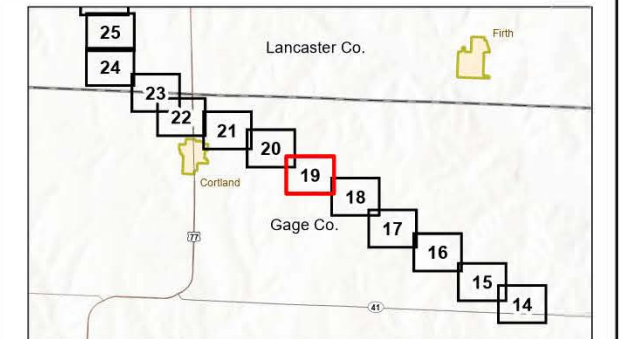
Project Location
 Township of Nemaha
 Gage County, Nebraska

Prepared by SF on 2026-02-27
 TR by JM on 2026-02-27
 IR by CS on 2026-03-20

172609221



- Legend
- Mile Post
 - - - Proposed Pipeline
 - - - Existing Pipeline
 - [Blue dashed line] Environmental Survey Boundary
 - [Black dashed line] Temporary Workspace
 - [Pink dashed line] Extra Temporary Workspace
 - [Pink shaded area] Field Delineated Wetland
 - National Hydrography Dataset
 - [Blue wavy line] Perennial Stream
 - [Blue dashed wavy line] Intermittent Stream
 - [Blue dashed line] Canal/Ditch
 - [Blue shaded area] Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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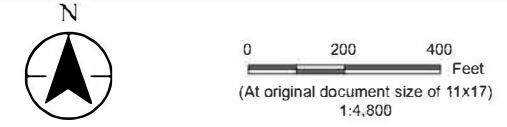
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Title
**Noxious Weed Locations
NPPD Princeton Road Power Station
Branch Line**

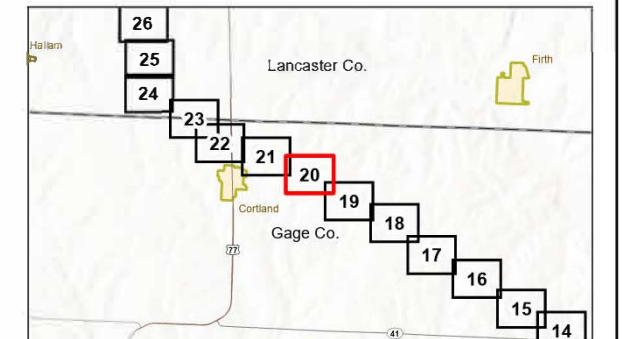
Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

Project Location
Township of Nemaha
Gage County, Nebraska

Prepared by SF on 2024-02-27
TR by JM on 2024-02-27
IR by CS on 2024-03-20



- Legend
- Mile Post
 - HDD
 - - - Proposed Pipeline
 - Existing Pipeline
 - Environmental Survey Boundary
 - Temporary Workspace
 - Extra Temporary Workspace
 - Temporary Access Road
 - Staging Area
 - National Hydrography Dataset
 - ~ Perennial Stream
 - - - Intermittent Stream
 - - - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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Figure No.
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Title
**Noxious Weed Locations
NPPD Princeton Road Power Station
Branch Line**

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

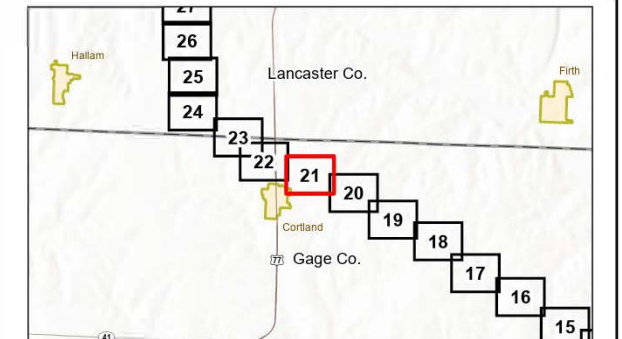
Project Location
Township of Highland
Gage County, Nebraska

Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20

172609221



- Legend
- Mile Post
 - HDD
 - - - Proposed Pipeline
 - Existing Pipeline
 - Environmental Survey Boundary
 - Temporary Workspace
 - Extra Temporary Workspace
 - Temporary Access Road
 - Field Delineated Waterway Line
 - Field Delineated Wetland
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
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Notes

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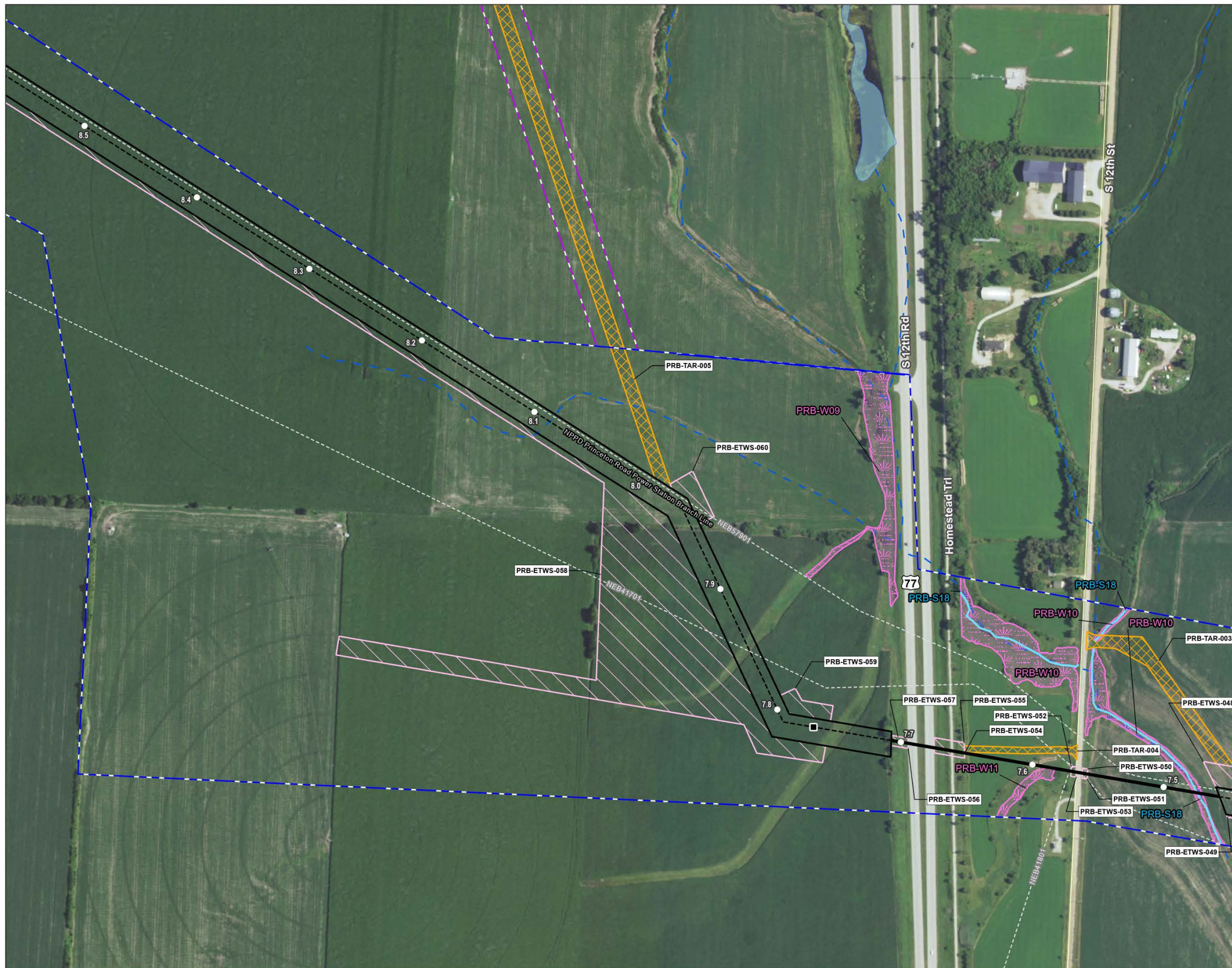


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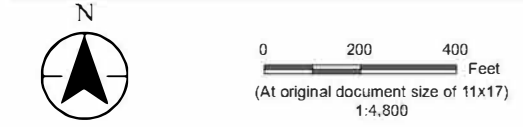
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NPPD Princeton Road Power Station
Branch Line**

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

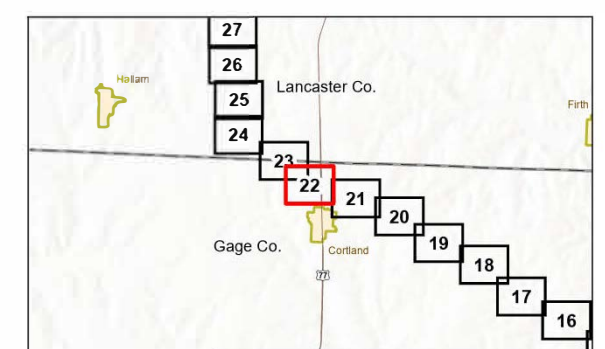
Project Location
Township of Highland
Gage County, Nebraska

Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20

172609221



- Legend
- Mile Post
 - HDD
 - - - Proposed Pipeline
 - - - Existing Pipeline
 - Environmental Survey Boundary
 - Environmental Survey Boundary To Be Surveyed
 - Temporary Workspace
 - Extra Temporary Workspace
 - ▨ Temporary Access Road
 - ~ Field Delineated Waterway Line
 - ~ Field Delineated Wetland
 - National Hydrography Dataset
 - ~ Perennial Stream
 - ~ Intermittent Stream
 - ~ Canal/Ditch
 - ~ Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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Figure No.
1

Title
**Noxious Weed Locations
NPPD Princeton Road Power Station
Branch Line**

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

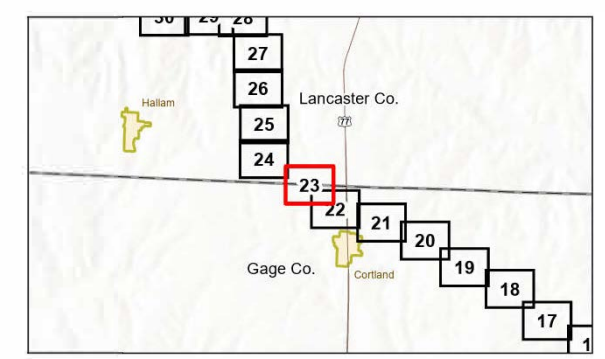
Project Location
Township of Highland
Lancaster & Gage Counties, Nebraska

Prepared by SF on 2024-02-27
TR by JM on 2024-02-27
IR by CS on 2024-03-20

172609221



- Legend
- Mile Post
 - - - Proposed Pipeline
 - Existing Pipeline
 - Environmental Survey Boundary
 - Environmental Survey Boundary To Be Surveyed
 - Temporary Workspace
 - Extra Temporary Workspace
 - ▨ Temporary Access Road
 - ▨ Staging Area
 - National Hydrography Dataset
 - ~ Perennial Stream
 - - - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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Figure No.

1

Title

**Noxious Weed Locations
NPPD Princeton Road Power Station
Branch Line**

172609221

Client/Project

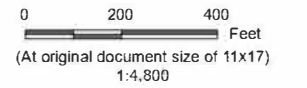
Northern Natural Gas
Central Mainline Corridor Expansion Project

Project Location

Precinct of Buola
Lancaster County, Nebraska

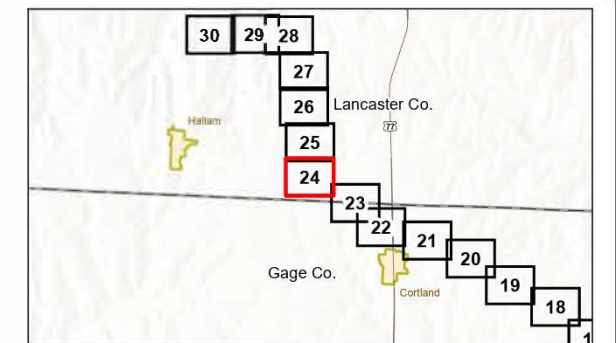
Prepared by SF on 2024-02-27

TR by JM on 2024-02-27
IR by CS on 2024-03-20



Legend

- Mile Post
- - - Proposed Pipeline
- Existing Pipeline
- [Blue dashed box] Environmental Survey Boundary
- [Purple dashed box] Environmental Survey Boundary To Be Surveyed
- [Black box] Temporary Workspace
- [Pink box] Extra Temporary Workspace
- [Red hatched box] Staging Area
- National Hydrography Dataset
 - [Blue wavy line] Perennial Stream
 - [Blue dashed wavy line] Intermittent Stream
 - [Blue dashed line] Canal/Ditch
 - [Blue shaded area] Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022



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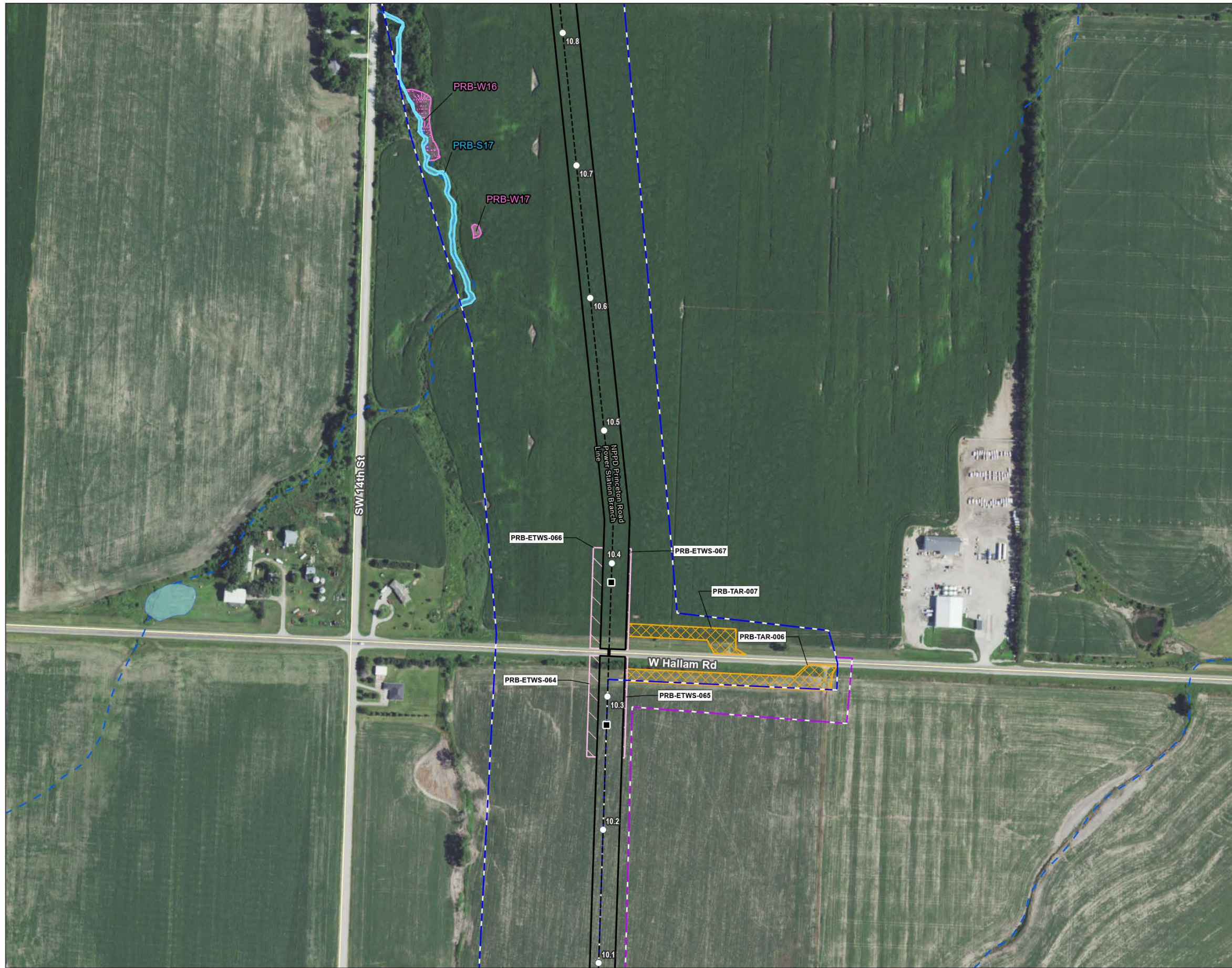


Figure No.

1

Title

Noxious Weed Locations NPPD Princeton Road Power Station Branch Line

Client/Project 172609221

Northern Natural Gas
Central Mainline Corridor Expansion Project

Project Location
Precinct of Buola
Lancaster County, Nebraska

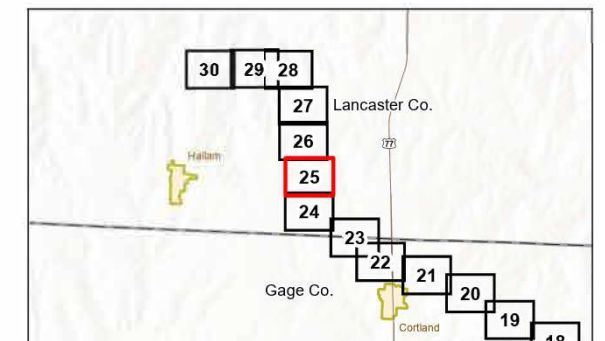
Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20



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Legend

- Mile Post
- HDD
- Proposed Pipeline
- Environmental Survey Boundary
- Environmental Survey Boundary To Be Surveyed
- Temporary Workspace
- Extra Temporary Workspace
- ▨ Temporary Access Road
- ~ Field Delineated Waterway Line
- ~ Field Delineated Waterway Area
- ~ Field Delineated Wetland
- National Hydrography Dataset
- ~ Perennial Stream
- ~ Intermittent Stream
- ~ Canal/Ditch
- ~ Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2022



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Figure No. **1**

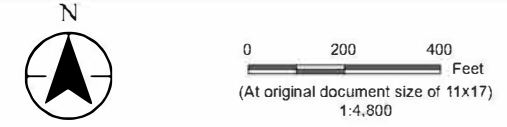
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**Noxious Weed Locations
NPPD Princeton Road Power Station
Branch Line**

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

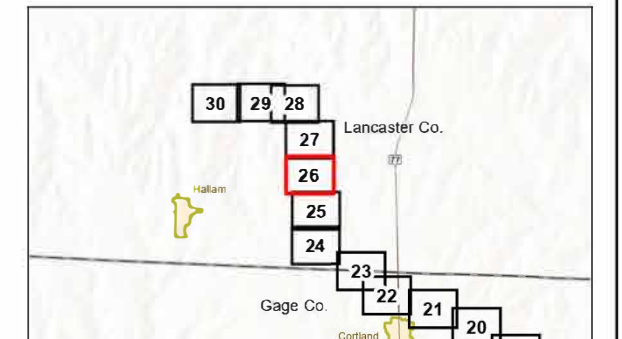
Project Location
Precinct of Buola
Lancaster County, Nebraska

Prepared by SF on 2024-02-27
TR by JM on 2024-02-27
IR by CS on 2024-03-20

172609221



- Legend
- Mile Post
 - HDD
 - - - Proposed Pipeline
 - ▭ Environmental Survey Boundary
 - ▭ Temporary Workspace
 - ▭ Extra Temporary Workspace
 - ▭ Temporary Access Road
 - ▭ Staging Area
 - ▭ Field Delineated Waterway Line
 - ▭ Field Delineated Waterway Area
 - ▭ Field Delineated Wetland
 - National Hydrography Dataset
 - ▭ Perennial Stream
 - ▭ Intermittent Stream
 - ▭ Canal/Ditch
 - ▭ Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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Figure No.

1

Title

**Noxious Weed Locations
NPPD Princeton Road Power Station
Branch Line**

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

172609221

Project Location
Precinct of Buola
Lancaster County, Nebraska

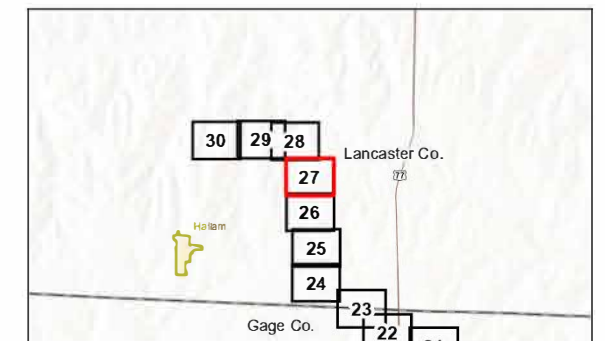
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TR by JM on 2026-02-27
IR by CS on 2026-03-20



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Legend

- Mile Post
- Proposed Pipeline
- Environmental Survey Boundary
- Temporary Workspace
- Extra Temporary Workspace
- Staging Area
- National Hydrography Dataset
- ~ Perennial Stream
- - - Intermittent Stream
- - - Canal/Ditch
- Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2022



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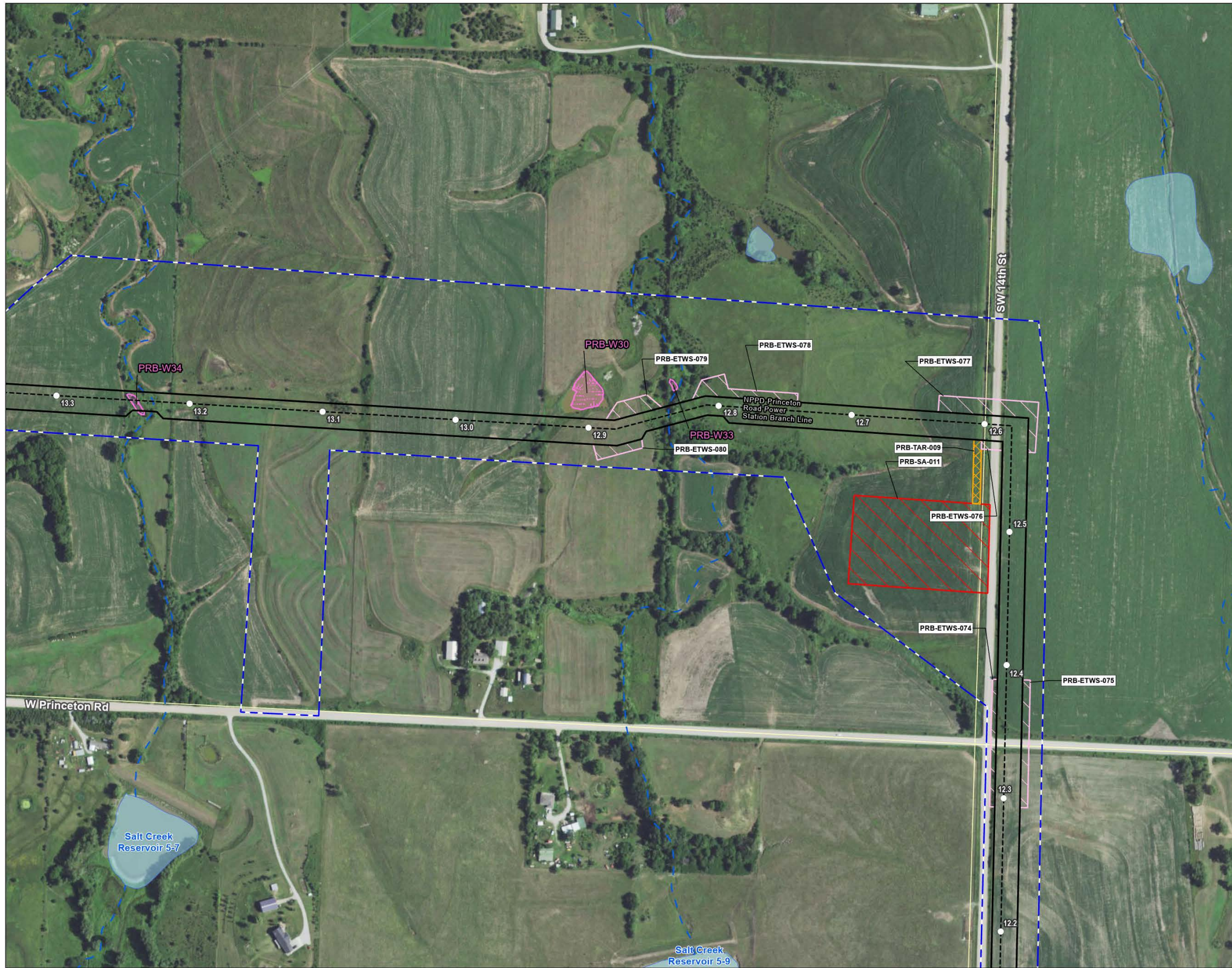


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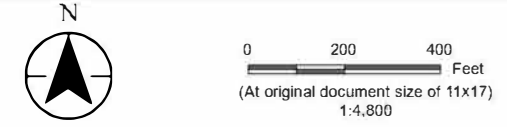
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**Noxious Weed Locations
NPPD Princeton Road Power Station
Branch Line**

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

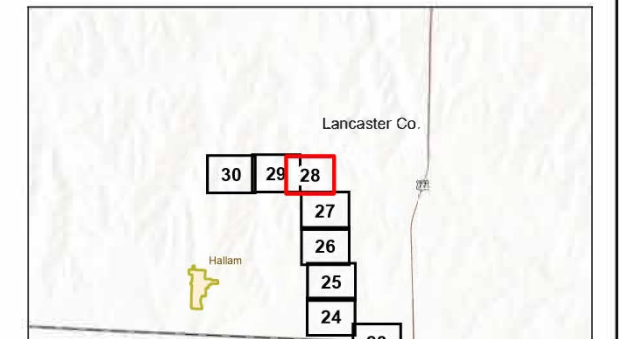
Project Location
Precinct of Buola
Lancaster County, Nebraska

Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20

172609221



- Legend
- Mile Post
 - - - Proposed Pipeline
 - [] Environmental Survey Boundary
 - [] Temporary Workspace
 - [] Extra Temporary Workspace
 - [] Temporary Access Road
 - [] Staging Area
 - [] Field Delineated Wetland
 - National Hydrography Dataset
 - [] Perennial Stream
 - [] Intermittent Stream
 - [] Canal/Ditch
 - [] Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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Figure No.
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Title
**Noxious Weed Locations
NPPD Princeton Road Power Station
Branch Line**

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

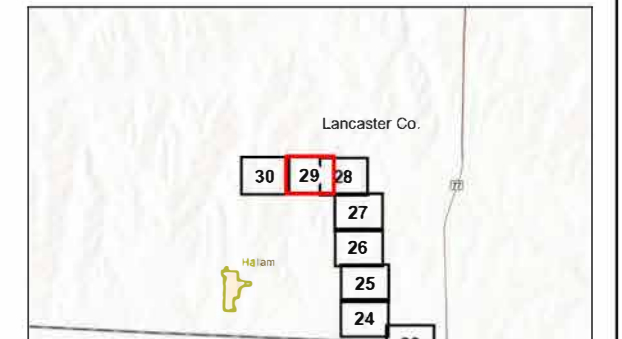
Project Location
Precinct of Buola
Lancaster County, Nebraska

172609221

Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20



- Legend
- Mile Post
 - HDD
 - - - Proposed Pipeline
 - [Blue dashed line] Environmental Survey Boundary
 - [Black dashed line] Temporary Workspace
 - [Pink dashed line] Extra Temporary Workspace
 - [Blue line with wavy border] Field Delineated Waterway Line
 - [Blue shaded area] Field Delineated Waterway Area
 - [Pink shaded area] Field Delineated Wetland
 - National Hydrography Dataset
 - [Blue line with wavy border] Perennial Stream
 - [Blue dashed line] Intermittent Stream
 - [Blue line with wavy border] Canal/Ditch
 - [Blue shaded area] Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022

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Figure No.

1

Title

Noxious Weed Locations NPPD Princeton Road Power Station Branch Line

Client/Project 172609221

Northern Natural Gas
Central Mainline Corridor Expansion Project

Project Location
Precinct of Buola
Lancaster County, Nebraska

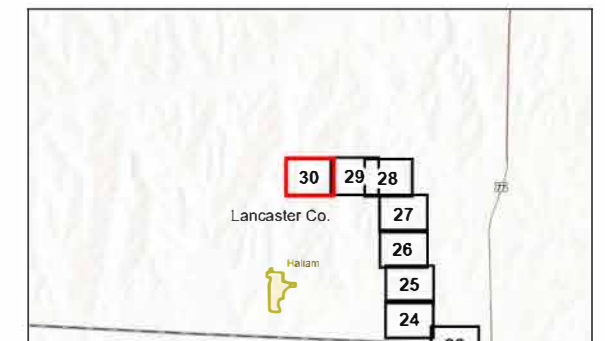
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TR by JM on 2026-02-27
IR by CS on 2026-03-20



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Legend

- Mile Post
- - - Proposed Pipeline
- [] Environmental Survey Boundary
- [] Environmental Survey Boundary To Be Surveyed
- [] Proposed Facility
- [] Permanent Access Road
- [] Temporary Workspace
- [] Extra Temporary Workspace
- [] Temporary Access Road
- [] Staging Area
- [] Field Delineated Waterway Line
- [] Field Delineated Waterway Area
- [] Field Delineated Wetland
- National Hydrography Dataset
- [] Perennial Stream
- [] Intermittent Stream
- [] Canal/Ditch
- [] Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2022



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Figure No.

1

Title

Noxious Weed Locations NPPD Princeton Road Power Station Branch Line

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

172609221

Project Location
Township of Highland
Lancaster & Gage Counties, Nebraska

Prepared by SF on 2026-02-27

TR by JM on 2026-02-27

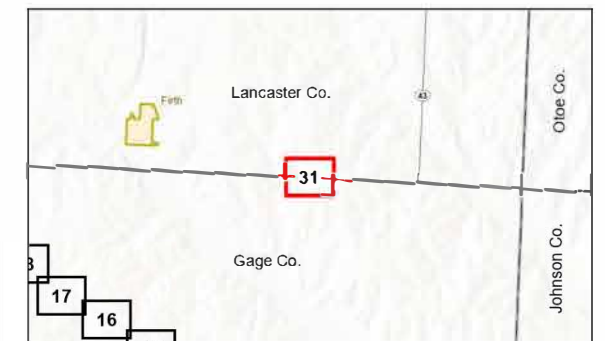
IR by CS on 2026-03-20



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(At original document size of 11x17)
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Legend

- Existing Pipeline
- Environmental Survey Boundary
- Extra Temporary Workspace
- National Hydrography Dataset**
- Perennial Stream
- Intermittent Stream
- Canal/Ditch
- Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2022



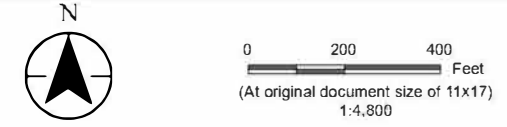
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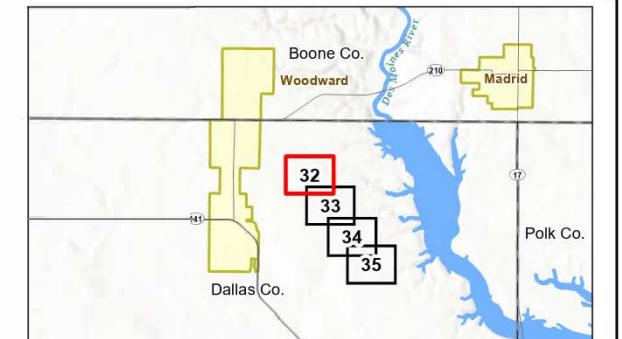
Figure No. **1**
 Title
**Noxious Weed Locations
 Des Moines C-Line Branch Line Extension**

Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project 172609221

Project Location
 Township of Des Moines
 Dallas County, Iowa
 Prepared by SF on 2026-02-27
 TR by JM on 2026-02-27
 IR by CS on 2026-03-20



- Legend
- Mile Post
 - Proposed Pipeline
 - Existing Pipeline
 - Environmental Survey Boundary
 - Existing Facility
 - Temporary Workspace
 - Extra Temporary Workspace
 - Temporary Access Road
 - Staging Area
 - ~ Field Delineated Waterway Line
 - ~ Field Delineated Waterway Area
 - ~ Field Delineated Wetland
 - National Hydrography Dataset
 - ~ Perennial Stream
 - ~ Intermittent Stream
 - ~ Canal/Ditch
 - ~ Waterbody



Notes
 1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2023

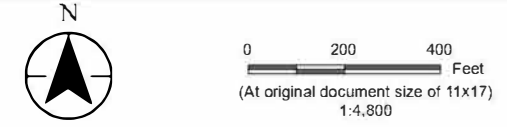
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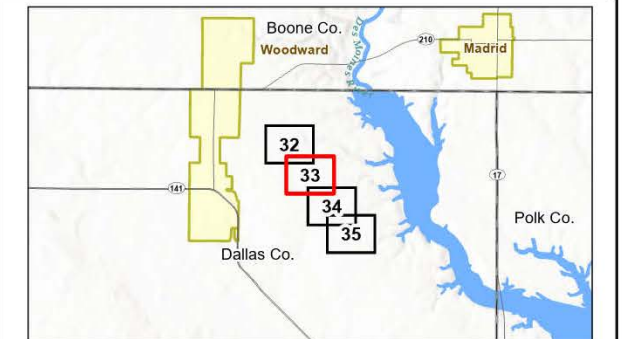
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Title
**Noxious Weed Locations
Des Moines C-Line Branch Line Extension**

Client/Project Northern Natural Gas 17260221
Central Mainline Corridor Expansion Project

Project Location Township of Des Moines Dallas County, Iowa Prepared by SF on 2026-02-27 TR by JM on 2026-02-27 IR by CS on 2026-03-20



- Legend
- Mile Post
 - Proposed Pipeline
 - Existing Pipeline
 - Environmental Survey Boundary
 - Temporary Workspace
 - Extra Temporary Workspace
 - Staging Area
 - Field Delineated Waterway Line
 - Field Delineated Waterway Area
 - Field Delineated Wetland
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2023

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Figure No.

1

Title

Noxious Weed Locations Des Moines C-Line Branch Line Extension

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

172609221

Project Location
Township of Des Moines
Dallas County, Iowa

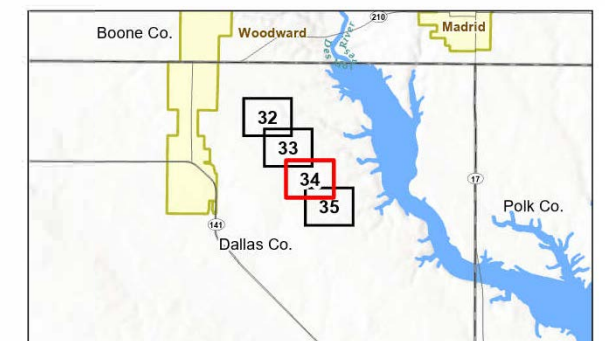
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TR by JM on 2026-02-27
IR by CS on 2026-03-20



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1:4,800

Legend

- Mile Post
- Proposed Pipeline
- ... Existing Pipeline
- ▭ Environmental Survey Boundary
- ▭ Temporary Workspace
- ▭ Extra Temporary Workspace
- ▭ Temporary Access Road
- ▭ Staging Area
- National Hydrography Dataset
- ~ Perennial Stream
- - Intermittent Stream
- - Canal/Ditch
- Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2023



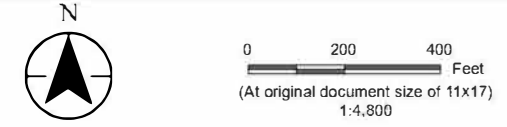
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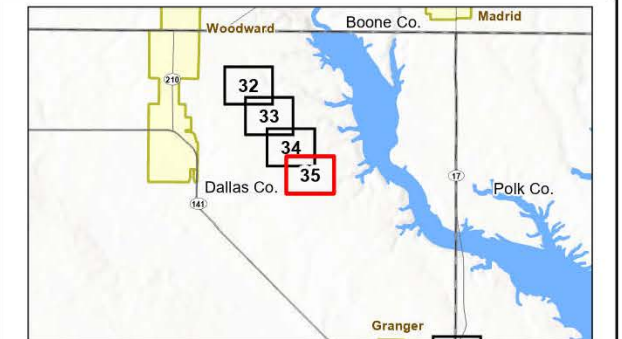
Figure No. 1
Title
**Noxious Weed Locations
Des Moines C-Line Branch Line Extension**

Client/Project Northern Natural Gas 172609221
Central Mainline Corridor Expansion Project

Project Location Township of Des Moines Dallas County, Iowa Prepared by SF on 2026-02-27 TR by JM on 2026-02-27 IR by CS on 2026-03-20



- Legend
- Mile Post
 - Proposed Pipeline
 - Existing Pipeline
 - Environmental Survey Boundary
 - Proposed Facility
 - Permanent Access Road
 - Temporary Workspace
 - Extra Temporary Workspace
 - Temporary Access Road
 - Staging Area
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2023

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Figure No.

1

Title

Noxious Weed Locations Des Moines C-Line South Loop Uprate - Royal Estates Reducing Station

Client/Project Northern Natural Gas 172609221
Central Mainline Corridor Expansion Project

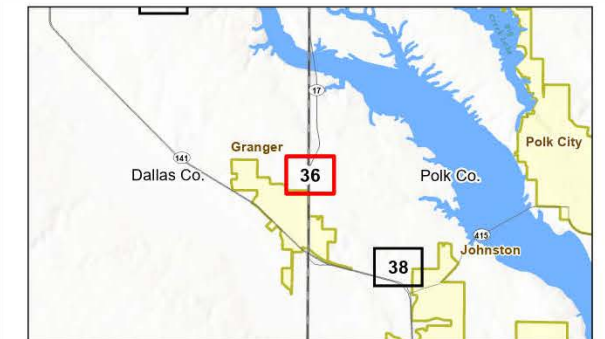
Project Location Townships of Grant & Jefferson Dallas & Polk Counties, Iowa Prepared by SF on 2026-02-27 TR by JM on 2026-02-27 IR by CS on 2026-03-20



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Legend

- Existing Pipeline
- Environmental Survey Boundary
- Existing Facility
- Temporary Workspace
- Extra Temporary Workspace
- National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2023



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Figure No.

1

Title

**Noxious Weed Locations
Des Moines C-Line South Loop Uprate -
Des Moines A-line Launcher Facility**

Client/Project Northern Natural Gas 17260221
Central Mainline Corridor Expansion Project

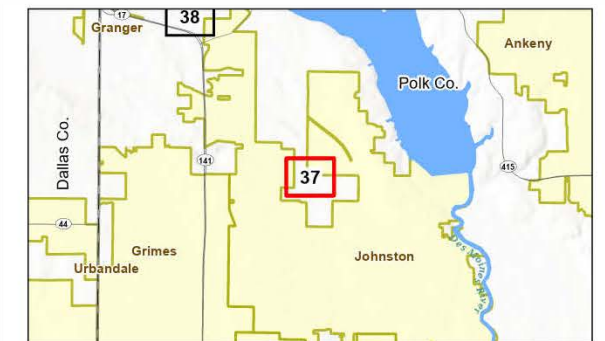
Project Location Township of Jefferson Polk County, Iowa
Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20



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Legend

- Existing Pipeline
- Environmental Survey Boundary
- Existing Facility
- Temporary Workspace
- Extra Temporary Workspace
- Field Delineated Wetland
- National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2023



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Figure No.

1

Title

Noxious Weed Locations Des Moines C-Line South Loop Uprate - Grimes Iowa TBS

Client/Project Northern Natural Gas 172609221
Central Mainline Corridor Expansion Project

Project Location
Township of Jefferson
Polk County, Iowa

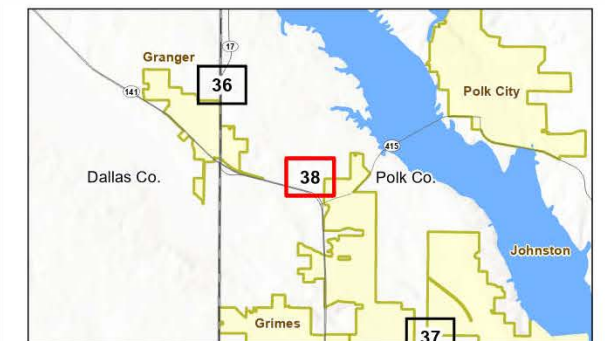
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TR by JM on 2026-02-27
IR by CS on 2026-03-20



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(At original document size of 11x17)
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Legend

- Existing Pipeline
- Environmental Survey Boundary
- Existing Facility
- Temporary Workspace
- National Hydrography Dataset
- Perennial Stream
- Intermittent Stream
- Canal/Ditch
- Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2023



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Figure No.

1

Title

Noxious Weed Locations Clarion Compressor Station

Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project

17260221

Project Location
 Township of Lake
 Wright County, Iowa

Prepared by SF on 2024-02-27

TR by JM on 2024-02-27

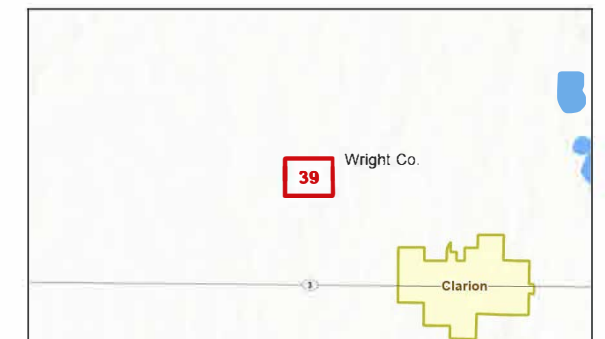
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Legend

- Existing Pipeline
- Environmental Survey Boundary
- Existing Facility
- Proposed Facility
- Permanent Access Road
- Extra Temporary Workspace
- Field Delineated Wetland
- National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2023



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Figure No.

1

Title

Noxious Weed Locations Beatrice Compressor Station

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

172609221

Project Location
Township of Riverside
Gage County, Nebraska

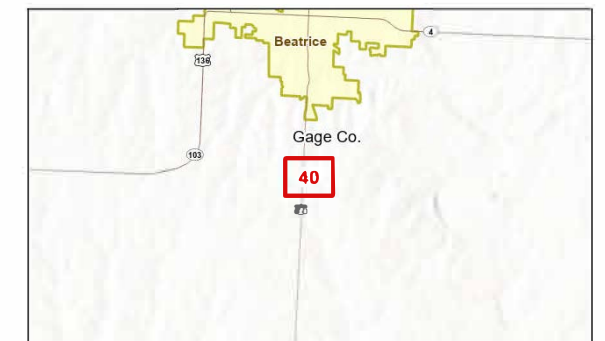
Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20



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Legend

- Existing Pipeline
- Environmental Survey Boundary
- Temporary Workspace
- Field Delineated Waterway Line
- Field Delineated Waterway Area
- Field Delineated Wetland
- National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2022



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Figure No.

1

Title

Noxious Weed Locations Guthrie Center Compressor Station

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project 172609221

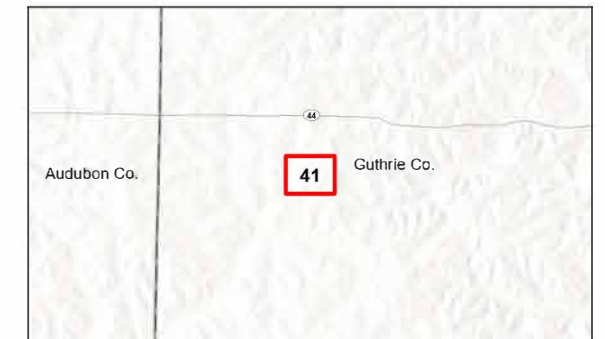
Project Location
Township of Bear Grove
Guthrie County, Iowa
Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20



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(At original document size of 11x17)
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Legend

- Existing Pipeline
- Environmental Survey Boundary
- Temporary Workspace
- Field Delineated Waterway Line
- Field Delineated Waterway Area
- National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2023



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Figure No.

1

Title

Noxious Weed Locations Oakland Compressor Station

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

172609221

Project Location
Township of Center
Pottawattamie County, Iowa

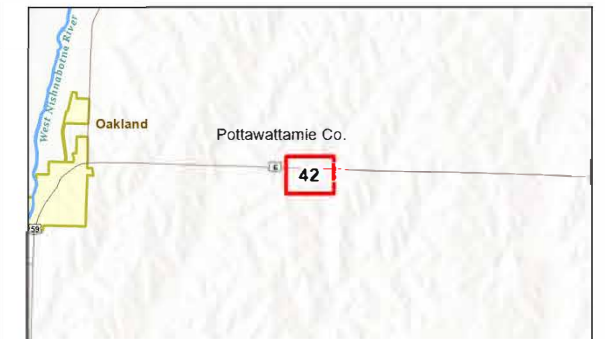
Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20



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Feet
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Legend

- Existing Pipeline
- Environmental Survey Boundary
- Temporary Workspace
- Field Delineated Waterway Line
- Field Delineated Waterway Area
- Field Delineated Open Water
- National Hydrography Dataset
- Perennial Stream
- Intermittent Stream
- Canal/Ditch
- Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2023



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Figure No.

1

Title

Noxious Weed Locations Ogdén Compressor Station

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

172609221

Project Location
Township of Yell
Boone County, Iowa

Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20



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Legend

- Existing Pipeline
- Environmental Survey Boundary
- Temporary Workspace
- National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2023



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Figure No.

1

Title

Noxious Weed Locations Palmyra Compressor Station

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

172609221

Project Location
Precinct of North Palmyra
Otoe County, Nebraska

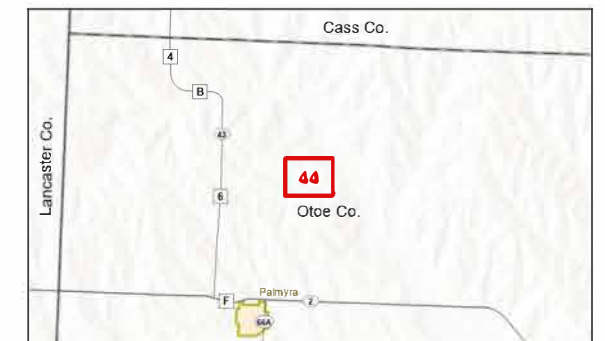
Prepared by SF on 2026-02-27
TR by JM on 2026-02-27
IR by CS on 2026-03-20



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Feet
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Legend

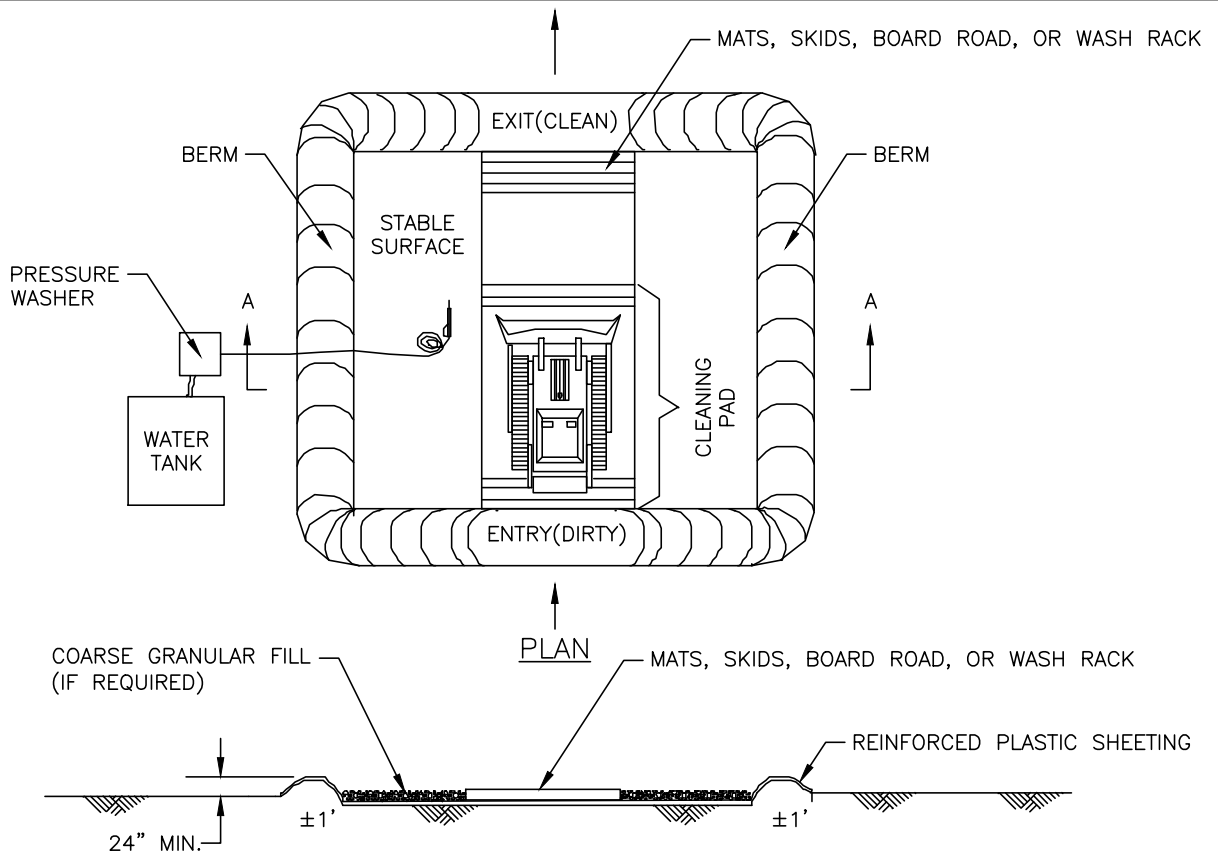
- Existing Pipeline
- Environmental Survey Boundary
- Temporary Workspace
- National Hydrography Dataset**
- Perennial Stream
- Intermittent Stream
- Canal/Ditch
- Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2022



Figure 2
Equipment Wash Station



WASH STATION NOTES:

SECTION A-A

1. ALL EQUIPMENT AND VEHICLES ARE REQUIRED TO BE WASHED AT WASH STATIONS LOCATED AS SHOWN ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE COMPANY'S INSPECTOR. WASH STATIONS SHALL BE CONSTRUCTED BY THE CONTRACTOR. WASHINGS SHALL BE CARRIED OUT UNDER THE SUPERVISION AND TO THE SATISFACTION OF THE COMPANY'S INSPECTOR.
2. WATER FROM THE EQUIPMENT WASH STATIONS WILL BE COLLECTED AND TRANSPORTED OFF-SITE TO AN APPROPRIATE DISPOSAL FACILITY. ANY SOILS CONTAMINATED BY PETROLEUM-BASED PRODUCTS OR NOXIOUS WEED MATERIALS FROM WASH STATIONS SHALL BE REMOVED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS.
3. SIZE OF STATION SHALL BE ADEQUATE TO ACCOMMODATE MAXIMUM SIZE OF EQUIPMENT EXPECTED AND REQUIRED WORK.
4. EQUIPMENT TO ENTER AT "DIRTY END" AND EXIT AT "CLEAN END".
5. GRAVEL FILL (IF REQUIRED) AND REINFORCED PLASTIC SHEETING SHALL BE REMOVED AND DISPOSED OF IN AN ACCEPTABLE LANDFILL.
6. WASH STATIONS SHALL BE EQUIPPED WITH SKID PADS, WASHED RACKS, MATS OR BOARD ROADS TO PREVENT SOIL FROM BEING CARRIED ON TRACKS OR TIRES AS EQUIPMENT AND VEHICLES EXIT THE WASH STATION.
7. DEPRESSION SHALL BE BACKFILLED WITH BERMED MATERIAL.
8. THE BERM SHALL BE CONSTRUCTED WITH SUBSOIL; TOPSOIL SHALL NOT BE USED.
9. IF THE CONTRACTOR DOES NOT SELECT AN ALTERNATE MEANS TO AVOID POTENTIAL CONTAMINATION BY NOXIOUS/INVASIVE PLANTS, THE CONTRACTOR SHALL UTILIZE A CLEANING STATION AS DEPICTED IN THIS TYPICAL.
10. ENTIRE EQUIPMENT WASH STATION WILL BE REMOVED BY CONTRACTOR ONCE WORK IN THE AREA IS COMPLETE.

FAC. CODE : N/A		REL. W.O. N/A
PL#:		CONST. YR
STA#	N/A	
	BY	DATE
DESIGN	ED	12/29/23
DRAWN	AC	12/29/23
ASBUILT		
FILE NO.: N/A		
SCALE: N/A		



NORTHERN LIGHTS 2025 EXPANSION
EQUIPMENT WASH STATION
(EWS)

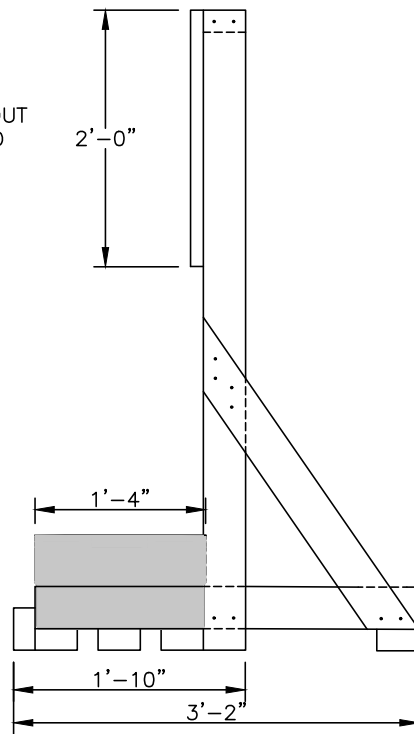
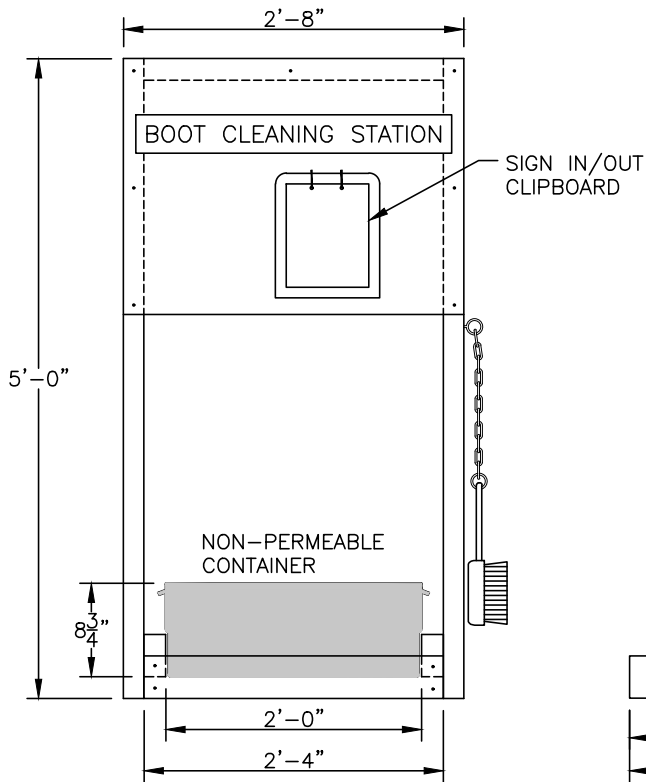
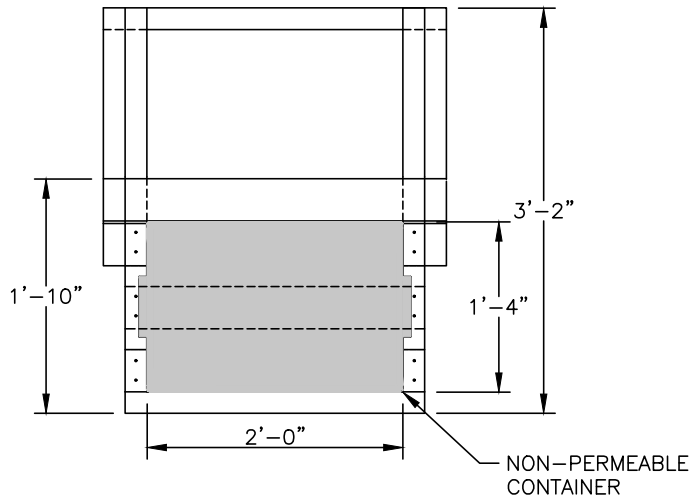


PROJECT NO.

DWG. NO.
FIGURE 2



Figure 3
Boot Cleaning Station



1. WASH STATIONS SHALL BE EQUIPPED WITH: A NON-PERMEABLE CONTAINER HOLDING WATER AND APPROVED CLEANING SOLUTION, SIGN IN CLIPBOARD, 5 GALLON BUCKET AND SCRUB BRUSH.
2. ALL PERSONS MUST UTILIZE THE BOOT WASH STATION BEFORE ENTERING AND EXITING HDD TRAVEL LANES (WITH NOXIOUS WEEDS PRESENT) LOCATED AS SHOWN ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE COMPANY'S INSPECTOR. BOOT CLEANING STATIONS WILL BE CONSTRUCTED BY THE CONTRACTOR. WASHINGS SHALL BE CARRIED OUT UNDER THE SUPERVISION AND THE SATISFACTION OF THE COMPANY'S INSPECTORS.
3. WASH WATER USED FOR CLEANING SHALL NOT BE ALLOWED TO ENTER ANY WATERBODY, WETLAND OR CANAL/DITCH. WATER SHALL BE DISPOSED OF AT AN APPROVED OFF-SITE DISPOSAL LOCATION.
4. CONTRACTORS WALKING THE HDD TRAVEL LANES MUST USE WASH STATION EACH TIME THEY ENTER AND EXIT A NOXIOUS WEED AREA. EACH USE SHALL BE RECORDED ON THE CLIPBOARD WITH THE NAME, COMPANY, DATE AND TIME.
5. ENTIRE BOOT CLEANING STATION WILL BE REMOVED BY CONTRACTOR ONCE WORK IN THE AREA IS COMPLETE.

FAC. CODE : N/A		REL. W.O. N/A
PL#:		CONST. YR
STA#	N/A	
	BY	DATE
DESIGN	ED	12/29/23
DRAWN	AC	12/29/23
ASBUILT		
FILE NO.: N/A		
SCALE: N/A		



NORTHERN LIGHTS 2025 EXPANSION
BOOT CLEANING STATION



PROJECT NO.

DWG. NO.
FIGURE 3



Appendix 3B

Agency Correspondence

Lillie, Jessica

From: Nebraskaes, FW6 <Nebraskaes@fws.gov>
Sent: Thursday, April 9, 2026 9:52 AM
To: Noland, Nathan
Subject: Automatic reply: [EXTERNAL] Central Mainline Corridor Expansion Project – Request for USFWS Technical Assistance (2026-0048562)

Thank you for contacting the electronic mailbox for the US Fish and Wildlife Service's Nebraska Ecological Services Field Office. Our office is responsible for providing conservation guidance for federal agencies and technical assistance to non-federal agencies and conservation partners.

Due to workload constraints, we have transitioned to all electronic communications and submission processes. This mailbox will be monitored by a staff member on a weekly basis. We strive to acknowledge most communications within 30 days of receipt, and official submissions within statutory guidelines.

To ensure that we can provide you the best service, all requests for assistance and project review packages will be required to include an Official Species List from the Information for Planning and Consultation (IPaC) website (see link in address block below) and must include all relevant project information. See our office webpage for guidance on the appropriate information required for processing (<https://www.fws.gov/office/nebraska-ecological-services/project-planning-and-review-under-endangered-species-act>)

Nebraska Field Office
U.S. Fish and Wildlife Service
9325 South Alda Road
Wood River, Nebraska 68883
NebraskaES@fws.gov

For a species list, visit <https://ecos.fws.gov/ipac/>

Office information <https://www.fws.gov/office/nebraska-ecological-services>

Caution: This email originated from outside of Stantec. Please take extra precaution.

Attention: Ce courriel provient de l'extérieur de Stantec. Veuillez prendre des précautions supplémentaires.

Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

Lillie, Jessica

From: Noland, Nathan
Sent: Thursday, April 9, 2026 9:46 AM
To: nebraskaes@fws.gov
Cc: Knabe, Susan; Terry Plucker (terry.plucker@nngco.com)
Subject: Central Mainline Corridor Expansion Project – Request for USFWS Technical Assistance (2026-0048562)
Attachments: CMC_Omaha 3rd BL Loop_Species List_Nebraska Ecological Services Field Office.pdf; Omaha_20260305 MA TA TRI_CLR_BAT_RW.pdf; CMC_Beatrice CS_Species List_Illinois-Iowa Ecological Services Field Office.pdf; Beatrice CS_20260305 NE TA TRI_CLR_BAT_RW.pdf; CMC_Omaha_RTE_FINAL_compiled_20260408.pdf; CMC_BeatriceCS_RTE_FINAL_Compiled_20260408.pdf; Platte_River_HDD plan and profile.pdf

Northern Natural Gas (Northern) is proposing its Central Mainline Corridor Expansion Project (Project) in Nebraska and Iowa. The Project includes the following components:

1. Install 9.03 miles of 20-inch-diameter Omaha 3rd branch line loop (Cass and Sarpy counties, Nebraska),
2. Install 14.64 miles of 30-inch-diameter NPPD Princeton Road power station branch line (Gage and Lancaster counties, Nebraska),
3. Install 2.48 miles extension of the 20-inch-diameter Des Moines C-line (Dallas County, Iowa),
4. Uprate of 6.83 miles of the 20-inch-diameter Des Moines C-line south loop (Polk County, Iowa),
5. Install new compressor station near Clarion, Iowa (Wright County, Iowa),
6. Modifications at Beatrice, Nebraska, compressor station allowing bidirectional flow (Gage County, Nebraska);
7. Modifications at Guthrie Center, Iowa, compressor station allowing bidirectional flow (Guthrie County, Iowa);
8. Modifications at Oakland, Iowa, compressor station allowing bidirectional flow (Pottawattamie County, Iowa);
9. Modifications at Ogden, Iowa, compressor station allowing bidirectional flow (Boone County, Iowa);
10. Modifications at Palmyra, Nebraska, compressor station allowing additional flow to an existing pipeline (Otoe County, Nebraska);
11. Install NPPD Princeton Road power station meter station (Lancaster County, Iowa)
12. Install aboveground facilities including a launcher, receiver, tie-in valve settings, and uprate ancillary equipment.

Northern also will utilize temporary workspace at its existing Palmyra compressor station, Ogden compressor station and Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve 5 Setting for temporary compression of the three pipeline installs.

On behalf of Northern, Stantec Consulting Inc. (Stantec) completed USFWS IPaC Official Species Lists and applicable Determination Keys for the Project components that involve new construction or facility modifications. Habitat assessments were completed concurrently with wetland delineations during summer/fall of 2025, and the results are provided in the Rare, Threatened, and Endangered Species (RTE) Reports. The IPaC reports and Determination Keys are included in our RTE reports provided for your review.

- Please note that I've only included the IPaC Official Species Lists, Determination Keys, and RTE reports associated with Project components we are requesting technical assistance on, for your review.

Regarding the Project schedule, Northern anticipates receiving a FERC notice to proceed with construction in late Spring 2027. All Project components are scheduled to begin construction June 2027. All Project components have an in-service date no later than November 1, 2027, with the exception of NPPD Princeton Road power station branch line, NPPD Princeton Road power station meter station and Clarion compressor station, which have an in-service date no later than April 1, 2029. Northern plans to complete tree clearing activities for the Omaha 3rd branch line loop in late August or September 2027 and fall/winter 2027 for the NPPD Princeton Road power station branch line. Tree clearing will not be required for the other Project components.

Based on the IPaC results, Northern requests USFWS technical assistance for the northern long-eared bat (NLEB), tricolored bat and piping plover. All other species received a “No Effect” or “Not Likely to Adversely Affect” determination, and no additional guidance is requested for those species.

Northern Long-Eared Bat and Tricolored Bat

The Omaha 3rd branch line loop received a “May Affect” determination for NLEB and tricolored bat due to approximately 0.88 acre of proposed tree removal during the active season for these species. Based on the habitat assessment results, areas included in the proposed tree removal acreage contain suitable NLEB and/or tricolored bat summer roosting and foraging habitat. The Beatrice compressor station received a “No Effect” determination for NLEB, and no other Project components include these species on the IPaC species lists.

Northern requests USFWS concurrence that completing tree removal for the Omaha 3rd branch line loop between late August and September 2027, outside the pup season, would support a *Not Likely to Adversely Affect* determination. If this measure is insufficient, Northern requests technical assistance to identify any additional measures or next steps needed to achieve a *No Effect* or *Not Likely to Adversely Affect* determination.

Piping Plover

The USFWS IPaC species list identifies piping plover as potentially occurring within the Omaha 3rd branch line loop. The Project will cross the Platte River via HDD approximately 1.75 miles west of Louisville, Nebraska. Habitat assessments identified potentially suitable piping plover habitat (i.e., sandbars, and shoreline) along the north bank of the Platte River, with proposed workspace located approximately 250 feet from the riverbank and the HDD pit approximately 0.2 mile north of the river. Northern will implement BMPs in accordance with FERC’s Plan and its Procedures, the Project-specific HDD Plan, and the SPCC Plan. Because construction may occur during the nesting season (April 15–August 15), Northern proposes to conduct surveys following the *Piping Plover and Interior Least Tern Survey Protocol*.

Northern requests USFWS technical assistance to confirm the need for piping plover surveys within a 0.25 mile of the north bank of the Platte River and concurrence on whether the proposed measures support a *No Effect* or *Not Likely to Adversely Affect* determination.

We appreciate your review of the attached materials and request your technical assistance regarding the species discussed above. Please contact us if you have any questions.

Thank you for your time and assistance.

Nathan

Associate, Environmental Scientist

Direct: (763) 479 4228

nathan.noland@stantec.com

Stantec

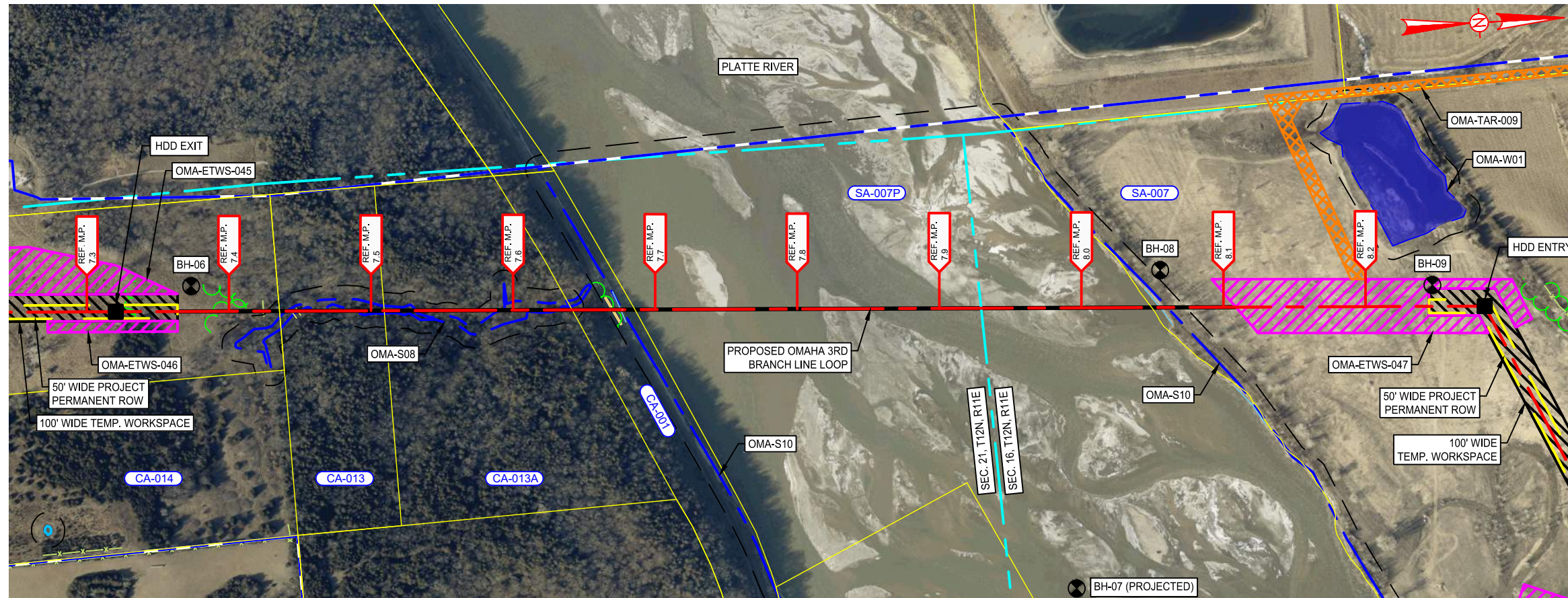
One Carlson Parkway North, Suite 100, Plymouth MN 55447-4440, United States



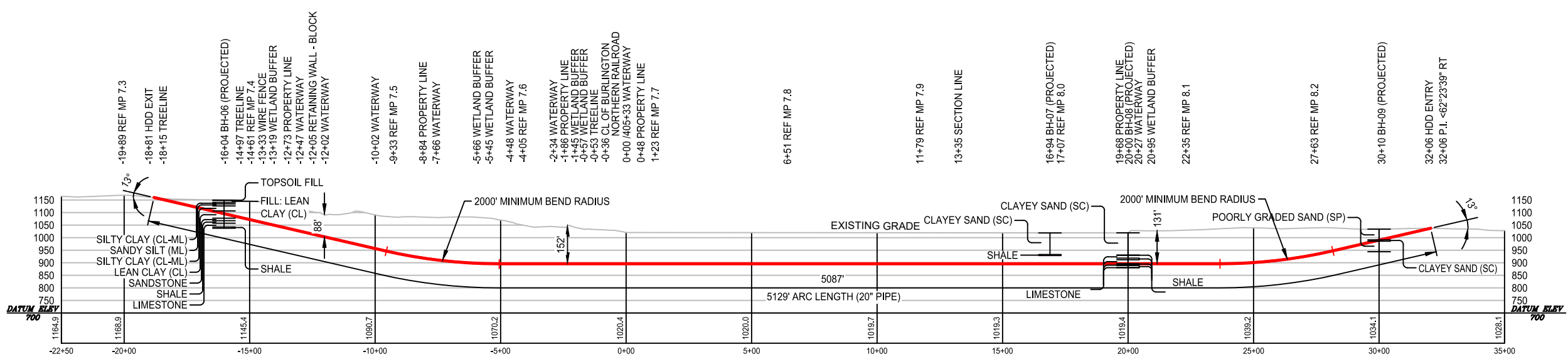
With every community, we redefine what's possible.

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PLAN & PROFILE PLATTE RIVER



PLAN
SCALE: 1"=240'
REF. DWG. OMA-P3-20 TO OMA-P3-22



PROFILE
SCALE (VERT): 1"=240'
SCALE (HORIZ): 1"=240'

Merial, Jeffrey, 4/6/2026 11:39 AM MINING CMO3_CROSSINGS/OMA PLAN & PROFILE.DWG

NO.	REVISION - DESCRIPTION	BY	DATE	CHK'D	APP'D
F	ISSUED FOR FERC	JM	4/17/26	ED	GC

FILED WITH FERC
ANY CHANGES FROM WHAT IS SHOWN MUST BE IDENTIFIED AND REVIEWED BY REGULATORY BEFORE IMPLEMENTATION

STATUS	CHECKED		APPROVED	
	BY	DATE	BY	DATE
PRELIM				
BID				
CONST.				

FAC. CODE: N/A	REL. W.O.: N/A
PL# N/A	CONST. YR 2027
STA# N/A	PO# N/A
DESIGN BY: ED	DATE: 2/23/26
DRAWN BY: JM	DATE: 2/26/26
ASBUILT	
FILE NO.:	
SCALE: 1"=240'	

CENTRAL MAINLINE CORRIDOR EXPANSION
OMAHA 3RD BRANCH LINE LOOP
PLAN & PROFILE PLATTE RIVER
SEC. 21 & 16, T12N, R11E
CASS & SARPY COUNTY, NEBRASKA

PROJECT NO.
DWG. NO. **OMA-P4-6**

Omaha 3rd Branch Line Loop and Beatrice Compressor Station

Habitat Assessment Reports

(Filed as CUI//PRIV – Do Not Release)

Included in Appendix 3C in the P&C Volume

Appendix 3C

Habitat Assessment Reports

Omaha 3rd Branch Line Loop

Habitat Assessment Report (Filed as CUI//PRIV - Do Not Release)

Included in the P&C volume

NPPD Princeton Road Power Station Branch Line

Habitat Assessment Report (Filed as CUI//PRIV - Do Not Release)

Included in the P&C volume

**Des Moines C-Line Branch Line Extension and
Des Moines C-Line South Loop Uprate**

Habitat Assessment Report (Filed as CUI//PRIV - Do Not Release)

Included in the P&C volume

Beatrice to Palmyra D-line and

Beatrice to Palmyra E-line Block Valve 5

Habitat Assessment Report (Filed as CUI//PRIV - Do Not Release)

Included in the P&C volume

Clarion Compressor Station

Central Mainline Corridor Expansion Project – Clarion Compressor Station – Rare, Threatened, and Endangered Species Report

Wright County, Iowa



Stantec Consulting Services Inc.

Prepared by:
Stantec Consulting Services Inc.
One Carlson Parkway North, Suite 100
Plymouth, Minnesota 55447-4440

Prepared for:
Terry Plucker
Northern Natural Gas
1111 South 103rd Street
Omaha, Nebraska 68124

April 7, 2026

Sign-off Sheet

This document entitled Central Mainline Corridor Expansion Project – Clarion Compressor Station – Rare, Threatened, and Endangered Species Report was prepared by Stantec Consulting Services Inc. (“Stantec”) for the account of Northern Natural Gas (the “Client”). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec’s professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by 
Mia Bauer, Environmental Scientist

Reviewed by 
Bruce Galer, PG, CMWP, Associate, Senior Environmental Scientist

Approved by 
Nathan Noland, Associate, Environmental Scientist

**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION –
RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

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CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

Acronyms List

BCR	Bird Conservation Region
BGEPA	Bald and Gold Eagle Protection Act
C	Celsius
ESB	Environmental Survey Boundary
ESA	Endangered Species Act
F	Fahrenheit
FERC	Federal Energy Regulatory Commission
IBA	Important Bird Area
IDNR	Iowa Department of Natural Resources
IPaC	Information for Planning and Consultation
MBTA	Migratory Bird Treaty Act
NABCI	North American Bird Conservation Initiative
Northern	Northern Natural Gas
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
PERMT	Permit and Environmental Review Management Tool
Project	Central Mainline Corridor Expansion Project – Clarion Compressor Station
ROW	Right-of-way
RTE	Rare, threatened, or endangered
Stantec	Stantec Consulting Services Inc.
USC	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

1.0 Introduction

Stantec Consulting Services Inc. (Stantec) prepared this rare, threatened, and endangered (RTE) species report for the proposed Central Mainline Corridor Expansion Project – Clarion compressor station (Project) located within Wright County, Iowa. The work was conducted at the request of Northern Natural Gas (Northern) in order to facilitate compliance with the Endangered Species Act (ESA) of 1973 (16 United States Code [USC] A-1535-1543, P. L. 93-205), as amended, and for the Chapter 481B of the Code of Iowa – Endangered Plants and Wildlife (Iowa Code Annotated § 481B.1 – 10).

This report describes the methods used to conduct the RTE species habitat assessment and discusses the results of the investigation. This report does not serve as a Project clearance letter for the above referenced Project but provides a professional opinion on the potential for Project construction activities to affect federally and state listed RTE species known to inhabit Wright County, Iowa.

1.1 PROJECT DESCRIPTION

1.1.1 Overview

Northern owns and operates a natural gas transmission pipeline system, including pipeline and associated aboveground facilities in Iowa and Nebraska. Northern is filing an application with the Federal Energy Regulatory Commission (FERC) pursuant to Section 7 of the Natural Gas Act. The Project involves the construction of three new pipeline extensions consisting of approximately 26.15 miles of 20-inch- and 30-inch-diameter pipelines and associated aboveground compressor stations and other facilities in Iowa and Nebraska.

1.1.2 Clarion Compressor Station

The remainder of this RTE report will focus on the Clarion compressor station.

Northern proposes to construct and operate an ISO-rated 20,500-HP greenfield compressor station in Section 22, Township 92 North, Range 25 West, Wright County, Iowa. The proposed facility will be adjacent to Northern's existing Ogden to Ventura pipeline valve 7 setting. The station will be connected to Northern's existing 24-inch-diameter Ogden to Ventura B line, 30-inch-diameter Ogden to Ventura C line and 30-inch-diameter Ogden to Ventura D line via below-grade valve settings. The greenfield compressor will require approximately 10.11 acres of land for construction.. The facility will occupy approximately 7.34 acres including the existing facility. A new 20-foot-wide permanent driveway constructed of gravel will be utilized to access the facility from 200th Street for construction and operation.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

2.0 Methods

Stantec conducted a desktop review for RTE species, United States Fish and Wildlife Service (USFWS) designated critical habitat, and potential for suitable habitat within the Northern-defined ESB based on review of USFWS database information and correspondence with the Iowa Department of Natural Resources (IDNR). Field surveys were used to confirm and supplement the desktop review and were used to assess possible presence of individuals or populations of protected species and species of conservation concern, as well as suitable habitat for those species as part of the wetland delineation throughout the ESB. Northern's ESB encompasses all proposed workspaces and typically provides a minimum of a 50-foot clearance buffer around workspaces.

2.1 DESKTOP ASSESSMENT

A desktop study of the ESB was completed in November 2025 and updated in February 2026. The desktop assessment included review of aerial imagery, USFWS National Wetlands Inventory (NWI) maps, the USFWS Information for Planning and Consultation (IPaC) tool (USFWS 2025), the IDNR Permit and Environmental Review Management Tool (PERMT) (IDNR 2026), state wildlife agency websites, and other available literature. Stantec biologists reviewed the aforementioned information to identify and become familiar with the natural features and listed species most likely to be encountered in within the ESB for the Project component (Project area). The USFWS Species List from IPaC is included in Appendix C.1 and the correspondence with the IDNR is included in Appendix C.2.

In preparation for field surveys, the USFWS IPaC tool was accessed to obtain an official list of federally listed RTE species, proposed, and candidate species and federally designated critical habitat that may be present within the ESB.

2.2 FIELD SURVEYS

Stantec conducted field surveys concurrent within the wetland delineations in November 2025 for presence of suitable habitats for RTE species, raptor stick-nests, and the presence/absence of raptors, including eagles, within vicinity of the Project. Field crews reviewed the list of protected species identified as having the potential to occur within the ESB and one-mile buffer of Project boundary. In addition, the field crews reviewed the applicable fact sheets for specific habitat requirements and identification criteria for the potential species. The field surveys consisted of pedestrian inspections to evaluate the presence/absence of suitable habitat and potential presence of listed species within the ESB.

To support the development of site descriptions, vegetation characterizations, and evaluations of potential RTE species suitable habitats, the field crew documented existing upland and wetland vegetative communities, and land cover characteristics present within the ESB. A photographic log showing representative vegetation communities is included as Appendix B.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

2.3 SPECIES EVALUATIONS

The potential for occurrence of each species within the Project area was summarized according to the categories listed below. Potential for occurrence categories are as follows.

- **Known to occur**—the species has been documented in the Project area by a reliable observer.
- **May occur**—the Project area is within the species' currently known range, and vegetation communities, soils, etc. , resemble those known to be used by the species.
- **Unlikely to occur**—the Project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species, or the Project area is clearly outside the species' currently known range.
- **Does not occur**—the species does not occur in the Project area.

Those species listed by the USFWS and IDNR were assigned to one of three categories of possible effect. The effects determinations include the following.

- **May affect, and is likely to adversely affect** — adverse effects to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial.
- **May affect, but not likely to adversely affect** — the proposed action may affect listed species and/or critical habitat; however, the effects are expected to be discountable, insignificant, or completely beneficial.
- **No effect** — the proposed action will not affect listed species or critical habitat.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

3.0 Results

3.1 ECOLOGICAL OVERVIEW

The Project area lies within Major Land Resource Area (MLRA) 103 – Central Iowa and Minnesota Till Prairies. This region of the MLRA lies in the transition zone from mixed forest (the Big Woods) to the northeast and prairie towards the southwest, with occasional savannas around the perimeter of the Big Woods and along waterways. Topography is nearly level to rolling. (Natural Resources Conservation Service [NRCS] 2022).

The average annual precipitation in this region is 24 to 37 inches (619 to 929 millimeters). This area is geologically young, and natural drainage is not well developed. Hydric soils dominate nearly half of this region and are frequently altered by drain tile. Moderate to heavy snowfall is common in winter. Average annual temperatures range from 43 to 50 degrees F (6 to 10 degrees C). The freeze-free period averages about 155 days and ranges from 140 to 180 days (NRCS 2022).

3.2 VEGETATION

Land use within the Central Iowa and Minnesota Till Prairies is approximately 76% active or fallow cropland, 5% herbaceous wetlands, 5% grassland/pasture, 6% urban development, 4% forest, 2% water and 2% other land uses. Where grasslands still occur, dry areas are characterized by little bluestem (*Schizachyrium scoparium*), porcupine grass (*Hesperostipa spartea*), and side-oats grama (*Bouteloua curtipendula*). Sloping prairie areas are typically dominated by lead plant (*Amorpha canescens*), Indiangrass (*Sorghastrum nutans*), big bluestem (*Andropogon gerardii*), and prairie dropseed (*Sporobolus heterolepis*). Wetter areas contain sedges (*Carex* spp.), switchgrass (*Panicum virgatum*), Canada bluejoint (*Calamagrostis canadensis*), prairie cordgrass (*Spartina pectinata*), broadleaf cattail (*Typha latifolia*), and river bulrush (*Bolboschoenus fluviatilis*). Savanna regions contain similar vegetation to the grasslands but also include fire-tolerant woody vegetation such as bur oak (*Quercus macrocarpa*) and aspens (*Populus* spp.) (NRCS 2022).

3.2.1 Land Cover Types

During field surveys, Stantec identified four general land cover types within the Project area. Using observations of vegetative cover, hydrology, and/or the presence of developed structures – land in the Project area was classified as agriculture, open land/grasslands, wetlands, or industrial/commercial. General descriptions of the land cover types encountered in the Project area are as follows.

- **Agricultural Land** – including active cropland (including specialty crop or turf grass production), cropland that had recently been plowed, areas that had been harvested, and fallow or idle areas that appeared to be regularly used to grow agricultural crops.
- **Open Land Prairie/Grassland** – including non-forested herbaceous uplands, rangeland, scrub-shrub land, areas that were being used to grow hay, non-agricultural fields and/or

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

other herbaceous areas that are dominated by a mixture of mid-grass or short-grass species. The vegetation also includes mowed areas and areas of mixed weeds and grass along roadsides.

- **Wetlands** – including areas dominated by wetland vegetation and exhibiting hydric soils and wetland hydrology, including those that are farmed. Wetland types include emergent wetlands, scrub-shrub wetlands and forested wetlands.
- **Industrial/Commercial Land** – including electric power or gas utility right of way (ROW) or corridors, manufacturing or industrial plants, landfills, mines, quarries, commercial or retail facilities and roads.

3.2.2 Vegetation Communities

Stantec identified three general types of vegetation communities within the Project area, identified below. Industrial/commercial land is not included within the list, as vegetation was not used to determine land use type.

- **Agricultural Land** – Portions of the ESB consisted of actively cultivated fields. During field surveys conducted for the Project component, the Project area contained cultivated crop land planted in corn (*Zea mays*).
- **Open Land/Grassland** – Open Land/Grassland areas within the ESB consisted of roadside ROW. Common species within ROW included smooth brome (*Bromus inermis*), yellow foxtail (*Setaria pumila*), and common purslane (*Portulaca oleracea*).
- **Wetland** – Wetland types observed in the ESB included farmed wetlands. Farmed wetland communities were dominated by rough-fruited waterhemp (*Amaranthus tuberculatus*), fall panic grass (*Panicum dichotomiflorum*), curly dock (*Rumex crispus*), and stunted/stressed corn were also present.

3.3 SPECIES EVALUATION

A review of federally and state-protected species, species of conservation concern, associated habitats, and other rare natural features that are known to occur within one mile of the Project ESB was conducted as described in Section 2.1. Information provided by the USFWS Illinois-Iowa Ecological Services Field Office and correspondence with the IDNR through PERMT was included in the review of the Project component for potential impacts on these resources (see Appendix C.1 and C.2).

The federally and state-listed species with suitable habitat and/or potential to occur within the Project area are discussed below.

3.3.1 Federally Listed Species

Stantec obtained an official IPaC species list (Project Code: 2026-0048495) from the USFWS Illinois-Iowa field office on February 11, 2026 (Appendix C.1). The USFWS determined the following federally listed species may occur in the proposed Project area or may be affected by the proposed Project component actions in Iowa:

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

- Topeka Shiner (*Notropis topeka*) - Endangered
- Monarch Butterfly (*Danaus plexippus*) – Proposed threatened

These species and their habitat requirements are described below.

Topeka Shiner

The Topeka shiner is a small freshwater minnow that commonly inhabits slow-moving streams and oxbow lakes with clean gravel or sand substrates and abundant aquatic vegetation (USFWS 2026). No waterways or waterbodies are present within the Project area. Therefore, the Topeka shiner does not occur within the Project area. Stantec has determined that the Project will have no effect on the Topeka shiner due to the lack of suitable habitat within the Project area. The USFWS does not provide a determination key for the Topeka shiner in this region. Since a no effect determination was made, no further consultation with the USFWS is required.

Monarch Butterfly

The monarch butterfly is a migratory butterfly that exists in two main populations within the United States divided by the Rocky Mountains: the eastern population that overwinters in the mountains of Mexico, and the western population that overwinters along the southern Pacific coast of California (USDA Forest Service undated). Monarch butterflies are a widespread species found in fields, prairies, savannahs, and most places where milkweed (*Asclepias* spp.), their host plant, occurs throughout the United States and southern Canada. This species generally occurs in areas with high densities of nectar sources, preferably those of native prairies. During late summer and migration, adults use nectar species such as black-eyed Susan (*Rudbeckia hirta*), narrow-leaved coneflower (*Echinacea angustifolia*), and rough blazing star (*Liatris aspera*) (MDNR 2026). However, the presence of milkweed is required for the survival of caterpillars, as it is the only plant on which they can feed (National Wildlife Federation undated).

During the November field surveys, Stantec did not observe milkweed, nectar sources, or individual monarch butterflies within the Project area (Figure 2, Appendix A). Therefore, the monarch butterfly is unlikely to occur in the Project area.

Northern is committed to the restoration and preservation of pollinator habitat. Northern joined the USFWS Nationwide Monarch Butterfly Candidate Conservation Agreement on Energy and Transportation Lands in 2020. As part of this Project component, Northern will utilize pollinator friendly plant seed mixtures within Northern owned properties, where feasible. Northern will offer landowners the option of utilizing pollinator friendly seed mixtures on privately owned lands within the Project workspaces where temporary impacts occur.

Stantec has determined that the Project component will not jeopardize the continued existence of the monarch butterfly and that the Project component will have no effect on this species. Additionally, the monarch butterfly is proposed for listing as threatened by the USFWS with a 4(d) Rule. The USFWS does not provide a determination key for the monarch butterfly in this region. Since a no effect determination was made, no further consultation with the USFWS is required.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

3.3.2 State-Listed Species

Stantec used the IDNR PERMT in March 2026 to access information on state-listed species with potential to occur in the Project area. According to review by the IDNR, no state-listed species records or significant natural communities were identified within the Project area. No further consultation with IDNR is required. This correspondence with the IDNR is included in Appendix C.2.

3.4 MIGRATORY BIRDS

The USFWS states that bald eagles (*Haliaeetus leucocephalus*) may occur within the Project area. Bald and golden eagles (*Aquila chrysaetos*) are regulated by the Bald and Golden Eagle Protection Act (BGEPA). The Project component is located primarily within active agricultural crop land and Northern's existing facility. Stantec completed raptor stick-nest surveys in November 2025, and no eagle or raptor nests were identified within or within the vicinity of the Project area. In addition, no tree clearing will occur for the Project component. Therefore, the Project component is anticipated to have no effect on bald eagles.

The North American Bird Conservation Initiative (NABCI) maintains a list of Bird Conservation Regions (BCRs) (NABCI 2021). A BCR is an ecologically distinct region in North America with similar bird communities, habitats and resource management issues. There are 66 BCRs in North America. The Project area will be in BCR 11 – the Prairie Pothole region. The USFWS Birds of Conservation Concern 2021 report (USFWS 2021) identifies 33 Birds of Conservation Concern within BCR 11.

Based on review of the USFWS IPaC Species list (USFWS 2025) for the ESB in Wright County, there are five Birds of Conservation Concern identified that may occur within the ESB. The protection of migratory birds is regulated by the Migratory Bird Treaty Act (MBTA). Any activity, intentional or unintentional, that results in take of migratory birds is prohibited unless otherwise permitted by the USFWS. Depending on the timing of construction, and although the Project component comprises mostly of active agricultural land and Northern's existing facility, the Project component may potentially affect nests, eggs, and/or young birds protected under the MBTA. Therefore, pre-construction nest surveys are recommended if vegetation disturbance will occur within nesting seasons for migratory birds to avoid incidental take of nesting birds protected under the MBTA. The nest survey will determine the absence or presence of breeding birds and their nests. Pre-construction nest surveys should be completed according to the following procedures.

- No more than seven days before construction activities commence, pre-construction nest surveys for migratory birds will be completed by a qualified avian biologist. The area surveyed will include the proposed workspaces or areas where potentially suitable habitat has been identified.
- If an occupied (non-eagle) raptor nest is observed during the survey, construction activities will not be permitted within 100-foot buffer of it to avoid incidental take of protected raptor species. Furthermore, construction activities will not be permitted within a 660-foot buffer of any eagle nest site during the breeding season or until the fledglings have left the area. Northern will complete consultation with the USFWS, IDNR if an active raptor nest are observed, as required.

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- If a nest, other than a raptor nest is observed during the survey, construction activities will not be permitted within a 15- to 30-foot buffer of the nest depending on the species and vertical offset from the nest.
- Upon completion of the nest surveys, the survey results will be submitted to the USFWS, IDNR, as appropriate. If breeding birds are not present, construction can proceed with no restrictions. If breeding birds or active nests are present, additional consultation will be completed, as required.

Important Bird Areas (IBAs) are discrete sites that provide essential habitat for one or more bird species and include habitat for breeding, wintering, and/or migrating birds (Audubon 2021). The Project area does not cross an IBA. The nearest IBA to the Project area is the Zirbel Slough IBA, approximately 30 miles northeast of the Project area. Therefore, impacts to IBAs are not anticipated, as a result of the Project component.

3.4.1 County, State and Federal Lands

No county, state, or federal lands were identified within the Project area.

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4.0 Summary and Conclusions

Stantec performed a review of federally and state-protected species that may occur within the Project ESB. Based on the review, Stantec identified two federally listed species, the Topeka shiner and monarch butterfly, that could occur within Wright County, Iowa.

Based on proposed Project component work, the desktop review and onsite habitat assessment conducted during the November 2025 field surveys, the Project component was determined to have no effect on the monarch butterfly and Topeka shiner. Additionally, the Project component is anticipated to have no effect on migratory birds and/or bald eagles, or IBAs; and no federally designated critical habitats occur within the Project area.

Review of state-listed species from the IDNR stated that no state-listed species records or significant natural communities were identified within the Project area. Additionally, no federally designated critical habitats or county, state, or federal lands occur within the Project area. No further consultation with USFWS or IDNR is required.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

5.0 Limitations and Warranty

Within the limitations of schedule, budget, and scope of work, Stantec warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species' listing status in effect at the time this evaluation was performed.

The results and conclusions of this report represent the best professional judgment of Stantec scientists. No other warranty, expressed or implied, is made. Please be aware that only the USFWS and/or lead federal agency can determine compliance with the ESA.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

6.0 References

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**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION –
RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

Appendix A Figures

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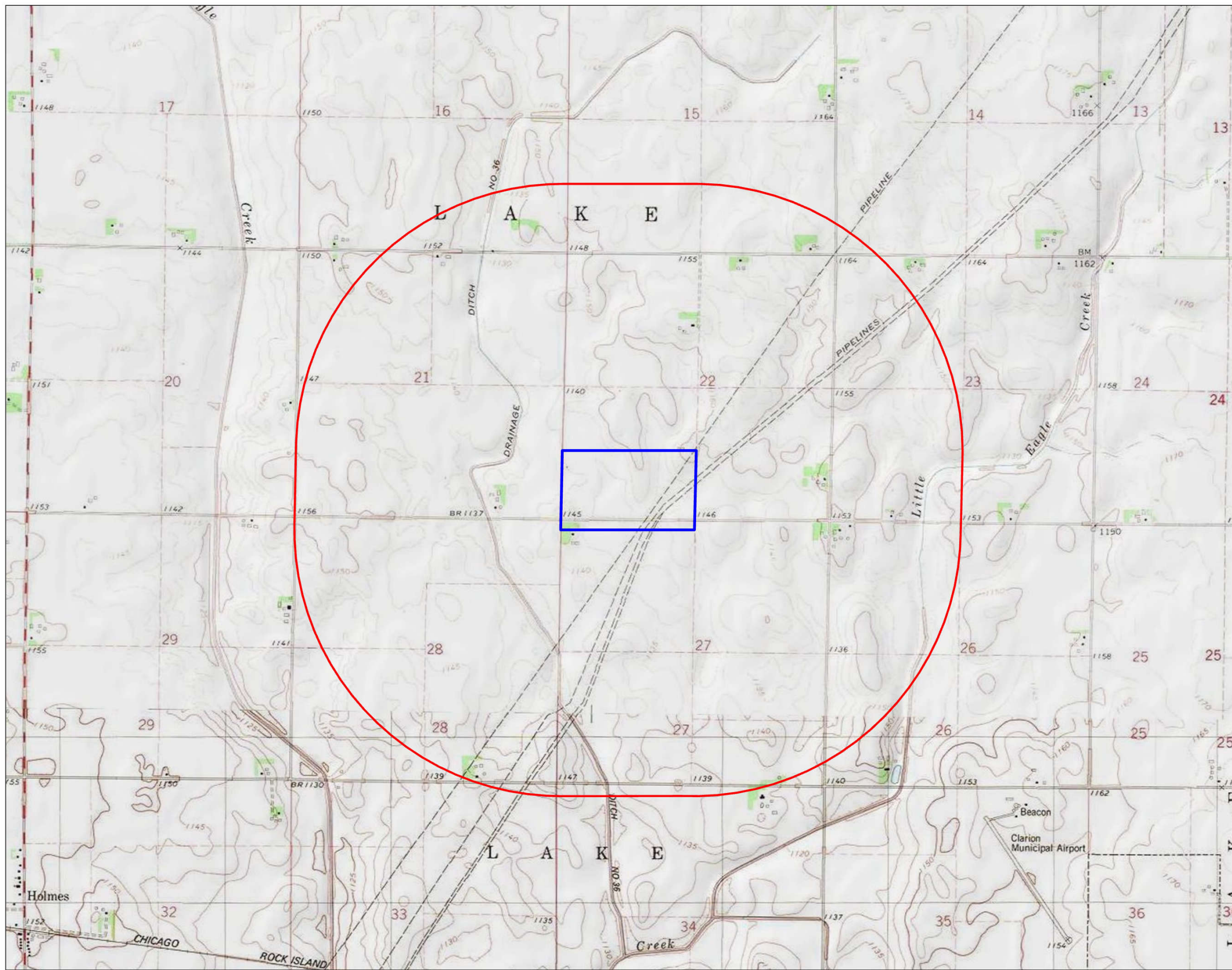
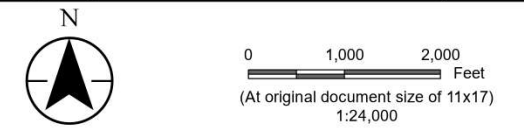

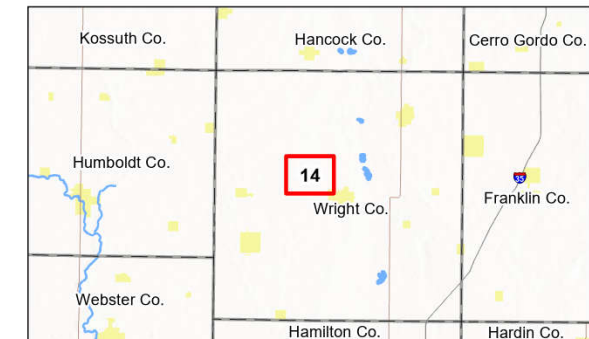


Figure No. **1**
 Title **Project Location & 1-Mile Buffer Clarion Compressor Station**
 Client/Project Northern Natural Gas 172609221
 Central Mainline Corridor Expansion Project

Project Location Township of Lake Wright County, Iowa
 Prepared by JM on 2026-02-10
 TR by SF on 2026-02-12
 IR by SK on 2026-03-20



Legend
 Environmental Survey Boundary
 1-Mile Buffer



Notes
 1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: USGS 7.5' Topographic Quadrangles

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Figure No.

2

Title

Rare, Threatened, & Endangered Species Report Clarion Compressor Station

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

172609221

Project Location
Township of Lake
Wright County, Iowa

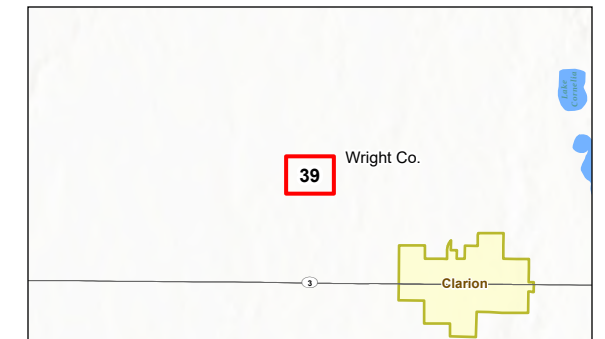
Prepared by JM on 2026-02-09
TR by SF on 2026-02-27
IR by SK on 2026-03-23



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(At original document size of 11x17)
1:4,800

Legend

- Existing Pipeline
- Environmental Survey Boundary
- Existing Facility
- Proposed Facility
- Permanent Access Road
- Extra Temporary Workspace
- TE Species
- Culvert
- Field Delineated Wetland
- National Hydrography Dataset
- Perennial Stream
- Intermittent Stream
- Canal/Ditch
- Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2023



**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION –
RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

Appendix B Photographs



Photo 1. General view of a farmed wetland community, photo taken facing north.



Photo 2. General view of a farmed wetland community, photo taken facing north.



Photo 3. General view of a farmed wetland community, photo taken facing south.



Photo 4. General view of a farmed wetland community, photo taken facing north.



Photo 5. General view of a farmed wetland community, photo taken facing north.



Photo 6. General view of a farmed wetland community, photo taken facing west.



Photo 7. General view of a farmed wetland community, photo taken facing north.



Photo 8. General view of a farmed wetland community, photo taken facing south.



Photo 9. General view of a farmed wetland community, photo taken facing north.



Photo 10. General view of a farmed wetland community, photo taken facing west.



Photo 11. General view of harvested corn field, photo taken facing west.



Photo 12. General view of harvested corn field, photo taken facing south.



Photo 13. View of maintained rights-of-way (ROW), photo taken facing east.



Photo 14. View of Northern's existing Ogden to Ventura pipeline valve 7 setting, photo taken facing north.

**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION –
RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

Appendix C Endangered Species Lists and Agency Consultation

C.1 USFWS IPAC LIST OF SPECIES

Scientific Name	Common Name	Federal Listing	State Listing	State Rank ¹	Global Rank ²
Fish					
<i>Notropis topeka</i>	Topeka Shiner	Endangered	Threatened	S2	G3
Insects					
<i>Danaus plexippus</i>	Monarch Butterfly	Proposed Threatened	None	S5	G4

¹ State Ranks: S1=critically imperiled S2=imperiled, S3=vulnerable to extirpation, S4=apparently secure, S5=secure, SX=presumed extirpated

² Global Ranks: G1=critically imperiled, G2=imperiled, G3=very rare and found locally G4=apparently secure, G5=secure.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
Phone: (309) 757-5800 Fax: (309) 757-5807

In Reply Refer To:

02/11/2026 16:38:52 UTC

Project Code: 2026-0048495

Project Name: Central Mainline Corridor - Clarion Compressor Station

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat, if present, within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) **the accuracy of this species list should be verified after 90 days**. This verification can be completed formally or informally. You may verify the list by visiting the ECOSPHERE Information for Planning and Consultation (IPaC) website <https://ipac.ecosphere.fws.gov> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list.

Section 7 Consultation

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the U.S. Fish and Wildlife Service (Service) if they determine their project "may affect" listed species or designated critical habitat. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action may affect endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service to make "no effect" determinations. If you determine that your proposed action will have no effect on threatened or endangered species or their respective designated critical habitat, you do not need to seek concurrence with the Service.

Note: For some species or projects, IPaC will present you with *Determination Keys*. You may be able to use one or

more Determination Keys to conclude consultation on your action.

Technical Assistance for Listed Species

1. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain information on the species life history, species status, current range, and other documents by selecting the species from the thumbnails or list view and visiting the species profile page.

No Effect Determinations for Listed Species

1. If there are *no* species or designated critical habitats on the Endangered Species portion of the species list: conclude "no species and no critical habitat present" and document your finding in your project records. No consultation under ESA section 7(a)(2) is required if the action would result in no effects to listed species or critical habitat. Maintain a copy of this letter and IPaC official species list for your records.
2. If any species or designated critical habitat are listed as potentially present in the **action area** of the proposed project the project proponents are responsible for determining if the proposed action will have "no effect" on any federally listed species or critical habitat. No effect, with respect to species, means that no individuals of a species will be exposed to any consequence of a federal action or that they will not respond to such exposure.
3. If the species habitat is not present within the action area or current data (surveys) for the species in the action area are negative: conclude "no species habitat or species present" and document your finding in your project records. For example, if the project area is located entirely within a "developed area" (an area that is already graveled/paved or supports structures and the only vegetation is limited to frequently mowed grass or conventional landscaping, is located within an existing maintained facility yard, or is in cultivated cropland conclude no species habitat present. Be careful when assessing actions that affect: 1) rights-of-ways that contains natural or semi-natural vegetation despite periodic mowing or other management; structures that have been known to support listed species (example: bridges), and 2) surface water or groundwater. Several species inhabit rights-of-ways, and you should carefully consider effects to surface water or groundwater, which often extend outside of a project's immediate footprint.
4. Adequacy of Information & Surveys - Agencies may base their determinations on the best evidence that is available or can be developed during consultation. Agencies must give the benefit of any doubt to the species when there are any inadequacies in the information. Inadequacies may include uncertainty in any step of the analysis. To provide adequate information on which to base a determination, it may be appropriate to conduct surveys to determine whether listed species or their habitats are present in the action area. Please contact our office for more information or see the survey guidelines that the Service has made available in IPaC.

May Effect Determinations for Listed Species

1. If the species habitat is present within the action area and survey data is unavailable or inconclusive: assume the species is present or plan and implement surveys and interpret results in coordination with our office. If assuming species present or surveys for the species are positive continue with the may affect determination process. May affect, with respect to a species, is the appropriate conclusion when a species might be exposed to a consequence of a federal action and could respond to that exposure. For critical habitat, 'may affect' is the appropriate conclusion if the action area overlaps with mapped areas of critical habitat and an essential physical or biological feature may be exposed to a consequence of a federal action and could change in response to that exposure.
2. Identify stressors or effects to the species and to the essential physical and biological features of critical habitat that overlaps with the action area. Consider all consequences of the action and assess the potential for each life stage of the species that occurs in the action area to be exposed to the stressors. Deconstruct the action into its component parts to be sure that you do not miss any part of the action that could cause effects to the species or physical and biological features of critical habitat. Stressors that affect species' resources may have consequences even if the species is not present when the project is implemented.
3. If no listed or proposed species will be exposed to stressors caused by the action, a 'no effect' determination may be appropriate – be sure to separately assess effects to critical habitat, if any overlaps with the action

area. If you determined that the proposed action or other activities that are caused by the proposed action may affect a species or critical habitat, the next step is to describe the manner in which they will respond or be altered. Specifically, to assess whether the species/critical habitat is "not likely to be adversely affected" or "likely to be adversely affected."

4. Determine how the habitat or the resource will respond to the proposed action (for example, changes in habitat quality, quantity, availability, or distribution), and assess how the species is expected to respond to the effects to its habitat or other resources. Critical habitat analyses focus on how the proposed action will affect the physical and biological features of the critical habitat in the action area. If there will be only beneficial effects or the effects of the action are expected to be insignificant or discountable, conclude "may affect, not likely to adversely affect" and submit your finding and supporting rationale to our office and request concurrence.
5. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, check IPaC for species-specific Section 7 guidance and conservation measures to determine whether there are any measures that may be implemented to avoid or minimize the negative effects. If you modify your proposed action to include conservation measures, assess how inclusion of those measures will likely change the effects of the action. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, contact our office for assistance.
6. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

For additional information on completing Section 7 Consultation including a Glossary of Terms used in the Section 7 Process, information requirements for completing Section 7, and example letters visit the Midwest Region Section 7 Consultations website at: <https://www.fws.gov/office/midwest-region-headquarters/midwest-section-7-technical-assistance>.

You may find more specific information on completing Section 7 on communication towers and transmission lines on the following websites:

- Incidental Take Beneficial Practices: Power Lines - <https://www.fws.gov/story/incidental-take-beneficial-practices-power-lines>
- Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. - <https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation>

Tricolored Bat Update

On September 14, 2022, the Service published a proposal in the Federal Register to list the tricolored bat (*Perimyotis subflavus*) as endangered under the Endangered Species Act (ESA). The Service has up to 12-months from the date the proposal published to make a final determination, either to list the tricolored bat under the Act or to withdraw the proposal. The Service determined the bat faces extinction primarily due to the rangewide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across North America. Because tricolored bat populations have been greatly reduced due to WNS, surviving bat populations are now more vulnerable to other stressors such as human disturbance and habitat loss. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective (typically 30 days after publication of the final rule in the Federal Register), the prohibitions against jeopardizing its continued existence and "take" will apply. Therefore, if your future or existing project has the potential to adversely affect tricolored bats after the potential new listing goes into effect, we recommend that the effects of the project on tricolored bat and their habitat be analyzed to determine whether authorization under ESA section 7 or 10 is necessary. Projects with an existing section 7 biological opinion may require

reinitiation of consultation, and projects with an existing section 10 incidental take permit may require an amendment to provide uninterrupted authorization for covered activities. Contact our office for assistance.

Other Trust Resources and Activities

Bald and Golden Eagles

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act, as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, please contact our office for further coordination. For more information on permits and other eagle information visit our website <https://www.fws.gov/library/collections/bald-and-golden-eagle-management>. We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Illinois-Iowa Ecological Services Field Office

Illinois & Iowa Ecological Services Field Office

1511 47th Ave

Moline, IL 61265-7022

(309) 757-5800

PROJECT SUMMARY

Project Code: 2026-0048495

Project Name: Central Mainline Corridor - Clarion Compressor Station

Project Type: Natural Gas Distribution

Project Description: Northern Natural Gas (Northern) is proposing a new natural gas-fired compressor station on their existing system in Wright County, Iowa as part of the Central Mainline Corridor Project.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.761268099999995,-93.78923304210932,14z>



Counties: Wright County, Iowa

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

FISHES

NAME	STATUS
Topeka Shiner <i>Notropis topeka</i> (=tristis) Population: Wherever found, except where listed as an experimental population There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4122	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

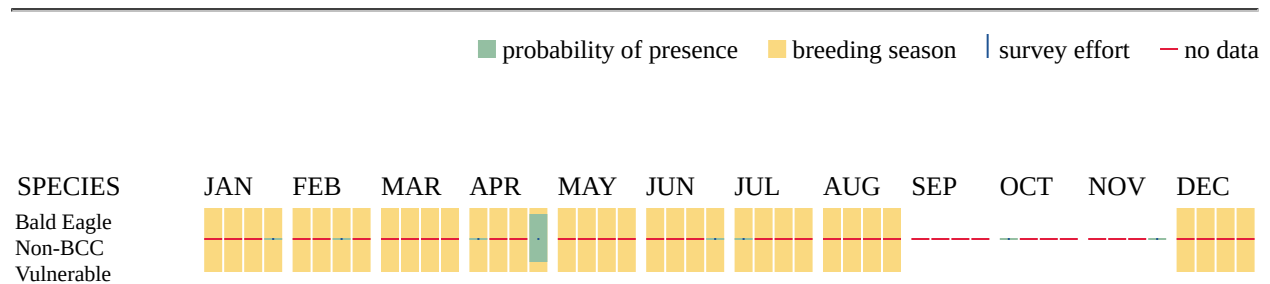
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Franklin's Gull <i>Leucophaeus pipixcan</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10567	Breeds May 1 to Jul 31
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Northern Harrier <i>Circus hudsonius</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8350	Breeds Apr 1 to Sep 15

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

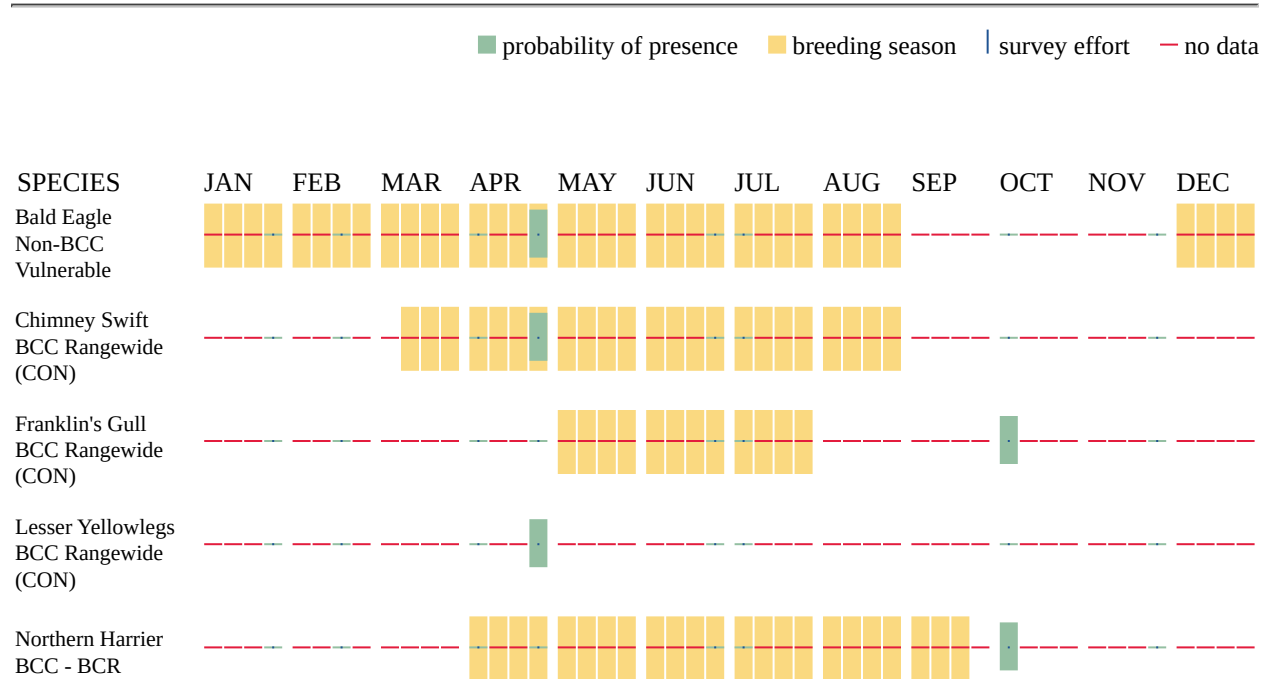
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: Stantec
Name: Mia Bauer
Address: One Carlson Parkway
Address Line 2: Suite 100
City: Plymouth
State: MN
Zip: 55447
Email: mia.bauer@stantec.com
Phone: 6124273725

**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION –
RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

C.2 IDNR CORRESPONDENCE

From: casey.laskowski@dnr.iowa.gov
To: [Steele, Mason](#)
Subject: 2026-0364 Environmental Review Request - Central Mainline Corridor Expansion Project – Clarion Compressor Station
Date: Tuesday, March 10, 2026 12:44:09 PM

You don't often get email from casey.laskowski@dnr.iowa.gov. [Learn why this is important](#)

42.7622/-93.7892; Wright County
Sec. 21/T92N/R25W

Thank you for inviting the Department to comment on the impact of this project. The Department has searched for records of rare species and significant natural communities in the project area and found no site-specific records that would be impacted by this project. However, these records and data are not the result of thorough field surveys. If listed species or rare communities are found during the planning or construction phases, additional studies and/or mitigation may be required.

This email is a record of review for protected species, rare natural communities, state lands and waters in the project area, including review by personnel representing state parks, preserves, recreation areas, fisheries and wildlife but does not include comment from the Environmental Services Division of this Department. This email does not constitute a permit. Other permits may be required from the Department or other state or federal agencies before work begins on this project.

If you have questions about this letter or require further information, please contact me at (515) 330-6432.

Sincerely,

Casey Laskowski | Environmental Specialist
Iowa Department of Natural Resources
P 515-330-6432 | F 515-725-8202 | 6200 Park Avenue Suite 200, Des Moines, IA 50321
www.iowadnr.gov



Caution: This email originated from outside of Stantec. Please take extra precaution.

Attention: Ce courriel provient de l'extérieur de Stantec. Veuillez prendre des précautions supplémentaires.

Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – CLARION COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

Appendix D Federal and State-Listed Species Potentially Occurring in the ESB in Wright County

Common Name (Scientific Name)	Federal Status	State Status	County, State	Range or Habitat Requirements	Potential for Occurrence in Project Area
Topeka Shiner (<i>Notropis topeka</i>)	Endangered	Threatened	Wright County, Iowa	Habitat includes slow-moving streams and oxbow lakes with clean gravel or sand substrates and abundant aquatic vegetation	Does not occur Project area is within the species known range, however no suitable habitat was found within the Project area (streams and lakes). No effect
Monarch Butterfly (<i>Danaus plexippus</i>)	Proposed Threatened	None	Wright County, Iowa	Habitat includes open vegetated areas where milkweed and other diverse flowering plants are present. Milkweed species are required for larval development.	Unlikely to occur Project area is within the species known range but does not contain suitable habitat (nectar sources and milkweed) and no individuals were identified during the 2025 field surveys. Northern joined the USFWS Nationwide Monarch Butterfly Candidate Conservation Agreement on Energy and Transportation Lands in 2020. As part of this Project component, Northern will utilize pollinator friendly plant seed mixtures within Northern owned properties, where feasible. No effect

Beatrice Compressor Station

Central Mainline Corridor Expansion Project – Beatrice Compressor Station – Rare, Threatened, and Endangered Species Report

Gage County, Nebraska



Stantec Consulting Services Inc.

Prepared by:
Stantec Consulting Services Inc.
One Carlson Parkway North, Suite 100
Plymouth, Minnesota 55447-4440

Prepared for:
Terry Plucker
Northern Natural Gas
1111 South 103rd Street
Omaha, Nebraska 68124

April 7, 2026

Sign-off Sheet

This document entitled Central Mainline Corridor Expansion Project – Beatrice Compressor Station – Rare, Threatened, and Endangered Species Report was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Northern Natural Gas (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by 
Mason Steele, Environmental Scientist

Reviewed by 
Bruce Galer, PG, CMWP, Associate, Senior Environmental Scientist

Approved by 
Nathan Noland, Associate, Environmental Scientist

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – BEATRICE COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

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CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – BEATRICE COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

Acronyms List

BCR	Bird Conservation Region
BGEPA	Bald and Gold Eagle Protection Act
C	Celsius
CERT	Conservation and Environmental Review Tool
ERR	Environmental Review Report
ESB	Environmental Survey Boundary
ESA	Endangered Species Act
F	Fahrenheit
FERC	Federal Energy Regulatory Commission
IBA	Important Bird Area
IPaC	Information for Planning and Consultation
MBTA	Migratory Bird Treaty Act
NABCI	North American Bird Conservation Initiative
NGPC	Nebraska Game and Parks Commission
NLEB	Northern Long-eared Bat
Northern	Northern Natural Gas
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
Project	Central Mainline Corridor Expansion Project – Beatrice Compressor Station
ROW	Right-of-way
RTE	Rare, threatened, or endangered
SCBB	Suckley's Cuckoo Bumble Bee
Stantec	Stantec Consulting Services Inc.
USC	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – BEATRICE COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

1.0 Introduction

Stantec Consulting Services Inc. (Stantec) prepared this rare, threatened, and endangered (RTE) species report for the proposed Central Mainline Corridor Expansion Project – Beatrice Compressor Station (Project) located within Gage County, Nebraska. The work was conducted at the request of Northern Natural Gas (Northern) in order to facilitate compliance with the Endangered Species Act (ESA) of 1973 (16 United States Code [USC] A-1535-1543, P.L. 93-205), as amended.

This report describes the methods used to conduct the RTE species habitat assessment and correspondence between Stantec and Nebraska Game and Parks Commission (NGPC) to discuss the results of the investigation. This report does not serve as a Project clearance letter for the above referenced Project but provides a professional opinion on the potential for Project construction activities to affect federally and state listed RTE species known to inhabit Gage County, Nebraska.

1.1 PROJECT DESCRIPTION

1.1.1 Overview

Northern owns and operates a natural gas transmission pipeline system, including pipeline and associated aboveground facilities in Iowa and Nebraska. Northern is filing an application with the Federal Energy Regulatory Commission (FERC) pursuant to Section 7 of the Natural Gas Act. The Project involves the construction of three new pipeline extensions consisting of approximately 26.15 miles of 20-inch- and 30-inch-diameter pipelines and associated above-ground appurtenances in Iowa and Nebraska.

1.1.2 Beatrice Compressor Station

The remainder of this RTE report will focus on the Beatrice compressor station.

Northern proposes to make aboveground modifications within its existing Beatrice compressor station facility. The site is located on the north side of West Locust Road, Section 15, Township 3 North, Range 6 East, Gage County, Nebraska (Figure 1, Appendix A). The facility modifications will allow reverse flow through the station pipeline for bidirectional service to customers. The new bidirectional service includes piping, valves, gas scrubber, clamp-on meter, control valve, and liquids drain tank. All work will be completed within the existing facility footprint, which totals approximately 4.82 acres. No expansion of the existing facility boundary is required. There will be no change to the horsepower or air emissions at the facility as a result of the proposed Project.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – BEATRICE COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

2.0 Methods

Stantec conducted a desktop review for RTE species, United States Fish and Wildlife Service (USFWS) designated critical habitat, and potential for suitable habitat within the Northern-defined ESB based on review of USFWS database information and correspondence with the NGPC. Field surveys were used to confirm and supplement the desktop review and were used to assess possible presence of individuals or populations of protected species and species of conservation concern, as well as suitable habitat for those species as part of the wetland delineation throughout the ESB. Northern's ESB encompasses all proposed workspaces and typically provides a minimum of a 50-foot clearance buffer around workspaces.

2.1 DESKTOP ASSESSMENT

A desktop study of the ESB was completed in November 2025 and updated in February 2026. The desktop assessment included review of aerial imagery, USFWS National Wetlands Inventory (NWI) maps, the USFWS Information for Planning and Consultation (IPaC) tool (USFWS 2025a), the NGPC Conservation and Environmental Review Tool (CERT) (NGPC 2026), state wildlife agency websites, and other available literature. Stantec biologists reviewed the aforementioned information to identify and become familiar with the natural features and listed species most likely to be encountered in within the ESB for the Project component (Project area). The USFWS Species List from IPaC is included in Appendix C.1 and the correspondence with the NGPC is included in Appendix C.2

In preparation for field surveys, the USFWS IPaC tool was accessed to obtain an official list of federally listed RTE species, proposed, and candidate species and federally designated critical habitat that may be present within the ESB.

2.2 FIELD SURVEYS

Stantec conducted field surveys concurrent within the wetland delineations in November 2025 for presence of suitable habitats for RTE species, raptor stick-nests, and the presence/absence of raptors, including eagles, within vicinity of the Project. Field crews reviewed the list of protected species identified as having the potential to occur within the ESB and one-mile buffer of Project boundary. In addition, the field crews reviewed the applicable fact sheets for specific habitat requirements and identification criteria for the potential species. The field surveys consisted of pedestrian inspections to evaluate the presence/absence of suitable habitat and potential presence of listed species within the ESB.

To support the development of site descriptions, vegetation characterizations, and evaluations of potential RTE species suitable habitats, the field crew documented existing upland and wetland vegetative communities, and land cover characteristics present within the ESB. A photographic log showing representative vegetation communities is included as Appendix B.

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2.3 SPECIES EVALUATIONS

The potential for occurrence of each species within the Project area was summarized according to the categories listed below. Potential for occurrence categories are as follows.

- **Known to occur**—the species has been documented in the Project area by a reliable observer.
- **May occur**—the Project area is within the species' currently known range, and vegetation communities, soils, etc., resemble those known to be used by the species.
- **Unlikely to occur**—the Project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species, or the Project area is clearly outside the species' currently known range.
- **Does not occur**—the species does not occur in the Project area.

Those species listed by the USFWS and the NGPC were assigned to one of three categories of possible effect. The effects determinations include the following.

- **May affect, and is likely to adversely affect** — adverse effects to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial.
- **May affect, but not likely to adversely affect** — the proposed action may affect listed species and/or critical habitat; however, the effects are expected to be discountable, insignificant, or completely beneficial.
- **No effect** — the proposed action will not affect listed species or critical habitat.

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3.0 Results

3.1 ECOLOGICAL OVERVIEW

The Project area lies within Major Land Resource Area (MLRA) 106 – Nebraska and Kansas Loess-Drift Hills. This region of the MLRA lies between other Hills areas as they transition to the plains and prairies area to the southwest. Topography is rolling to hilly, increasing in elevation from east to west (Natural Resources Conservation Service [NRCS] 2022).

The average annual precipitation in this region is 29 to 41 inches (730 to 1,040 millimeters). This area is primarily covered with loess with underlying glacial drift. Soils are primarily very deep and well drained to moderately well drained. There is scant snowfall in the winter. Average annual temperatures range from 50 to 56 degrees F (10 to 13 degrees C). The freeze-free period averages about 180 days and ranges from 165 to 210 days (NRCS 2022).

3.2 VEGETATION

Land use within the Nebraska and Kansas Loess-Drift Hills is approximately 54% active or fallow cropland, with 22% grassland and pasture, 12% deciduous forests, 6% developed, 3% other land uses, and 3% other hay fields. Where grasslands are supported, they are characterized by big bluestem (*Andropogon gerardii*), little bluestem (*Schizachyrium scoparium*), switchgrass (*Panicum virgatum*), porcupine grass (*Hesperostipa spartea*), and side-oats grama (*Bouteloua curtipendula*). Streams and intermittent drainage ways support green ash (*Fraxinus pennsylvanica*), boxelder (*Acer negundo*), black walnut (*Juglans nigra*), and hackberry (*Celtis occidentalis*) (NRCS 2022).

3.2.1 Land Cover Types

During field surveys, Stantec identified two general land cover types within the Project area. Using observations of vegetative cover, hydrology, and/or the presence of developed structures – land in the Project area was classified as wetland, or industrial/commercial. General descriptions of the land cover types encountered in the Project area are as follows.

- **Wetland** – including areas dominated by wetland vegetation and exhibiting hydric soils and wetland hydrology, including those that are farmed. Wetland types include emergent wetlands, scrub-shrub wetlands and forested wetlands.
- **Industrial/Commercial Land** – including electric power or gas utility right of way (ROW) or corridors, manufacturing or industrial plants, landfills, mines, quarries, commercial or retail facilities and roads.

3.2.2 Vegetation Communities

Stantec identified one general type of vegetation community within the Project area, identified below. Industrial/commercial land is not included within the list, as vegetation was not used to determine land use type.

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- **Wetland** – Wetland types observed in the ESB included wet meadow. Wet meadow communities were dominated by sawtooth sunflower (*Helianthus grosseserratus*) and switchgrass.

3.3 SPECIES EVALUATION

A review of federally and state-protected species, species of conservation concern, associated habitats, and other rare natural features that are known to occur within one mile of the Project ESB was conducted as described in Section 2.1. Information provided by the USFWS Nebraska Ecological Services Field Office and correspondence with the NGPC through CERT was included in the review of the Project component for potential impacts on these resources (see Appendix C.1 and C.2).

The federally and state-listed species with suitable habitat and/or potential to occur within the Project area are discussed below.

3.3.1 Federally Listed Species

Stantec obtained an official IPaC species list (Project Code: 2026-0048489) from the USFWS Nebraska field office on February 11, 2026 (Appendix C.1). The USFWS determined the following federally listed species may occur in the proposed Project area or may be affected by the proposed Project component actions in Nebraska:

- Northern Long-eared Bat (*Myotis septentrionalis*) - Endangered
- Monarch Butterfly (*Danaus plexippus*) – Proposed threatened
- Suckley's Cuckoo Bumble Bee (*Bombus suckleyi*) – Proposed endangered
- Western Regal Fritillary (*Argynnis Idalia occidentalis*) – Proposed threatened

This species and its habitat requirements are described below.

Northern Long-eared Bat

Suitable roosting, forage, and travel habitat for northern long-eared bat (NLEB) in the summer consists of a wide variety of contiguous forested and wooded habitats with varying tree density and amounts of canopy closure. While roosting, NLEB is generally found in deep crevices in areas such as forests and woodlots (i.e., live trees and/or snags greater than or equal to three inches in diameter at breast height that have exfoliating bark, cracks, crevices, and/or cavities) as well as linear features such as fence rows, riparian forests, and other wooded corridors. NLEB roosts in both live trees and snags (Sasse and Perkins 1996; Foster and Kurta 1999; and Owen et al. 2003). Additional summer habitat for the NLEB consists of areas adjacent to wooded areas, namely emergent wetlands and edges of agricultural fields, old fields, and pastures. The NLEB has also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses (USFWS 2024b). During winter months, NLEB hibernates in caves or abandoned mines (Owen et al. 2003). The Project area consists of the existing compressor station with wetlands located outside of the Project ESB. No tree clearing is proposed for this Project component.

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No known bat hibernacula are located within 0.5 mile of the Project area (USFWS 2025b). The USFWS IPaC determination key concluded that the Project component will have no effect on the NLEB. The NGPC ERR stated that there is no suitable habitat within 1,000 feet of the Project area and conservation measures must be implemented in order to avoid adverse impacts on this species. Northern is not removing any suitable trees or roosting structures for this Project component. Therefore, the Project will not impact this species and consultation is considered complete. The USFWS determination key and ERR for NLEB are provided in Appendix C.

Monarch Butterfly

The monarch butterfly is a migratory butterfly that exists in two main populations within the United States divided by the Rocky Mountains: the eastern population that overwinters in the mountains of Mexico, and the western population that overwinters along the southern Pacific coast of California (USDA Forest Service undated). Monarch butterflies are a widespread species found in fields, prairies, savannahs, and most places where milkweed (*Asclepias* spp.), their host plant, occurs throughout the United States and southern Canada. This species generally occurs in areas with high densities of nectar sources, preferably those of native prairies. During late summer and migration, adults use nectar species such as black-eyed Susan (*Rudbeckia hirta*), narrow-leaved coneflower (*Echinacea angustifolia*), and rough blazing star (*Liatris aspera*) (MDNR 2026). However, the presence of milkweed is required for the survival of caterpillars, as it is the only plant on which they can feed (National Wildlife Federation undated).

During the November field surveys, Stantec did not observe milkweed, nectar sources, or individual monarch butterflies within the Project area (Figure 2, Appendix A).

Northern is committed to the restoration and preservation of pollinator habitat. Northern joined the USFWS Nationwide Monarch Butterfly Candidate Conservation Agreement on Energy and Transportation Lands in 2020. As part of this Project component, Northern will utilize pollinator friendly plant seed mixtures within Northern owned properties, where feasible. Northern will offer landowners the option of utilizing pollinator friendly seed mixtures on privately owned lands within the Project workspaces where temporary impacts occur. Therefore, Stantec has determined that the Project component will not jeopardize the continued existence of the monarch butterfly and that the Project component will have no effect on this species.

Additionally, the monarch butterfly is proposed for listing as threatened by the USFWS with a 4(d) Rule. The USFWS does not provide a determination key for the monarch butterfly in this region. Since a no effect determination was made, no further consultation with the USFWS is required.

Suckley's Cuckoo Bumble Bee

Suckley's cuckoo bumble bee (SCBB) is parasitic bumble bee that relies exclusively on the nests of other bumble bees as hosts. The SCBB historically occurs across a wide range of habitats, including prairies, grasslands, meadows, woodlands, urban areas, and agricultural areas where host bumble bee nests are present. This species has historically occurred in Nebraska, but no extant populations are known to occur in Nebraska at present. Only three confirmed records of

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the species exist in the state, the most recent of which being reported post-2000, but before 2016, in southeastern Nebraska. The last confirmed sighting of SCBB in the contiguous United States was in Oregon in 2016 (USFWS 2024a). Open land within the active compressor station that constitutes the Project area is routinely mowed, and the Project area is on the far eastern edge of the SCBB historical range. Given the lack of suitable habitat in the Project area and limited records within the state, the SCBB does not occur within the Project area and Stantec has determined that the Project will have no effect on the SCBB.

Additionally, the SCBB is proposed for listing as endangered by the USFWS with a 4(d) Rule. The USFWS does not provide a determination key for the SCBB in this region. Since a no effect determination was made, no further consultation with the USFWS is required.

Western Regal Fritillary

Western regal fritillary requires large, intact grasslands at a landscape scale, with violets for larvae; nectar sources for adults; and warm season, native warm-season bunch grasses for shelter at all life stages. The grasslands need to be large and contiguous, generally more than 3.86 square miles, and be maintained by periodic disturbances. Violet species (*Viola* sp.) are required as the exclusive source of larval forage (USFWS 2024b). While the Project area is within the known range of the western regal fritillary, no suitable host plant, prairie violet (*Viola pedatifida*), or individual species were observed during the 2025 field investigations. Therefore, the western regal fritillary is unlikely to occur within the Project area. The Project was determined to have no effect on the western regal fritillary.

Additionally, the western regal fritillary is proposed for listing as threatened by the USFWS with a 4(d) Rule. The USFWS does not provide a determination key for the western regal fritillary in this region. Since a no effect determination was made, no further consultation with the USFWS is required.

3.3.2 State-Listed Species

Based on review of the CERT, the state listed species that are known to occur or potentially occur within the ESB in Gage County, Nebraska are the following:

- Northern Long-eared Bat (*Myotis septentrionalis*) - Endangered
- Western Massasauga (*Sistrurus tergeminus*) - Threatened

NGPC provided an ERR on February 25, 2026. The ERR indicated the Project area is within the range of the above listed species.

Species that also have federal designations are discussed above. The remaining state-listed species and their habitats are described below.

Western Massasauga

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Western massasaugas use grassland habitats, such as tallgrass prairie and grassy fields adjacent to moist areas, such as marshland, wet prairies, and floodplains. Western massasaugas exclusively rely on crayfish burrows for hibernation. While the Project area is within the known range of the western massasauga, the Project area is an active compressor station consisting primarily of impervious surfaces and highly disturbed vegetation. Where grasses are present, they are maintained and mowed. Therefore, this species is unlikely to occur within the Project area, and impacts are not anticipated as a result of the Project. The ERR indicated that conservation measures are not needed for the massasauga. Based on the lack of suitable habitat and the work proposed at the facility, the Project will not impact this species and consultation is considered complete. The ERR for the western massasauga is provided in Appendix C.2.

3.4 MIGRATORY BIRDS

The USFWS states that bald eagles (*Haliaeetus leucocephalus*) may occur within the Project area. Bald and golden eagles (*Aquila chrysaetos*) are regulated by the Bald and Golden Eagle Protection Act (BGEPA). The Project component is located primarily within active agricultural crop land and Northern's existing facility. Stantec completed raptor stick-nest surveys in November 2025, and no eagle or raptor nests were identified within or within the vicinity of the Project area. In addition, no tree clearing will occur for the Project component. Therefore, this Project component is anticipated to have no effect on bald eagles.

The North American Bird Conservation Initiative (NABCI) maintains a list of Bird Conservation Regions (BCRs) (NABCI 2021). A BCR is an ecologically distinct region in North America with similar bird communities, habitats and resource management issues. There are 66 BCRs in North America. The Project area will be in BCR 19 – the Central Mixed Grass Prairie region. The USFWS Birds of Conservation Concern 2021 report (USFWS 2021) identifies 27 Birds of Conservation Concern within BCR 19.

Based on review of the USFWS IPaC Species list (USFWS 2025a) for the ESB in Gage County, there are three Birds of Conservation Concern identified that may occur within the ESB. The protection of migratory birds is regulated by the Migratory Bird Treaty Act (MBTA). Any activity, intentional or unintentional, that results in take of migratory birds is prohibited unless otherwise permitted by the USFWS. Depending on the timing of construction, the Project component may potentially affect nests, eggs, and/or young birds protected under the MBTA. Therefore, pre-construction nest surveys are recommended if vegetation disturbance will occur within nesting seasons for migratory birds to avoid incidental take of nesting birds protected under the MBTA. The nest survey will determine the absence or presence of breeding birds and their nests. Pre-construction nest surveys should be completed according to the following procedures.

- No more than seven days before construction activities commence, pre-construction nest surveys for migratory birds will be completed by a qualified avian biologist. The area surveyed will include the proposed workspaces or areas where potentially suitable habitat has been identified.

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- If an occupied (non-eagle) raptor nest is observed during the survey, construction activities will not be permitted within 100-foot buffer of it to avoid incidental take of protected raptor species. Furthermore, construction activities will not be permitted within a 660-foot buffer of any eagle nest site during the breeding season or until the fledglings have left the area. Northern will complete consultation with the USFWS, NGPC if an active raptor nest are observed, as required.
- If a nest, other than a raptor nest is observed during the survey, construction activities will not be permitted within a 15- to 30-foot buffer of the nest depending on the species and vertical offset from the nest.
- Upon completion of the nest surveys, the survey results will be submitted to the USFWS, NGPC, as appropriate. If breeding birds are not present, construction can proceed with no restrictions. If breeding birds or active nests are present, additional consultation will be completed, as required.

Important Bird Areas (IBAs) are discrete sites that provide essential habitat for one or more bird species and include habitat for breeding, wintering, and/or migrating birds (Audubon 2021). The Project area does not cross an IBA. The nearest IBA to the Project area is the Lancaster County Saline Wetlands IBA, approximately 30 miles north of the Project area. Therefore, impacts to IBAs are not anticipated, as a result of the Project component.

3.4.1 County, State and Federal Lands

No county, state, or federal lands were identified within the Project area.

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4.0 Summary and Conclusions

Stantec performed a review of federally and state-protected species that may occur within the Project ESB. Based on the review, Stantec identified four federally listed species: the NLEB, monarch butterfly, Suckley's cuckoo bumble bee, and western regal fritillary and two state listed species: the NLEB and western massasauga that could occur within the Project area.

Based on proposed Project component work, the desktop review and onsite habitat assessment conducted during the November 2025 field surveys, the Project component was determined to have no effect on the NLEB, monarch butterfly, Suckley's cuckoo bumble bee, western regal fritillary, western massasauga, migratory birds and/or bald eagles, or IBAs; and no federally designated critical habitats occur within the Project area. Species consultation for this Project component is complete.

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5.0 Limitations and Warranty

Within the limitations of schedule, budget, and scope of work, Stantec warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species' listing status in effect at the time this evaluation was performed.

The results and conclusions of this report represent the best professional judgment of Stantec scientists. No other warranty, expressed or implied, is made. Please be aware that only the USFWS and/or lead federal agency can determine compliance with the ESA.

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CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – BEATRICE COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

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RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

Appendix A Figures

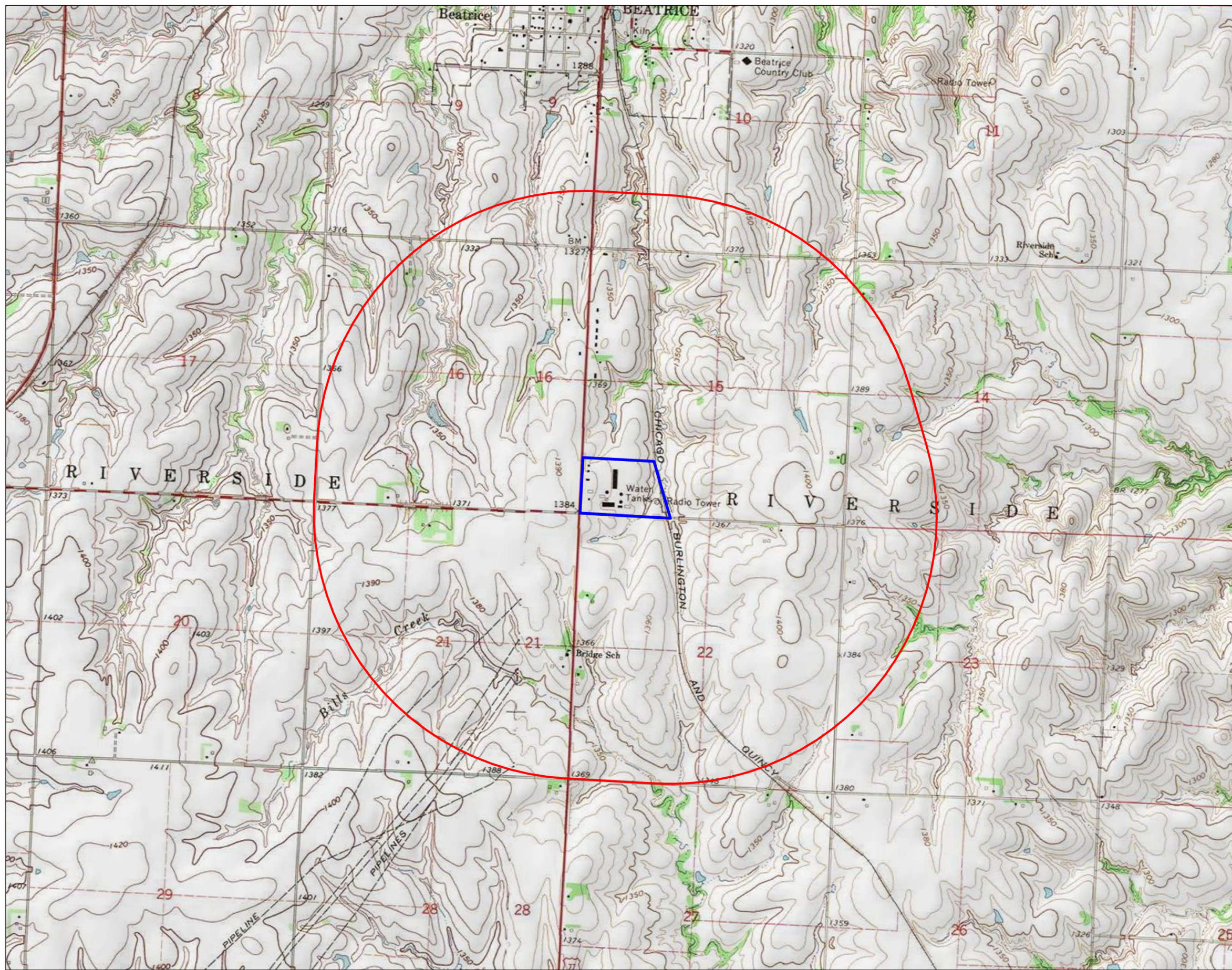
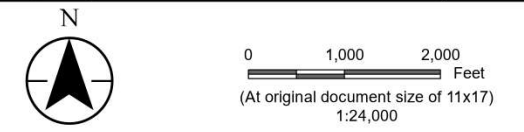
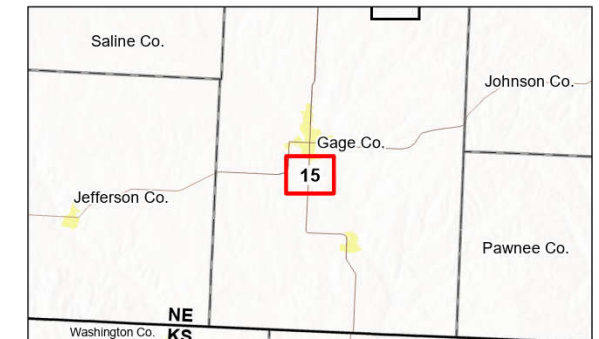


Figure No. **1**
 Title **Project Location & 1-Mile Buffer Beatrice Compressor Station**
 Client/Project Northern Natural Gas Central Mainline Corridor Expansion Project 172609221
 Project Location Township of Riverside Gage County, Nebraska Prepared by JM on 2026-02-10 TR by SF on 2026-02-12 IR by SK on 2026-03-20



Legend
 [Blue Box] Environmental Survey Boundary
 [Red Circle] 1-Mile Buffer



Notes
 1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: USGS 7.5' Topographic Quadrangles

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Figure No.

2

Title

**Rare, Threatened, & Endangered Species Report
Beatrice Compressor Station**

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project

172609221

Project Location
Township of Riverside
Gage County, Nebraska

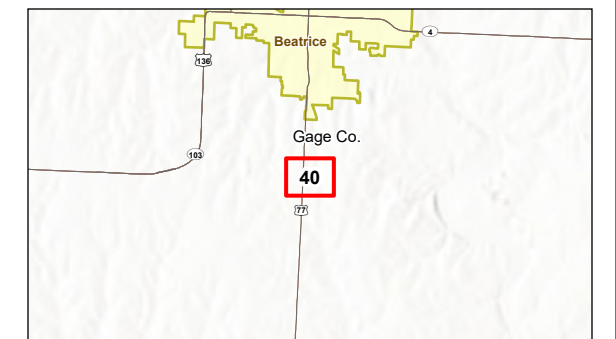
Prepared by JM on 2026-02-09
TR by SF on 2026-02-27
IR by SK on 2026-03-23



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(At original document size of 11x17)
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Legend

- Existing Pipeline
- Environmental Survey Boundary
- Temporary Workspace
- △ TE Species
- △ Culvert
- Potentially Suitable Bat Habitat
- Field Delineated Waterway Line
- Field Delineated Waterway Area
- Field Delineated Wetland
- National Hydrography Dataset
- Perennial Stream
- Intermittent Stream
- Canal/Ditch
- Waterbody



- Notes
1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: NAIP 2022



**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – BEATRICE COMPRESSOR STATION –
RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

Appendix B Photographs



Photo 1. General view of wet meadow community at Beatrice CS, photo taken facing west.



Photo 2. General view of wet meadow community at Beatrice CS, photo taken facing south.



Photo 3. General view of industrial area at the Beatrice CS, photo taken facing south.



Photo 4. General view of industrial area within the Beatrice CS, photo taken facing west.



Photo 5. General view of waterway in industrial area within the Beatrice CS, photo taken facing south.



Photo 6. General view of waterway within the Beatrice CS photo taken facing northeast.



Photo 7. General view of wetland bordering industrial area within the Beatrice CS, photo taken facing south.



Photo 8. View of industrial area outside the Beatrice CS fence, photo taken facing southeast.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – BEATRICE COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

Appendix C Endangered Species Lists and Agency Consultation

C.1 USFWS IPAC LIST OF SPECIES

Scientific Name	Common Name	Federal Listing	State Listing	State Rank ¹	Global Rank ²
Mammals					
<i>Myotis septentrionalis</i>	Northern Long-eared Bat	Endangered	Endangered	S1	G2
Insects					
<i>Danaus plexippus</i>	Monarch Butterfly	Proposed Threatened	None	S2	G4
<i>Bombus suckleyi</i>	Suckley's Cuckoo Bumble Bee	Proposed Endangered	None	SH	G2
<i>Argynnis Idalia occidentalis</i>	Western Regal Fritillary	Proposed Threatened	None	S3	G3

¹ State Ranks: S1=critically imperiled, S2=imperiled, S3=vulnerable to extirpation, S4=apparently secure, S5=secure, SH=possibly extirpated, SX=presumed extirpated

² Global Ranks: G1=critically imperiled, G2=imperiled, G3=very rare and found locally, G4=apparently secure, G5=secure.



United States Department of the Interior



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Nebraska Ecological Services Field Office
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In Reply Refer To:

02/11/2026 16:35:51 UTC

Project Code: 2026-0048489

Project Name: Central Mainline Corridor - Beatrice Compressor Station

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the [IPaC website](#) at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended

contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the [Endangered Species Consultation Handbook](#) or at our [Nebraska Ecological Services Field Office - Project Review and Planning webpage](#). **For recommendations to minimize the effects of project actions on federally listed species or designated critical habitat, please view the [Nebraska Ecological Service's Field Office Conservation Measures Technical Assistance Guide](#).**

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Project Consultation Code in the header of this letter (i.e., YEAR-XXXXXXX) with any request for consultation or correspondence about your project that you submit to our office.

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Act, there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts and permitting see <https://www.fws.gov/program/migratory-bird-permit>

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on threats to birds and recommended conservation measures visit <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit:

<https://www.federalregister.gov/documents/2012/10/03/2012-24433/migratory-bird-conservation-executive-order-13186>

Platte River System: The Platte River, its tributaries, and associated wetland habitats are resources of national importance. Due to the cumulative effect of many water depletion projects in the Platte River basin, the Service considers any direct or indirect depletion of flows from the

Platte River system to be significant and will continue to further deteriorate the already stressed habitat conditions. Federal agencies must consult with the Service under section 7 of the ESA for projects in Nebraska that may lead to water depletions or have the potential to impact water quality in the Platte River system, because these actions may affect threatened and endangered species inhabiting the downstream reaches of these river systems. The federally listed species that could be impacted from Platte River water depletions include the federally endangered Whooping Crane (*Grus americana*), and Pallid Sturgeon (*Scaphirhynchus albus*); the threatened Piping Plover (*Charadrius melodus*) and Western Prairie Fringed Orchid (*Platanthera praeclara*). In general, depletions include evaporative losses and/or consumptive use of surface or groundwater within the affected basin, often characterized as diversions minus return flows. Project elements that could be associated with depletions include, but are not limited to: borrow sites, ponds, lakes, and reservoirs (e.g., for detention, recreating, irrigation, storage, stock watering, municipal storage, and power generation); hydrostatic testing of pipelines; wells; dust abatement; diversion structures; and water treatment facilities. For more information on consultation requirements for the Platte River species, please visit <https://fws.gov/partner/platte-river-recovery-implementation-program>.

Nebraska Nongame and Endangered Species Conservation Act: Federally listed species protected under the Endangered Species Act are also state-listed under the Nebraska statute, the Nebraska Nongame and Endangered Species Conservation Act. There may be state-listed species affected by the proposed project that are not federally listed. To determine if the proposed project may affect state-listed species, the Service recommends that the project proponent contact the Nebraska Game and Parks Commission (NGPC) Planning and Program Division located at 2200 North 33rd Street Lincoln, Nebraska 68503-0370. For more information and to request an environmental review from the NGPC, visit their Environmental Review website at <http://outdoornebraska.gov/environmentalreview/> for instructions and contact information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Nebraska Ecological Services Field Office

9325 B South Alda Rd., Ste B

Wood River, NE 68883-9565

(308) 382-6468

PROJECT SUMMARY

Project Code: 2026-0048489

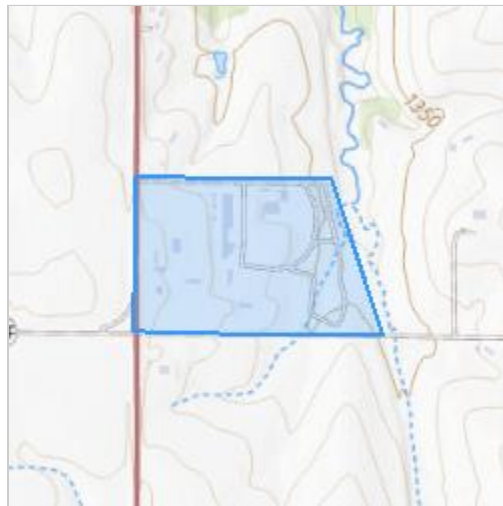
Project Name: Central Mainline Corridor - Beatrice Compressor Station

Project Type: Natural Gas Distribution

Project Description: Northern Natural Gas (Northern) is proposing piping modifications, a new control valve, and a station scrubber to allow for bi-directional flow on the E-line from Palmayra in Gage County, Nebraska as part of the Central Mainline Corridor Project.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.220787,-96.74350755317633,14z>



Counties: Gage County, Nebraska

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/DXMXXKIE2K5DINOHKV5RH5NNWGM/documents/generated/9357.pdf	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743 General project design guidelines: https://ipac.ecosphere.fws.gov/project/DXMXXKIE2K5DINOHKV5RH5NNWGM/documents/generated/8697,9357.pdf	Proposed Threatened
Suckley's Cuckoo Bumble Bee <i>Bombus suckleyi</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10885 General project design guidelines: https://ipac.ecosphere.fws.gov/project/DXMXXKIE2K5DINOHKV5RH5NNWGM/documents/generated/9357.pdf	Proposed Endangered
Western Regal Fritillary <i>Argynnis idalia occidentalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/12017	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

1. The [Bald and Golden Eagle Protection Act](#) of 1940.
2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your [project](#) area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the [National Bald Eagle Management Guidelines](#). You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

If disturbance or take of eagles cannot be avoided, an [incidental take permit](#) may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the [Do I Need A Permit Tool](#). For assistance making this determination for golden eagles, please consult with the appropriate Regional [Migratory Bird Office](#) or [Ecological Services Field Office](#).

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the [Supplemental Information on Migratory Birds and Eagles](#), to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

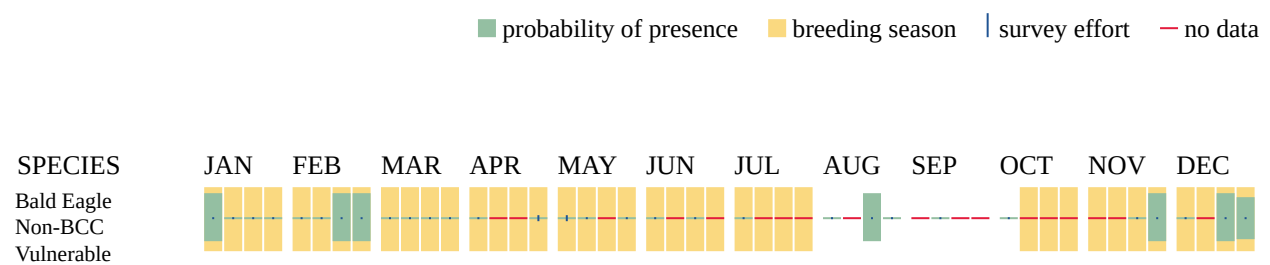
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>

- Nationwide avoidance and minimization measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED.
PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency: Stantec
Name: Mia Bauer
Address: One Carlson Parkway
Address Line 2: Suite 100
City: Plymouth
State: MN
Zip: 55447
Email: mia.bauer@stantec.com
Phone: 6124273725



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Nebraska Ecological Services Field Office
9325 B South Alda Rd., Ste B
Wood River, NE 68883-9565
Phone: (308) 382-6468 Fax: (308) 384-8835

In Reply Refer To:

03/05/2026 20:52:07 UTC

Project code: 2026-0048489

Project Name: Central Mainline Corridor - Beatrice Compressor Station

Federal Nexus: yes

Federal Action Agency (if applicable): Federal Energy Regulatory Commission

Subject: Record of project representative's no effect determination for 'Central Mainline Corridor - Beatrice Compressor Station'

Dear Mia Bauer:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on March 05, 2026, for 'Central Mainline Corridor - Beatrice Compressor Station' (here forward, Project). This project has been assigned Project Code 2026-0048489 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. 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 IPaC or the **Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (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 determination to remain valid.***

Determination for the Northern Long-Eared Bat and/or Tricolored Bat

Based upon your IPaC submission and a standing analysis, your project has reached the following effect determinations:

Species	Listing Status	Determination
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Endangered	No effect

To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Suckley's Cuckoo Bumble Bee *Bombus suckleyi* Proposed Endangered
- Western Regal Fritillary *Argynnis idalia occidentalis* Proposed Threatened

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the species covered by this key. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Nebraska Ecological Services Field Office and reference Project Code 2026-0048489 associated with this Project.

Compliance with Nebraska Nongame and Endangered Species Conservation Act Federally listed species protected under the Endangered Species Act are also state-listed under the Nebraska state statute, the Nebraska Nongame and Endangered Species Conservation Act. To

determine if the proposed project may affect state-listed species, the Service recommends that the project proponent contact the Nebraska Game and Parks Commission (NGPC) Planning and Program Division located at 2200 North 33rd Street Lincoln, Nebraska 68503-0370. To request an environmental review from the NGPC, visit their Environmental Review website at <http://outdoornebraska.gov/environmentalreview/> for instructions.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

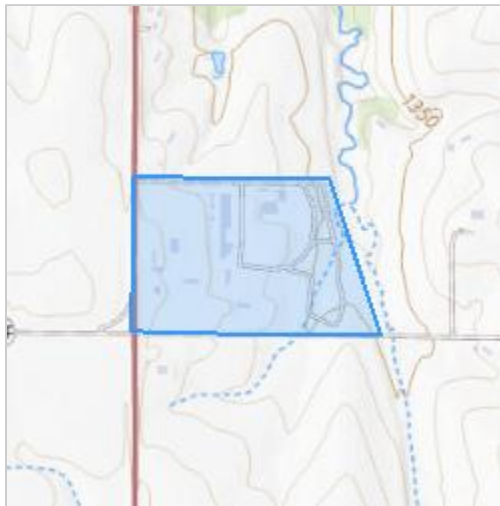
Central Mainline Corridor - Beatrice Compressor Station

2. Description

The following description was provided for the project 'Central Mainline Corridor - Beatrice Compressor Station':

Northern Natural Gas (Northern) is proposing piping modifications, a new control valve, and a station scrubber to allow for bi-directional flow on the E-line from Palmyra in Gage County, Nebraska as part of the Central Mainline Corridor Project.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.220768899999996,-96.74350371693194,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the species covered by this determination key. Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

No

3. Does the action area intersect Zone 1 of the year-round active area for northern long-eared bat and/or tricolored bat?

Automatically answered

No

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Note for projects in Pennsylvania: Projects requiring authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act would be considered as having a federal nexus. Since the U.S. Army Corps of Engineers (Corps) has issued the Pennsylvania State Programmatic General Permit (PASPGP), which may be verified by the PA Department of Environmental Protection or certain Conservation Districts, the need to receive a Corps authorization to perform the work under the PASPGP serves as a federal nexus. As such, if proposing to use the PASPGP, you would answer 'yes' to this question.

Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

No

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

Yes

10. Is FERC reviewing the proposed action under the Natural Gas Act, in whole or in part?

Yes

11. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum or winter roost? Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state wildlife agency.

Automatically answered

No

12. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

No

13. Does the action area contain (1) talus or (2) anthropogenic or naturally formed rock shelters or crevices in rocky outcrops, rock faces or cliffs?

No

14. Will the action cause effects to a bridge?

Note: Covered bridges should be considered as bridges in this question.

No

15. Will the action result in effects to a culvert or tunnel at any time of year?

No

16. Are trees present within 1000 feet of the action area?

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

17. Does the action include the intentional exclusion of bats from a building or building-like structure? **Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

No

18. Does the action involve removal, modification, or maintenance of a human-made building-like structure (barn, house, or other building) **known or suspected to contain roosting bats?**

No

19. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

20. Will the action include or cause any construction or other activity that is reasonably certain to increase average night-time traffic permanently or temporarily on one or more existing roads? **Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

No

21. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

22. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

Note: For information regarding NSF/ANSI 60 please visit <https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects>

No

23. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

24. Will the proposed action involve blasting or drilling?

No

25. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use at night)?

No

26. Will the proposed action involve the use of herbicides or pesticides (e.g., fungicides, insecticides, or rodenticides)?

No

27. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

28. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

No

29. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

No

30. Will the proposed action result in the use of prescribed fire?

Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

No

31. Does the action area intersect the northern long-eared bat species list area?

Automatically answered

Yes

32. [Semantic] Is the action area located within 0.5 miles of radius of an entrance/opening to any known NLEB hibernacula or winter roost? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

33. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats? **Note:** The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

Automatically answered

No

34. [Semantic] Is the action area located within 150 feet of a documented northern long-eared bat roost site?

Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency. Have you contacted the appropriate agency to determine if your action is within 150 feet of any documented northern long-eared bat roosts?

Note: A document with links to Natural Heritage Inventory databases and other state-specific sources of information on the locations of northern long-eared bat roosts is available [here](#). Location information for northern long-eared bat roosts is generally kept in state natural heritage inventory databases – the availability of this data varies by state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited.

Automatically answered

No

35. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?

If unsure, answer "Yes."

Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: <https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines>.

Yes

36. Has a presence/probable absence summer bat survey targeting the northern long-eared bat following the Service's [Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) been conducted within the project area?

No

37. Do you have any documents that you want to include with this submission?

No

PROJECT QUESTIONNAIRE

IPAC USER CONTACT INFORMATION

Agency: Stantec
Name: Mia Bauer
Address: One Carlson Parkway
Address Line 2: Suite 100
City: Plymouth
State: MN
Zip: 55447
Email: mia.bauer@stantec.com
Phone: 6124273725

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Energy Regulatory Commission

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – BEATRICE COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

C.2 NGPC CORRESPONDENCE



Environmental Review Report

Project Information

Report Generation Date: 2/25/2026 01:29:22 PM
Project Title: Central Mainline Corridor Expansion Project – Beatrice Compressor Station
User Project Number(s): NA
System Project ID: NE-CERT-016410
State Nexus: NDWEE - Department of Water, Energy, and Environment
Project Type: Energy Production/Storage/Transfer, Oil/Natural Gas transport
Project Activities: Modification of monitoring stations
Project Size: 40.54 acres
County(s): Gage
Watershed(s): Big Blue
Watershed(s) HUC 8: Middle Big Blue
Watershed(s) HUC 12: City of Beatrice
Biologically Unique Landscape(s): None
Township/Range and/or Section(s): T03R06ES15; T03R06ES16; T03R06ES22
Latitude/Longitude: 40.220716 / -96.743483

Contact Information

Organization: Stantec
Contact Name: Mason Steele
Contact Phone: 6122126155
Contact Email: mason.steele@stantec.com
Contact Address: 2080 Wooddale Dr Woodbury MN 55125
Prepared By:
Submitted On Behalf Of:

Previous Environmental Review

None specified

Project Description

Northern will complete minor aboveground facility modifications within its existing Beatrice compressor station facility. The facility modifications will consist of installing a new scrubber; Northern will not complete any ground disturbance at this site and all work will be completed inside the compressor building.

Project Duration

Project is expecting to start construction in April of 2027 and to be completed by December of 2027.

Existing Land Use

The ESBs are all primarily comprised of a mixture of maintained/mowed grassland, roadside rights-of-way (ROW), and existing Northern facilities.

Waterbodies

One intermitted waterway was identified within the ESB. No other waterbodies were identified within the ESB. Avoidance measures will be put into place to limit the potential effect to waterbodies.

The Nebraska Nongame and Endangered Species Conservation Act (NESCA)

The Nebraska Game and Parks Commission (Commission or NGPC) has responsibility for protecting state-listed endangered and threatened species under authority of the Nongame and Endangered Species Conservation Act (NESCA) (Neb. Rev. Stat. § 37-801 to 37-814). Pursuant to §37-807 (3)(c) of NESCA, **all state agencies shall, in consultation with the Commission, ensure projects they authorize (i.e., issue a permit for), fund or carry out do not jeopardize the continued existence of state-listed endangered or threatened species or result in the destruction or modification of habitat of such species which is determined by the Commission to be critical. If a proposed project may affect state-listed species or designated critical habitat, further consultation with the Commission is required.**

Informal consultation pursuant to NESCA can be completed by using the Conservation and Environmental Review Tool (CERT). The CERT analyzes the project type and location, and based on the analysis, provides information about potential impacts to listed species, habitat questions and/or conservation measures.

- If project proponent agrees to implement conservation measures, as outlined in the report and applicable to the project type, then this document serves as documentation of consultation with the Commission and the following actions can be taken to move forward with the project:
 - Sign the Environmental Review Report (ERR) in the designated areas, and
 - Upload the signed and dated report into the project within CERT, and
 - Change the edit status to Final from Draft status.
 - When these actions are completed, no additional coordination (i.e., contacting the Commission) is required.
- If the report indicates further review is required in the Overall Results section and/or conservation measures cannot be met, then the following actions must be taken:
 - Project proponent is required to contact and consult with the Commission. Contact information can be found under the Additional Considerations section.
 - The further review process is complete when the Commission indicates so or provides a concurrence letter to the project proponent. This letter should be used in combination with the CERT ERR associated with the project in order to constitute a complete environmental review.
 - When these actions are completed, no additional coordination with the Commission is required.

Review the Overall Results section on the following page for further instructions.

Disclaimer

The U.S. Fish and Wildlife Service has responsibility for conservation and management of fish and wildlife resources for the benefit of the American public under the following authorities: 1) Endangered Species Act; 2) Fish and Wildlife Coordination Act; 3) Bald and Golden Eagle Protection Act; and 4) Migratory Bird Treaty Act.

It is recommended that a project start with requesting an Official Species List via the Information for Planning and Consultation ([IPaC Tool](#)), to begin informal consultation with the U.S. Fish & Wildlife Service.

The information generated in a CERT Environmental Review Report DOES NOT satisfy consultation obligations between the lead federal agency and the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act (ESA).

For the purposes of ESA, the information in this report should be considered as technical assistance, and does not serve as the U.S. Fish and Wildlife Service's concurrence letter, even if the user signs and agrees to implement conservation conditions in order to satisfy consultation requirements of NESCA.

Review the Additional Considerations section for further information.

Overall Results

- Potential impacts on listed species may occur as a result of this project; proceed to the Questions and Conservation Measures section below.

Questions and Conservation Measures

INSTRUCTIONS: Under this section, one or more listed species will appear with a bolded question(s) you need to answer. The question(s) aims to describe the type of habitat, or natural environment, that the species lives in. Read the question(s) and compare the environment described to your Action Area, or project area. Then answer Yes, No, or Unknown to the question(s). Your answer will determine if you need to implement any conservation measures, which is an action that can be taken to avoid impacting a species. Conservation measures are found below the question(s) with a bolded name (example: NLEB CM-1).

Once you are done answering all the questions, proceed to the Conservation Measures Agreement section.

Western Massasauga (*Sistrurus tergeminus*)

Is the Action Area or the area of potential effect within a wet site (including, but not limited to wetlands, ditches, and floodplains) characterized by the presence of prairie cordgrass, reed canary grass, open shrub, and crayfish burrows OR within upland grassland habitat adjacent to (within 1/4 mile of) moist soil habitat (e.g., wetland, wet meadow, etc.)?

Unknown

No. Conservation measures are not needed for this species unless otherwise indicated.

Yes. The following conservation measures must be implemented in order to avoid adverse impacts on Western Massasauga:

WM CM-1: Minimize ground disturbance in the wet areas and if a ponding structure, then fill during summer when the snakes are mobile.

WM CM-3: Survey for crayfish burrows according to protocol prior to ground disturbing activities. If crayfish burrows are found, then further consultation with the Nebraska Game and Parks Commission is required prior to commencing the project or activity.

WM CM-13: Regardless of the answer to the habitat question for western massasauga, please be aware massasauga may enter or move through the project area even if hibernating (wet sites) or foraging (grassland, pasture, prairie) habitats are not present. If massasaugas are encountered at any time, people working on-site should take the following actions to avoid impacts to massasauga and to avoid personal injury:

- Cease activity until the massasauga has moved 50 m (appx. 160 ft) away from the work site.
- Contact Shaun Dunn, Zoologist, Nebraska Game and Parks Commission, at (402) 471-5419 to report the finding. If the snake does not/will not leave the area, further instruction will be provided on how to proceed.
- Unless there is imminent threat to human health or safety, massasauga should not be harmed or destroyed. They are protected under law, and "take" (as defined in Neb. Rev. Stat. § 37-802 (6)) is prohibited under Neb. Rev. Stat. § 37-806 (8b) of the Nongame and Endangered Species Conservation Act.
- Under no circumstances should a massasauga be handled by inexperienced persons. This is for the safety of the workers as well as the snake. **Massasauga are venomous.**

Northern Long-eared Bat (*Myotis septentrionalis*)

Suitable summer roosting habitat for northern long-eared bat consist of forests or woodlots which contain suitable roost trees. In Nebraska, suitable roost trees consist of deciduous and/or pine live or dead trees or snags that are greater than or equal to 3-inch diameter at breast height (dbh) that exhibit peeling bark or have cracks, crevices or cavities. Linear features such as fencerows, riparian forests, and other wooded corridors are suitable for northern long-eared bat if they contain potential roost trees. Individual trees may be considered suitable habitat when they exhibit characteristics of suitable roost trees and are within 1,000-feet of other forested/wooded habitat.

Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat when they are within 1000-feet of suitable forested habitat (see above).

Examples of UNSUITABLE habitat for the Northern Long-eared Bat include:

- Individual trees that are greater than 1,000-feet from forested/wooded areas;
- Trees found in highly developed urban areas (e.g., street trees, downtown areas) – but note that northern long-eared bats sometimes use relatively extensive forested natural areas within urban areas for summer roosting habitat;
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees.

Is suitable summer habitat, as defined above, located within 1000-feet of the Action Area or the area of potential effect?

Unknown

No. Conservation measures are not needed for this species unless otherwise indicated. **SKIP any remaining questions for this species.**

Yes. The following conservation measures must be implemented in order to avoid adverse impacts on Northern Long-eared Bat.

NLEB CM-2: No removal of suitable trees or roosting structures between May 15 and July 31 (maternity roosting season).

Conservation Measures Agreement

INSTRUCTIONS: Under this section, select either A, B, or C. Regardless of your selection, a signature is required under the Certification section below.

A) I answered one or more questions with a "Yes"

Select an option below.

Option 1. After reviewing the conservation measure(s), I understand and agree to implement and/or incorporate them for those species above of which "Yes" was answered, indicating habitat is present. Sign and date on the line below. Your signature indicates acceptance of and responsibility for implementation of conservation measures. Sign and date the Certification section below, upload a signed and dated report into your project in CERT, and change the project edit status to FINAL. Once your report is uploaded, no additional correspondence with the Nebraska Game and Parks Commission is required.


Applicant/project proponent signature

2/25/26
Date

Option 2. After reviewing the conservation measure(s), I have concerns regarding one or more of them. Sign and date the Certification section below, upload a signed and dated report into your project in CERT, and change the project edit status to FINAL. Then, fill out the CERT Further Review Form located at <https://outdoornebraska.gov/conservation/environmental-review/cert-further-review-form/>.

B) I answered one or more questions with "Unknown"

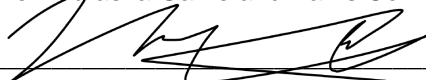
Contact the Nebraska Game and Parks Commission at ngpc.envreview@nebraska.gov or (402) 471-5423 with your question and project details.

C) I answered ALL the questions with a "No"

Sign and date the Certification section below. Upload a signed and dated report into your project in CERT and change the project edit status to FINAL. Once your report is uploaded, no additional correspondence with the Nebraska Game and Parks Commission is required.

Certification

I certify that ALL the project information in this report (including project location, project size/configuration, project type, project activities, answers to questions) is true, accurate and complete. If the project type, activities, location, size, or configuration of the project change; if a species listing status is reclassified; if a new species is listed; or if any of the answers to any questions asked in this report change, then this document is no longer valid, and re-consultation with the Nebraska Game and Parks Commission is required.


Applicant/project proponent signature

2/25/26
Date

Please upload this signed and dated report into your project in CERT, and change the project edit status to FINAL. For instructions, see the [Help tab](#).

Additional Considerations

Nebraska Game and Parks Commission

Environmental Review Team
2200 North 33 Street
Lincoln, NE 68503
Phone: (402) 471-5423
Email: ngpc.envreview@nebraska.gov

U.S. Fish and Wildlife Service

Nebraska Ecological Services
9325 South Alda Road
Wood River, NE 68883
Phone: (308) 382-6468
Email: nebraskaes@fws.gov

U.S. Army Corps of Engineers

Omaha Regulatory Office
8901 South 154 Street
Omaha, NE 68138
Phone: (402) 896-0896
Email: NE404Reg@usace.army.mil

The following federal laws contribute to the conservation and management of fish and wildlife resources in the United States: Endangered Species Act, Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act, Clean Water Act, and the Fish and Wildlife Coordination Act.

Bald and Golden Eagle Protection Act

The federal Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668-668c) provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*). Under the Eagle Act, “take” of eagles, their parts, nests or eggs is prohibited. Disturbance resulting in injury to an eagle or a decrease in productivity or nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior is a form of “take.”

Nebraska Specific Information

Bald eagles use mature, forested riparian areas near rivers, streams, lakes, and wetlands and occur along all the major river systems in Nebraska. The bald eagle southward migration begins as early as October and the wintering period extends from December-March. The golden eagle is found in arid open country with grassland for foraging in western Nebraska and usually near buttes or canyons which serve as nesting sites. Golden eagles are often a permanent resident in the Pine Ridge area of Nebraska. Additionally, many bald and golden eagles nest in Nebraska from mid-February through mid-July. Disturbances within 0.5-miles of an active nest or within line-of-sight of the nest could cause adult eagles to discontinue nest building or to abandon eggs. Both bald and golden eagles frequent river systems in Nebraska during the winter where open water and forested corridors provide feeding, perching, and roosting habitats, respectively. The frequency and duration of eagle use of these habitats in the winter depends upon ice and weather conditions. Human disturbances and loss of wintering habitat can cause undue stress leading to cessation of feeding and failure to meet winter thermoregulatory requirements. These affects can reduce the carrying capacity of preferred wintering habitat and reproductive success for the species.

To comply with the Eagle Act, it is recommended that the project proponent determine if the proposed project would impact bald or golden eagles or their habitats. This can be done by conducting a habitat assessment, surveying nesting habitat for active and inactive nests, and surveying potential winter roosting habitat to determine if it is being used by eagles. The area to be surveyed is dependent on the type of project; however for most projects we recommend surveying the project area and a ½ mile buffer around the project area. If it is determined that either species could be affected by the proposed project, the Commission recommends that the project proponent notify the Nebraska Game and Parks Commission as well as the Nebraska Field Office, U.S. Fish and Wildlife Service for recommendations to avoid “take” of bald and golden eagles.

Migratory Bird Treaty Act and Nebraska Revised Statute §37-540

We recommend the project proponent comply with the Migratory Bird Treaty Act (16 U.S.C. 703-712: Ch. 128 as amended) (MBTA). The project proponent should also comply with Nebraska Revised Statute §37-540, which prohibits take and destruction of nests or eggs of protected birds (as defined in Nebraska Revised Statute §37-237.01). Construction activities in grassland, wetland, stream, woodland, and river bank habitats that would result in impacts on birds, their nests or eggs protected under these laws should be avoided. Although the provisions of these laws are applicable year-round, most migratory bird nesting activity in Nebraska occurs during the period of April 1 to July 15. However, some migratory birds are known to nest outside of the aforementioned primary nesting season period. For example, raptors can be expected to nest in woodland habitats during February 1 through July 15, whereas sedge wrens, which occur in some wetland habitats, normally nest from July 15 to September 10. If development in this area

is planned to occur during the primary nesting season or at any other time which may result in impacts to birds, their nests or eggs protected under these laws, we request that the project proponent arrange to have a qualified biologist conduct a field survey of the affected habitats to determine the absence or presence of nesting migratory birds. If a field survey identifies the existence of one or more active bird nests that cannot be avoided by the planned construction activities, the Nebraska Game and Parks Commission and the Nebraska Field Office, U.S. Fish and Wildlife Service should be contacted immediately. For more information on avoiding impacts to migratory birds, their nests and eggs, or to report active bird nests that cannot be avoided by planned construction activities, please contact the U.S. Fish and Wildlife Service and/or the Nebraska Game and Parks Commission (contact information within report). Adherence to these guidelines will help avoid unnecessary impacts on migratory birds.

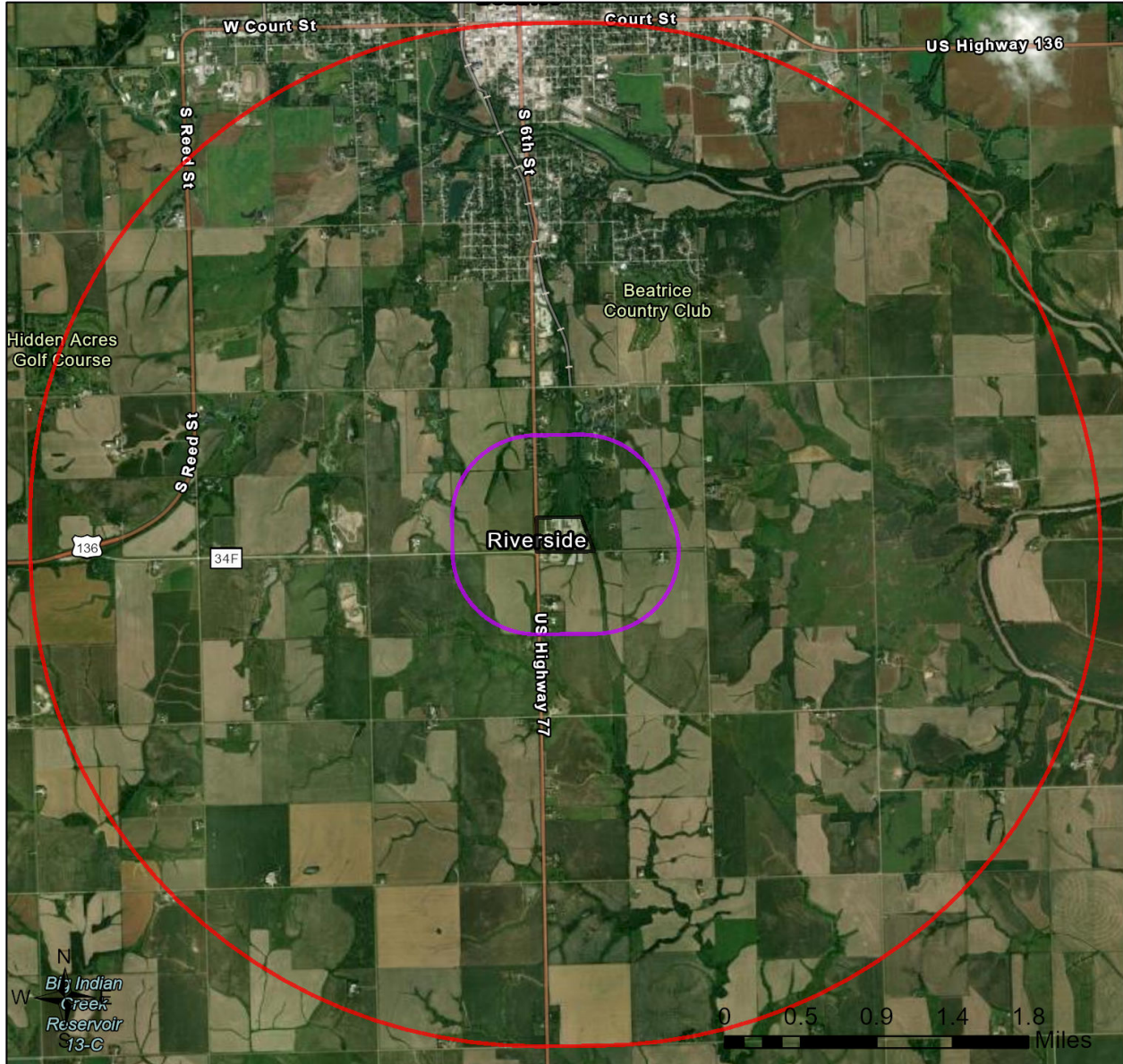
Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (FWCA) requires consultation with the U.S. Fish and Wildlife Service (Service) and the State fish and wildlife agency (i.e., Nebraska Game and Parks Commission) for the purpose of preventing loss of and damage to fish and wildlife resources in the planning, implementation, and operation of federal and federally funded, permitted, or licensed water resource development projects. This statute requires that federal agencies take into consideration the effect that the water related project would have on fish and wildlife resources, to take action to prevent loss or damage to these resources, and to provide for the development and improvement of these resources. The comments in this letter are provided as technical assistance only and are not the document required of the Secretary of the Interior pursuant to Section 2(b) of FWCA on any required federal environmental review or permit. This technical assistance is valid only for the described conditions and will have to be revised if significant environmental changes or changes in the proposed project take place. In order to determine whether the effects to fish and wildlife resources from the proposed project are being considered under FWCA, the lead federal agency must notify the Service in writing of how the comments and recommendations in this technical assistance letter are being considered into the proposed project.

Section 404 of the Clean Water Act

In general, the Nebraska Game and Parks Commission and the U.S. Fish and Wildlife Service have concerns for impacts to wetlands, streams and riparian habitats. We recommend that impacts to wetlands, streams, and associated riparian corridors be avoided and minimized, and that any unavoidable impacts to these habitats be mitigated. If any fill materials will be placed into waterways or wetlands, the U.S. Army Corps of Engineers Regulatory Office in Omaha should be contacted to determine if a 404 permit is needed.

Central Mainline Corridor Expansion Project – Beatrice Compressor Station Aerial Image Basemap With Locator Map



- 3-mile Information Buffer Boundary
- Project Review Boundary
- Project Boundary

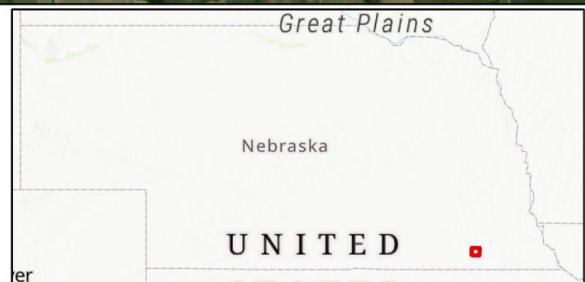
Project Size (acres): 40.54

Lat/Long (DD): 40.2207 / -96.7435

County(s): Gage

BUL(s):

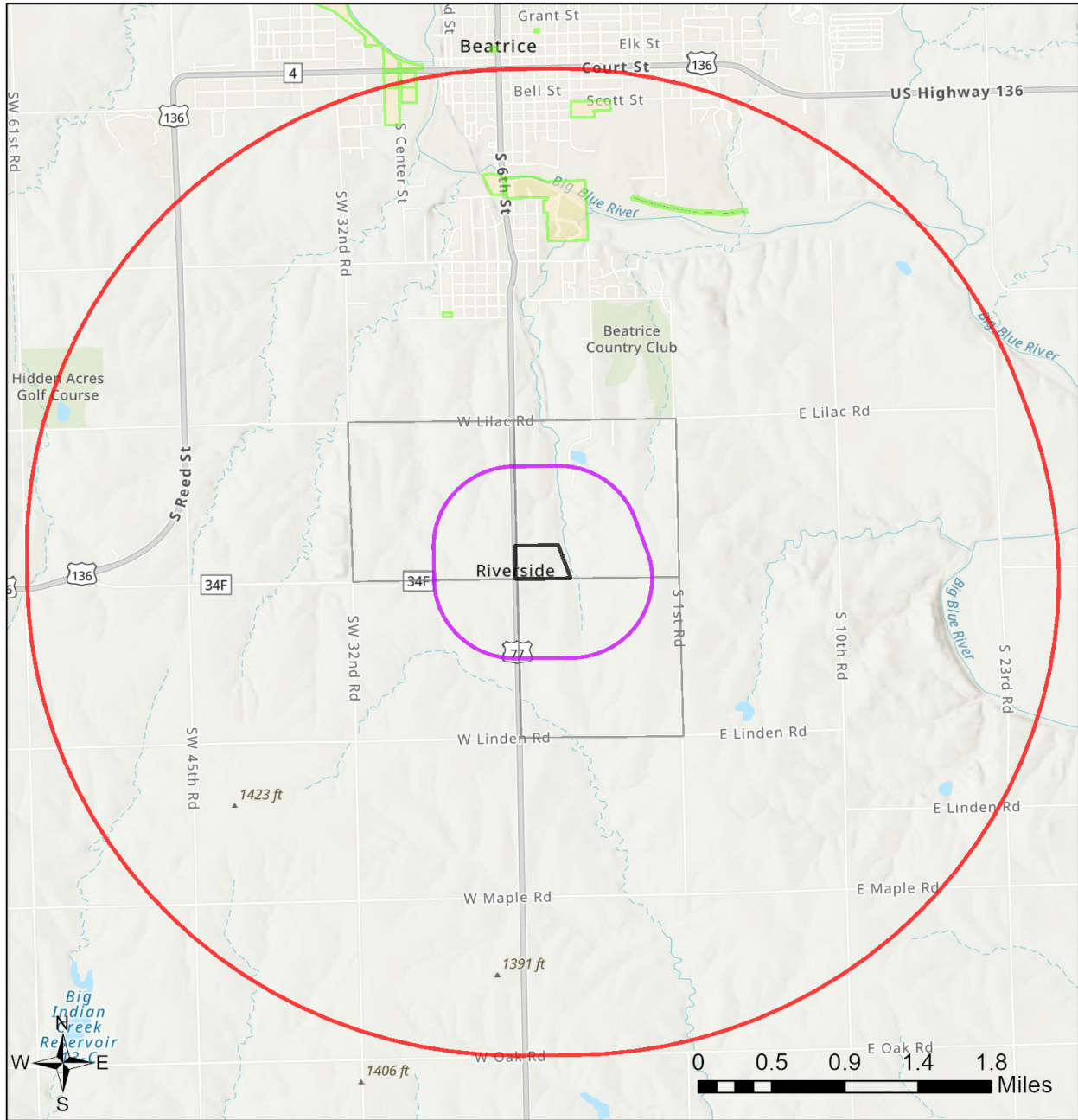
Township/Range/Section(s): T03R06ES15; T03R06ES16; T03R06ES22



Nebraska Game & Parks Commission, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS
 Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
 Earthstar Geographics

Central Mainline Corridor Expansion Project – Beatrice Compressor Station

Topographic Basemap With Sections and Protected Areas



- | | | |
|--|---|---|
| PAD (USGS) - boundaries | Designation | NGPC Properties |
| U.S. Fish and Wildlife Service | Regional Agency | Sections |
| U.S. Forest Service | State (NGPC) | 3-mile Information Buffer Boundary |
| National Park Service | Other State | Project Review Boundary |
| Bureau of Reclamation | NGO or Private | Project Boundary |
| | Other (City, Unknown) | |

Nebraska Game & Parks Commission, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS
 Esri, NASA, NGA, USGS

Table 1
Protected Areas within Immediate Vicinity of Project Area

This table has no results.

Table 2
Natural Communities and select Special Areas within Immediate Vicinity of Project Area

This table has no results.

Table 3
At-Risk Species Ranges within Project Area

Scientific Name	Common Name	Data Type	USFWS	State	SGCN	SRank	GRank	Taxonomic Group
Ammodramus henslowii	Henslow's Sparrow	Range			Tier 1	S1	G4	
Apobaetis lakota	Lakota Mayfly	Range			Tier 1	SNR	G2G3	
Argynnis idalia	Regal Fritillary	Range			Tier 1	S3	G3?	
Asio flammeus	Short-eared Owl	Range			Tier 1	S2	G5	
Atrytone arogos iowa	Iowa Skipper	Range			Tier 1	S1	G2G3T2T3	
Boloria myrina nebraskensis	Nebraska Fritillary	Range			Tier 1	SNR	G5?T3T4	
Calidris subruficollis	Buff-breasted Sandpiper	Range			Tier 1	S2N	G4	
Catocala nuptialis	Married Underwing	Range			Tier 1	SNR	G3	
Catocala whitneyi	Whitney Underwing	Range			Tier 1	S1	G2G3	
Danaus plexippus	Monarch	Range			Tier 1	S2	G4	
Erynnis martialis	Mottled Duskywing	Range			Tier 1	S2	G3	
Haliaeetus leucocephalus	Bald Eagle	Range			Tier 2	S3	G5	
Hesperia ottoe	Ottoe Skipper	Range			Tier 1	S2	G3	
Hylocichla mustelina	Wood Thrush	Range			Tier 1	S3	G4	
Lanius ludovicianus	Loggerhead Shrike	Range			Tier 1	S3	G4	
Lasionycteris noctivagans	Silver-haired Bat	Range			Tier 1	S3	G3G4	
Lasiurus borealis	Eastern Red Bat	Range			Tier 1	S3	G3G4	
Lasiurus cinereus	Hoary Bat	Range			Tier 1	S3	G3G4	
Myotis lucifugus	Little Brown Myotis	Range			Tier 1	SNR	G3G4	
Myotis septentrionalis	Northern Long-eared Myotis	Range	E	E	Tier 1	S1S2	G2G3	
Perimyotis subflavus	Tricolored Bat	Range			Tier 1	S3	G3G4	

Table 3
At-Risk Species Ranges within Project Area

Scientific Name	Common Name	Data Type	USFWS	State	SGCN	SRank	GRank	Taxonomic Group
Perognathus flavescens perniger	Plains Pocket Mouse	Range			Tier 1	SNR	G5TNR	
Problema byssus kumskaka	Byssus Skipper	Range			Tier 1	S1	G4TNR	
Sistrurus tergeminus	Western Massasauga	Range		T	Tier 1	S1	G3G4	
Tritogonia verrucosa	Pistolgrip	Range			Tier 1	S1	G4G5	

Table 4
Threatened or Endangered Species Ranges within Project Area

Scientific Name	Common Name	Data Type	USFWS	State	SGCN	SRank	GRank	Taxonomic Group
Myotis septentrionalis	Northern Long-eared Myotis	Range	E	E	Tier 1	S1S2	G2G3	
Sistrurus tergeminus	Western Massasauga	Range		T	Tier 1	S1	G3G4	

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – BEATRICE COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

Appendix D Federal and State-Listed Species Potentially Occurring in the ESB in Gage County

Common Name (Scientific Name)	Federal Status	State Status	County, State	Range or Habitat Requirements	Potential for Occurrence in Project Area
Northern Long-Eared Bat (<i>Myotis septentrionalis</i>)	Endangered	Endangered	Gage County, Nebraska	Summer roosting habitat: Contiguous forested areas, trees (live or dead) that retain their bark with cavities and crevices. Overwinter hibernacula: large caves and mines with large passages and entrances.	Unlikely to occur Project area is within species known range, but no suitable habitat was identified within the Project area and no tree clearing will occur. A technical assistance letter was obtained from the USFWS through the determination key results dated March 5, 2026. No effect
Monarch Butterfly (<i>Danaus plexippus</i>)	Proposed Threatened	None	Gage County, Nebraska	Habitat includes open vegetated areas where milkweed and other diverse flowering plants are present. Milkweed species are required for larval development.	Unlikely to occur Project area is within the species known range but does not contain suitable habitat (nectar sources and milkweed) and no individuals were identified during the 2025 field surveys. Northern joined the USFWS Nationwide Monarch Butterfly Candidate Conservation Agreement on Energy and Transportation Lands in 2020. As part of this Project component, Northern will utilize pollinator friendly plant seed mixtures within Northern owned properties, where feasible. No effect
Suckley's Cuckoo Bumble Bee (<i>Bombus suckleyi</i>)	Proposed Endangered	None	Gage County, Nebraska	Prairies, grasslands, meadows, woodlands, urban areas, and agricultural areas where host bumble bee nests are present.	Does not occur The species does not occur within the Project area. Extant populations of this species are not known in Nebraska at present. The last confirmed sighting of this species in the contiguous United States was in Oregon in 2016. No effect
Western Regal Fritillary (<i>Argynnis idalia occidentalis</i>)	Proposed Threatened	None	Gage County, Nebraska	Large, intact grasslands at a landscape scale, with violets for larvae; nectar sources for adults; and warm season, native warm-season bunch grasses for shelter at all life	Unlikely to occur Project area is within species known range, but no suitable habitat was identified within the Project area (violets). No effect

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – BEATRICE COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

Common Name (Scientific Name)	Federal Status	State Status	County, State	Range or Habitat Requirements	Potential for Occurrence in Project Area
				<p>stages. The grasslands need to be large and contiguous, generally more than 3.86 square miles, and be maintained by periodic disturbances. Violet species (<i>Viola</i> sp.) are required as the exclusive source of larval forage</p>	
<p>Western Massasauga (<i>Sistrurus tergeminus</i>)</p>	<p>None</p>	<p>Threatened</p>	<p>Gage County, Nebraska</p>	<p>Grassland habitats, such as tallgrass prairie and grassy fields adjacent to moist areas, such as marshland, wet prairies, and flood plains. This species relies exclusively on crayfish burrows for hibernation.</p>	<p>Unlikely to occur Project area is within species known range, but no suitable habitat was identified within proposed workspace. The Project area consists of an active compressor station with mowed grass. The NGPC ERR stated that conservation measures are not needed for this species; review is considered complete. No impact</p>

Guthrie Center Compressor Station

Central Mainline Corridor Expansion Project – Guthrie Center Compressor Station – Rare, Threatened, and Endangered Species Report

Guthrie County, Iowa



Stantec Consulting Services Inc.

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April 7, 2026

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CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

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CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

Acronyms List

BCR	Bird Conservation Region
BGEPA	Bald and Gold Eagle Protection Act
C	Celsius
ESB	Environmental Survey Boundary
ESA	Endangered Species Act
F	Fahrenheit
FERC	Federal Energy Regulatory Commission
IBA	Important Bird Area
IDNR	Iowa Department of Natural Resources
IPaC	Information for Planning and Consultation
MBTA	Migratory Bird Treaty Act
NABCI	North American Bird Conservation Initiative
Northern	Northern Natural Gas
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
PERMT	Permit and Environmental Review Management Tool
Project	Central Mainline Corridor Expansion Project – Guthrie Center Compressor Station
ROW	Right-of-way
RTE	Rare, threatened, or endangered
Stantec	Stantec Consulting Services Inc.
USC	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

1.0 Introduction

Stantec Consulting Services Inc. (Stantec) prepared this rare, threatened, and endangered (RTE) species report for the proposed Central Mainline Corridor Expansion Project – Guthrie Center compressor station (Project) located within Guthrie County, Iowa. The work was conducted at the request of Northern Natural Gas (Northern) in order to facilitate compliance with the Endangered Species Act (ESA) of 1973 (16 United States Code [USC] A-1535-1543, P. L. 93-205), as amended, and for Chapter 481B of the Code of Iowa – Endangered Plants and Wildlife (Iowa Code Annotated § 481B.1 – 10).

This report describes the methods used to conduct the RTE species habitat assessment and discusses the results of the investigation. This report does not serve as a Project clearance letter for the above referenced Project but provides a professional opinion on the potential for Project construction activities to affect federally and state listed RTE species known to inhabit Guthrie County, Iowa.

1.1 PROJECT DESCRIPTION

1.1.1 Overview

Northern owns and operates a natural gas transmission pipeline system, including pipeline and associated aboveground facilities in Iowa and Nebraska. Northern is filing an application with the Federal Energy Regulatory Commission (FERC) pursuant to Section 7 of the Natural Gas Act. The Project involves the construction of three new pipeline extensions consisting of approximately 26.15 miles of 20-inch- and 30-inch-diameter pipelines and associated aboveground compressor stations and other facilities in Iowa and Nebraska.

1.1.2 Guthrie Center Compressor Station

The remainder of this RTE report will focus on the Guthrie Center compressor station.

Northern will complete aboveground facility modifications within its Guthrie Center compressor station facility. The site is located on the west side of Dogwood Avenue, Section 16, Township 79 North, Range 33 West, Guthrie County, Iowa. The facility modifications will consist of piping and valves for new bidirectional flow through the station. All work will be completed within the existing facility footprint, which totals approximately 15.48 acres. The temporary workspace is proposed over 1.88 acres within the station. No expansion of the existing facility boundary is required. There will be no change to the horsepower or air emissions at the facility as a result of the proposed Project.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

2.0 Methods

Stantec conducted a desktop review for RTE species, United States Fish and Wildlife Service (USFWS) designated critical habitat, and potential for suitable habitat within the Northern-defined ESB based on review of USFWS database information and correspondence with the Iowa Department of Natural Resources (IDNR). Field surveys were used to confirm and supplement the desktop review and were used to assess possible presence of individuals or populations of protected species and species of conservation concern, as well as suitable habitat for those species as part of the wetland delineation throughout the ESB. Northern's ESB encompasses all proposed workspaces and typically provides a minimum of a 50-foot clearance buffer around workspaces.

2.1 DESKTOP ASSESSMENT

A desktop study of the ESB was completed in November 2025 and updated in February 2026. The desktop assessment included review of aerial imagery, USFWS National Wetlands Inventory (NWI) maps, the USFWS Information for Planning and Consultation (IPaC) tool (USFWS 2025), the IDNR Permit and Environmental Review Management Tool (PERMT) (IDNR 2026), state wildlife agency websites, and other available literature. Stantec biologists reviewed the aforementioned information to identify and become familiar with the natural features and listed species most likely to be encountered in within the ESB for the Project component (Project area). The USFWS Species List from IPaC is included in Appendix C.1 and the correspondence with the IDNR is included in Appendix C.2.

In preparation for field surveys, the USFWS IPaC tool was accessed to obtain an official list of federally listed RTE species, proposed, and candidate species and federally designated critical habitat that may be present within the ESB.

2.2 FIELD SURVEYS

Stantec conducted field surveys concurrent within the wetland delineations in November 2025 for presence of suitable habitats for RTE species, raptor stick-nests, and the presence/absence of raptors, including eagles, within vicinity of the Project. Field crews reviewed the list of protected species identified as having the potential to occur within the ESB and one-mile buffer of Project boundary. In addition, the field crews reviewed the applicable fact sheets for specific habitat requirements and identification criteria for the potential species. A follow up survey in late February 2026 was also conducted for raptor stick-nests. The field surveys consisted of pedestrian inspections to evaluate the presence/absence of suitable habitat and potential presence of listed species within the ESB.

To support the development of site descriptions, vegetation characterizations, and evaluations of potential RTE species suitable habitats, the field crew documented existing upland and wetland vegetative communities, and land cover characteristics present within the ESB. A photographic log showing representative vegetation communities is included as Appendix B.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

2.3 SPECIES EVALUATIONS

The potential for occurrence of each species within the Project area was summarized according to the categories listed below. Potential for occurrence categories are as follows.

- **Known to occur**—the species has been documented in the Project area by a reliable observer.
- **May occur**—the Project area is within the species' currently known range, and vegetation communities, soils, etc., resemble those known to be used by the species.
- **Unlikely to occur**—the Project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species, or the Project area is clearly outside the species' currently known range.
- **Does not occur**—the species does not occur in the Project area.

Those species listed by the USFWS and the IDNR were assigned to one of three categories of possible effect. The effects determinations include the following.

- **May affect, and is likely to adversely affect** — adverse effects to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial.
- **May affect, but not likely to adversely affect** — the proposed action may affect listed species and/or critical habitat; however, the effects are expected to be discountable, insignificant, or completely beneficial.
- **No effect** — the proposed action will not affect listed species or critical habitat.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

3.0 Results

3.1 ECOLOGICAL OVERVIEW

The Project area lies within Major Land Resource Area (MLRA) 108 – Illinois and Iowa Deep Loess and Drift. This MLRA lies within the Central Lowland province of the Interior Plains and originally supported prairie vegetation with scattered hardwood forests. The entire MLRA is covered by a layer of Peoria Loess. Topography is nearly level to hilly fill plain with steeper slopes along major streams (Natural Resources Conservation Service [NRCS] 2022).

The average annual precipitation in this region is 34 to 47 inches (850 to 1,200 millimeters). The region is primarily used to produce cash-crops, and many of the wet soils require artificial drainage for crop growth. Average annual temperatures range from 47 to 58 degrees F (8.3 to 14.2 degrees C). The freeze-free period averages about 180 days and ranges from 155 to 210 days (NRCS 2022).

3.2 VEGETATION

Land use within the Illinois and Iowa Deep Loess and Drift is approximately 69% active or fallow cropland, 11% grassland/pasture, 8% forest, 6% developed land, 2% mixed forest and 2% other land uses. Where grasslands still occur, they are characterized by big bluestem (*Andropogon gerardii*), Indiangrass (*Sorghastrum nutans*), prairie dropseed (*Sporobolus heterolepis*), and switchgrass (*Panicum virgatum*). White oak (*Quercus alba*), bur oak (*Quercus macrocarpa*), black oak (*Quercus velutina*), hickory species (*Carya* spp.), white ash (*Fraxinus americana*), American basswood (*Tilia americana*), sugar maple (*Acer saccharum*), and black walnut (*Juglans nigra*) grow on the better drained soils. Silver maple (*Acer saccharinum*), black willow (*Salix nigra*), eastern cottonwood (*Populus deltoides*), American elm (*Ulmus americana*), green ash (*Fraxinus pennsylvanica*), and American sycamore (*Platanus occidentalis*) grow on the flood plains (NRCS 2022).

3.2.1 Land Cover Types

During field surveys, Stantec identified two general land cover types within the Project area. Using observations of vegetative cover, hydrology, and/or the presence of developed structures – land in the Project area was classified as open land/grasslands or industrial/commercial. General descriptions of the land cover types encountered in the Project area are as follows.

- **Open Land Prairie/Grassland** – including non-forested herbaceous uplands, rangeland, scrub-shrub land, areas that were being used to grow hay, non-agricultural fields and/or other herbaceous areas that are dominated by a mixture of mid-grass or short-grass species. The vegetation also includes mowed areas and areas of mixed weeds and grass along roadsides.
- **Industrial/Commercial Land** – including electric power or gas utility right of way (ROW) or corridors, manufacturing or industrial plants, landfills, mines, quarries, commercial or retail facilities and roads.

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3.2.2 Vegetation Communities

Stantec identified one general type of vegetation communities within the Project area, identified below. Industrial/commercial land is not included within the list, as vegetation was not used to determine land use type.

- **Open Land/Grassland** – Open Land/Grassland areas within the ESB consisted of maintained open land and roadside rights-of-way (ROW). Common species within ROW included smooth brome (*Bromus inermis*), Indian grass (*Sorghastrum nutans*), Canada thistle (*Cirsium arvense*), and wild carrot (*Daucus carota*).

3.3 SPECIES EVALUATION

A review of federally and state-protected species, species of conservation concern, associated habitats, and other rare natural features that are known to occur within one mile of the Project ESB was conducted as described in Section 2.1. Information provided by the USFWS Illinois-Iowa Ecological Services Field Office and correspondence received from the IDNR through PERMT was included in the review of the Project component for potential impacts on these resources (see Appendix C.1 and C.2).

The federally and state-listed species with suitable habitat and/or potential to occur within the Project area are discussed below.

3.3.1 Federally Listed Species

Stantec obtained an official IPaC species list (Project Code: 2026-0048533) from the USFWS Illinois-Iowa field office on February 11, 2026 (Appendix C.1). The USFWS determined the following federally listed species may occur in the proposed Project area or may be affected by the proposed Project component actions in Iowa:

- Indiana Bat (*Myotis sodalis*) – Endangered
- Monarch Butterfly (*Danaus plexippus*) – Proposed threatened

These species and their habitat requirements are described below.

Indiana Bat

The Indiana bat is a small migratory bat that is colonial during the summer and winter. The species requires forests for foraging and roosting. Semi-open to closed forested habitat with open understory, forested edges, and riparian areas are often used foraging. Summer roosts are typically behind exfoliating bark of large, often dead, trees. Roost trees are often within canopy gaps in a forest, in a fence line, or along a wooded edge. In winter the bats are restricted to suitable underground hibernacula such as caves and mines. After hibernation females form maternity colonies in wooded areas for raising pups. The females will then return to the same colony every summer (USFWS 2026).

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Based on the desktop assessment and November 2025 field surveys, no suitable foraging or roosting habitat was identified within the Project area; and no tree removal is proposed. The Indiana bat is unlikely to occur within the Project area, and the Project component will have no effect on this species. The USFWS does not provide a determination key for the Indiana bat in this region. Since a no effect determination was made, no further consultation with the USFWS is required.

Monarch Butterfly

The monarch butterfly is a migratory butterfly that exists in two main populations within the United States divided by the Rocky Mountains: the eastern population that overwinters in the mountains of Mexico, and the western population that overwinters along the southern Pacific coast of California (USDA Forest Service undated). Monarch butterflies are a widespread species found in fields, prairies, savannahs, and most places where milkweed (*Asclepias* spp.), their host plant, occurs throughout the United States and southern Canada. This species generally occurs in areas with high densities of nectar sources, preferably those of native prairies. During late summer and migration, adults use nectar species such as black-eyed Susan (*Rudbeckia hirta*), narrow-leaved coneflower (*Echinacea angustifolia*), and rough blazing star (*Liatris aspera*) (MDNR 2026). However, the presence of milkweed is required for the survival of caterpillars, as it is the only plant on which they can feed (National Wildlife Federation undated).

During the November field surveys, Stantec did not observe milkweed, nectar sources, or individual monarch butterflies within the Project area (Figure 2, Appendix A). Therefore, the monarch butterfly is unlikely to occur in the Project area.

Northern is committed to the restoration and preservation of pollinator habitat. Northern joined the USFWS Nationwide Monarch Butterfly Candidate Conservation Agreement on Energy and Transportation Lands in 2020. As part of this Project component, Northern will utilize pollinator friendly plant seed mixtures within Northern owned properties, where feasible. Northern will offer landowners the option of utilizing pollinator friendly seed mixtures on privately owned lands within the Project workspaces where temporary impacts occur.

Stantec has determined that the Project component will not jeopardize the continued existence of the monarch butterfly and that the Project component will have no effect on this species. Additionally, the monarch butterfly is proposed for listing as threatened by the USFWS with a 4(d) Rule. The USFWS does not provide a determination key for the monarch butterfly in this region. Since a no effect determination was made, no further consultation with the USFWS is required.

3.3.2 State-Listed Species

Stantec used the IDNR PERMT in March 2026 to access information on state-listed species with potential to occur in the Project area. According to review by the IDNR received via email on March 10, 2026, no state-listed species records or significant natural communities were identified within the Project area. No further consultation with IDNR is required. This correspondence with the IDNR is included in Appendix C.2.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

3.4 MIGRATORY BIRDS

The USFWS states that bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) are unlikely to occur within the Project area. Bald and golden eagles are regulated by the Bald and Golden Eagle Protection Act (BGEPA). The Project component is located primarily within maintained open land and Northern's existing facility. Stantec completed raptor stick-nest surveys in November 2025 and February 2026, and no raptor or eagle nests were identified within the proposed Project ESB or within the vicinity of the Project ESB. In addition, no tree clearing will occur for this Project component. Therefore, the Project component is anticipated to have no effect on bald eagles.

The North American Bird Conservation Initiative (NABCI) maintains a list of Bird Conservation Regions (BCRs) (NABCI 2021). A BCR is an ecologically distinct region in North America with similar bird communities, habitats and resource management issues. There are 66 BCRs in North America. The Project area will be in BCR 22 – the Eastern Tallgrass Prairie. The USFWS Birds of Conservation Concern 2021 report (USFWS 2021) identifies 25 Birds of Conservation Concern within BCR 22.

Based on review of the USFWS IPaC Species list (USFWS 2025) for the ESB in Guthrie County, there are two Birds of Conservation Concern identified that may occur within the ESB. The protection of migratory birds is regulated by the Migratory Bird Treaty Act (MBTA). Any activity, intentional or unintentional, that results in take of migratory birds is prohibited unless otherwise permitted by the USFWS. Depending on the timing of construction, the Project component may potentially affect nests, eggs, and/or young birds protected under the MBTA. Therefore, pre-construction nest surveys are recommended if vegetation disturbance will occur within nesting seasons for migratory birds to avoid incidental take of nesting birds protected under the MBTA. The nest survey will determine the absence or presence of breeding birds and their nests. Pre-construction nest surveys should be completed according to the following procedures.

- No more than seven days before construction activities commence, pre-construction nest surveys for migratory birds will be completed by a qualified avian biologist. The area surveyed will include the proposed workspaces or areas where potentially suitable habitat has been identified.
- If an occupied (non-eagle) raptor nest is observed during the survey, construction activities will not be permitted within 100-foot buffer of it to avoid incidental take of protected raptor species. Furthermore, construction activities will not be permitted within a 660-foot buffer of any eagle nest site during the breeding season or until the fledglings have left the area. Northern will complete consultation with the USFWS, IDNR if an active raptor nest are observed, as required.
- If a nest, other than a raptor nest is observed during the survey, construction activities will not be permitted within a 15- to 30-foot buffer of the nest depending on the species and vertical offset from the nest.
- Upon completion of the nest surveys, the survey results will be submitted to the USFWS, IDNR, as appropriate. If breeding birds are not present, construction can proceed with no

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

restrictions. If breeding birds or active nests are present, additional consultation will be completed, as required.

Important Bird Areas (IBAs) are discrete sites that provide essential habitat for one or more bird species and include habitat for breeding, wintering, and/or migrating birds (Audubon 2021). The Project area does not cross an IBA. The nearest IBA to the Project area is the Dunbar Slough IBA, approximately 19 miles northeast of the Project area. Therefore, impacts to IBAs are not anticipated, as a result of the Project component.

3.4.1 County, State and Federal Lands

No county, state, or federal lands were identified within the Project area.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

4.0 Summary and Conclusions

Stantec performed a review of federally and state-protected species that may occur within the Project ESB. Based on the review, Stantec identified two federally listed species, the Indiana bat and monarch butterfly, that could occur within Guthrie County, Iowa.

Based on proposed Project component work, the desktop review and onsite habitat assessment conducted during the November 2025 field surveys, the Project component was determined to have no effect on the Indiana bat and monarch butterfly. Additionally, the Project component is anticipated to have no effect on migratory birds and/or bald and golden eagles, or IBAs; and no federally designated critical habitats occur within the Project area.

Review of state-listed species from the IDNR stated that no state-listed species records or significant natural communities were identified within the Project area. Additionally, no federally designated critical habitats or county, state, or federal lands occur within the Project area. No further consultation with USFWS or IDNR is required.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

5.0 Limitations and Warranty

Within the limitations of schedule, budget, and scope of work, Stantec warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species' listing status in effect at the time this evaluation was performed.

The results and conclusions of this report represent the best professional judgment of Stantec scientists. No other warranty, expressed or implied, is made. Please be aware that only the USFWS and/or lead federal agency can determine compliance with the ESA.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

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**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR
STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

Appendix A Figures

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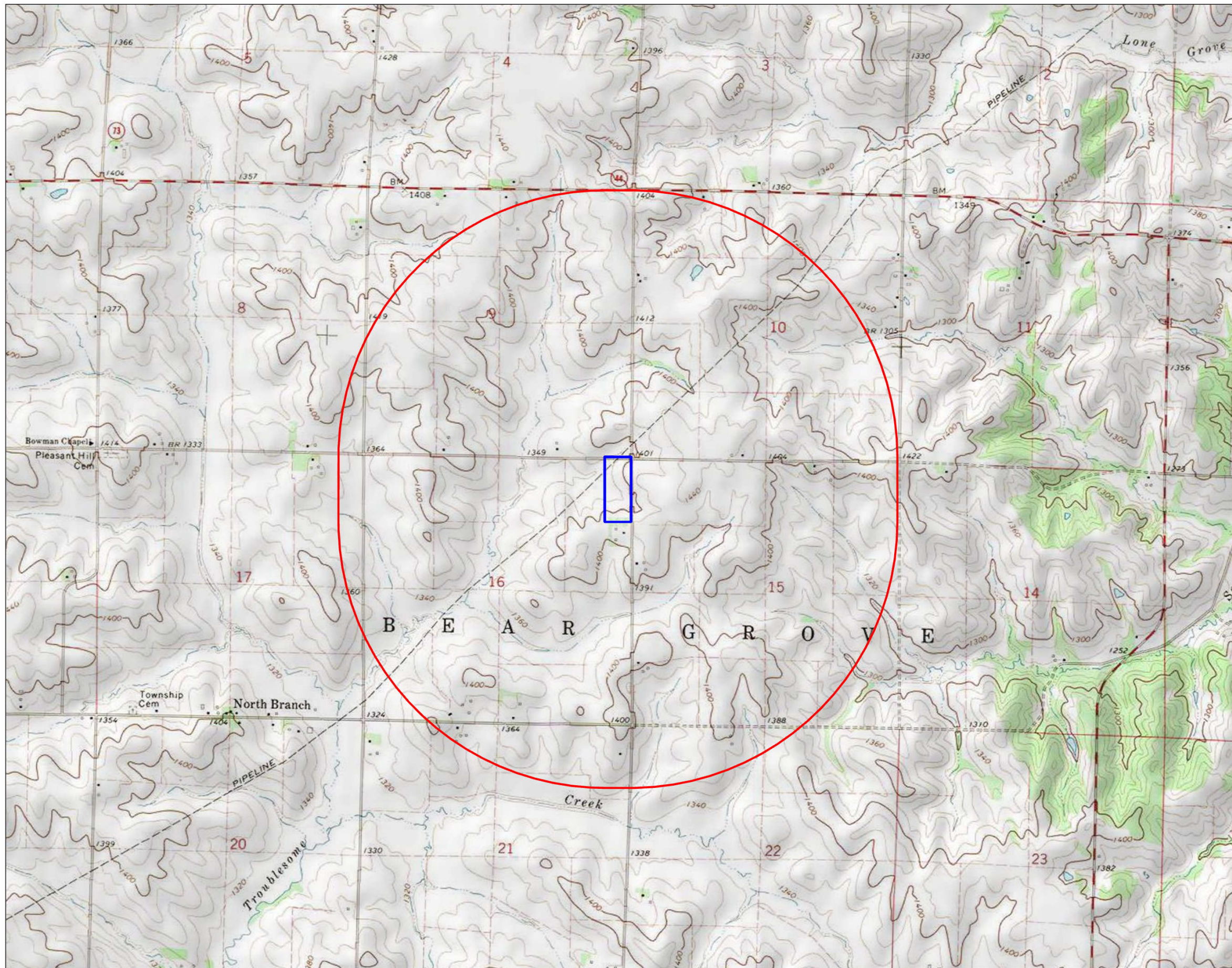
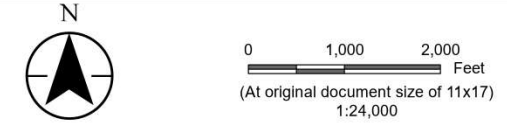


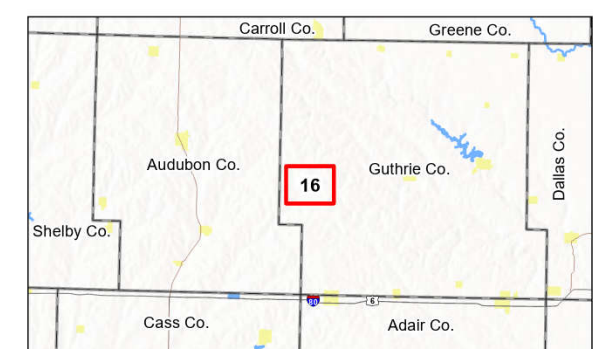


Figure No. **1**
 Title **Project Location & 1-Mile Buffer
 Guthrie Center Compressor Station**
 Client/Project **Northern Natural Gas
 Central Mainline Corridor Expansion Project** 172609221
 Project Location **Township of Bear Grove
 Guthrie County, Iowa** Prepared by JM on 2026-02-10
 TR by SF on 2026-02-12
 IR by SK on 2026-03-20



Legend
 Environmental Survey Boundary
 1-Mile Buffer



Notes
 1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: USGS 7.5' Topographic Quadrangles

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Figure No.

2

Title

Rare, Threatened, & Endangered Species Report Guthrie Center Compressor Station

Client/Project
Northern Natural Gas
Central Mainline Corridor Expansion Project 172609221

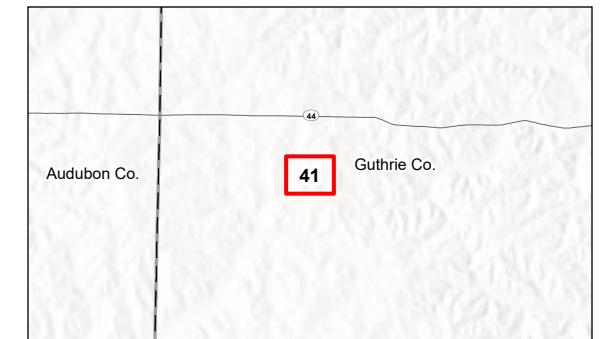
Project Location
Township of Bear Grove
Guthrie County, Iowa
Prepared by JM on 2026-02-09
TR by SF on 2026-02-27
IR by SK on 2026-03-23



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(At original document size of 11x17)
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Legend

- Existing Pipeline
- Environmental Survey Boundary
- Temporary Workspace
- △ TE Species
- △ Culvert
- Field Delineated Waterway Area
- National Hydrography Dataset
- Perennial Stream
- Intermittent Stream
- Canal/Ditch
- Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2023



**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR
STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

Appendix B Photographs



Photo 1. General view of open land, photo taken facing west.



Photo 2. General view of open land, photo taken facing north.



Photo 3. General view of open land, photo taken facing north.



Photo 4. General view of open land, photo taken facing east.



Photo 5. View of waterway GCS-S01, photo taken facing west.



Photo 6. View of waterway GCS-S01, photo taken facing southwest.



Photo 7. General view of existing Northern facilities, photo taken facing south.



Photo 8. General view of existing Northern facilities, photo taken facing southwest.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

Appendix C Endangered Species Lists and Agency Consultation

C.1 USFWS IPAC LIST OF SPECIES

Scientific Name	Common Name	Federal Listing	State Listing	State Rank ¹	Global Rank ²
Mammals					
<i>Myotis sodalis</i>	Indiana Bat	Endangered	Endangered	S1	G2
Insects					
<i>Danaus plexippus</i>	Monarch Butterfly	Proposed Threatened	None	S5	G4

¹ State Ranks: S1=critically imperiled S2=imperiled, S3=vulnerable to extirpation, S4=apparently secure, S5=secure, SX=presumed extirpated

² Global Ranks: G1=critically imperiled, G2=imperiled, G3=very rare and found locally G4=apparently secure, G5=secure.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
Phone: (309) 757-5800 Fax: (309) 757-5807

In Reply Refer To:

02/11/2026 17:09:19 UTC

Project Code: 2026-0048533

Project Name: Central Mainline Corridor - Guthrie Center Compressor Station

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat, if present, within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) **the accuracy of this species list should be verified after 90 days**. This verification can be completed formally or informally. You may verify the list by visiting the ECOSPHERE Information for Planning and Consultation (IPaC) website <https://ipac.ecosphere.fws.gov> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list.

Section 7 Consultation

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the U.S. Fish and Wildlife Service (Service) if they determine their project "may affect" listed species or designated critical habitat. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action may affect endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service to make "no effect" determinations. If you determine that your proposed action will have no effect on threatened or endangered species or their respective designated critical habitat, you do not need to seek concurrence with the Service.

Note: For some species or projects, IPaC will present you with *Determination Keys*. You may be able to use one or

more Determination Keys to conclude consultation on your action.

Technical Assistance for Listed Species

1. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain information on the species life history, species status, current range, and other documents by selecting the species from the thumbnails or list view and visiting the species profile page.

No Effect Determinations for Listed Species

1. If there are *no* species or designated critical habitats on the Endangered Species portion of the species list: conclude "no species and no critical habitat present" and document your finding in your project records. No consultation under ESA section 7(a)(2) is required if the action would result in no effects to listed species or critical habitat. Maintain a copy of this letter and IPaC official species list for your records.
2. If any species or designated critical habitat are listed as potentially present in the **action area** of the proposed project the project proponents are responsible for determining if the proposed action will have "no effect" on any federally listed species or critical habitat. No effect, with respect to species, means that no individuals of a species will be exposed to any consequence of a federal action or that they will not respond to such exposure.
3. If the species habitat is not present within the action area or current data (surveys) for the species in the action area are negative: conclude "no species habitat or species present" and document your finding in your project records. For example, if the project area is located entirely within a "developed area" (an area that is already graveled/paved or supports structures and the only vegetation is limited to frequently mowed grass or conventional landscaping, is located within an existing maintained facility yard, or is in cultivated cropland conclude no species habitat present. Be careful when assessing actions that affect: 1) rights-of-ways that contains natural or semi-natural vegetation despite periodic mowing or other management; structures that have been known to support listed species (example: bridges), and 2) surface water or groundwater. Several species inhabit rights-of-ways, and you should carefully consider effects to surface water or groundwater, which often extend outside of a project's immediate footprint.
4. Adequacy of Information & Surveys - Agencies may base their determinations on the best evidence that is available or can be developed during consultation. Agencies must give the benefit of any doubt to the species when there are any inadequacies in the information. Inadequacies may include uncertainty in any step of the analysis. To provide adequate information on which to base a determination, it may be appropriate to conduct surveys to determine whether listed species or their habitats are present in the action area. Please contact our office for more information or see the survey guidelines that the Service has made available in IPaC.

May Effect Determinations for Listed Species

1. If the species habitat is present within the action area and survey data is unavailable or inconclusive: assume the species is present or plan and implement surveys and interpret results in coordination with our office. If assuming species present or surveys for the species are positive continue with the may affect determination process. May affect, with respect to a species, is the appropriate conclusion when a species might be exposed to a consequence of a federal action and could respond to that exposure. For critical habitat, 'may affect' is the appropriate conclusion if the action area overlaps with mapped areas of critical habitat and an essential physical or biological feature may be exposed to a consequence of a federal action and could change in response to that exposure.
2. Identify stressors or effects to the species and to the essential physical and biological features of critical habitat that overlaps with the action area. Consider all consequences of the action and assess the potential for each life stage of the species that occurs in the action area to be exposed to the stressors. Deconstruct the action into its component parts to be sure that you do not miss any part of the action that could cause effects to the species or physical and biological features of critical habitat. Stressors that affect species' resources may have consequences even if the species is not present when the project is implemented.
3. If no listed or proposed species will be exposed to stressors caused by the action, a 'no effect' determination may be appropriate – be sure to separately assess effects to critical habitat, if any overlaps with the action

area. If you determined that the proposed action or other activities that are caused by the proposed action may affect a species or critical habitat, the next step is to describe the manner in which they will respond or be altered. Specifically, to assess whether the species/critical habitat is "not likely to be adversely affected" or "likely to be adversely affected."

4. Determine how the habitat or the resource will respond to the proposed action (for example, changes in habitat quality, quantity, availability, or distribution), and assess how the species is expected to respond to the effects to its habitat or other resources. Critical habitat analyses focus on how the proposed action will affect the physical and biological features of the critical habitat in the action area. If there will be only beneficial effects or the effects of the action are expected to be insignificant or discountable, conclude "may affect, not likely to adversely affect" and submit your finding and supporting rationale to our office and request concurrence.
5. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, check IPaC for species-specific Section 7 guidance and conservation measures to determine whether there are any measures that may be implemented to avoid or minimize the negative effects. If you modify your proposed action to include conservation measures, assess how inclusion of those measures will likely change the effects of the action. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, contact our office for assistance.
6. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

For additional information on completing Section 7 Consultation including a Glossary of Terms used in the Section 7 Process, information requirements for completing Section 7, and example letters visit the Midwest Region Section 7 Consultations website at: <https://www.fws.gov/office/midwest-region-headquarters/midwest-section-7-technical-assistance>.

You may find more specific information on completing Section 7 on communication towers and transmission lines on the following websites:

- Incidental Take Beneficial Practices: Power Lines - <https://www.fws.gov/story/incidental-take-beneficial-practices-power-lines>
- Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. - <https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation>

Tricolored Bat Update

On September 14, 2022, the Service published a proposal in the Federal Register to list the tricolored bat (*Perimyotis subflavus*) as endangered under the Endangered Species Act (ESA). The Service has up to 12-months from the date the proposal published to make a final determination, either to list the tricolored bat under the Act or to withdraw the proposal. The Service determined the bat faces extinction primarily due to the rangewide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across North America. Because tricolored bat populations have been greatly reduced due to WNS, surviving bat populations are now more vulnerable to other stressors such as human disturbance and habitat loss. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective (typically 30 days after publication of the final rule in the Federal Register), the prohibitions against jeopardizing its continued existence and "take" will apply. Therefore, if your future or existing project has the potential to adversely affect tricolored bats after the potential new listing goes into effect, we recommend that the effects of the project on tricolored bat and their habitat be analyzed to determine whether authorization under ESA section 7 or 10 is necessary. Projects with an existing section 7 biological opinion may require

reinitiation of consultation, and projects with an existing section 10 incidental take permit may require an amendment to provide uninterrupted authorization for covered activities. Contact our office for assistance.

Other Trust Resources and Activities

Bald and Golden Eagles

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act, as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, please contact our office for further coordination. For more information on permits and other eagle information visit our website <https://www.fws.gov/library/collections/bald-and-golden-eagle-management>. We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Illinois-Iowa Ecological Services Field Office

Illinois & Iowa Ecological Services Field Office

1511 47th Ave

Moline, IL 61265-7022

(309) 757-5800

PROJECT SUMMARY

Project Code: 2026-0048533

Project Name: Central Mainline Corridor - Guthrie Center Compressor Station

Project Type: Natural Gas Distribution

Project Description: Northern Natural Gas (Northern) is proposing to install new piping at the Guthrie Center Compressor Station in Guthrie County, Iowa as part of the Central Mainline Corridor Project.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.658556000000004,-94.68729400456408,14z>



Counties: Guthrie County, Iowa

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act (MBTA). Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The data in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the Supplemental Information on Migratory Birds and Eagles document to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Grasshopper Sparrow <i>Ammodramus savannarum perpallidus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

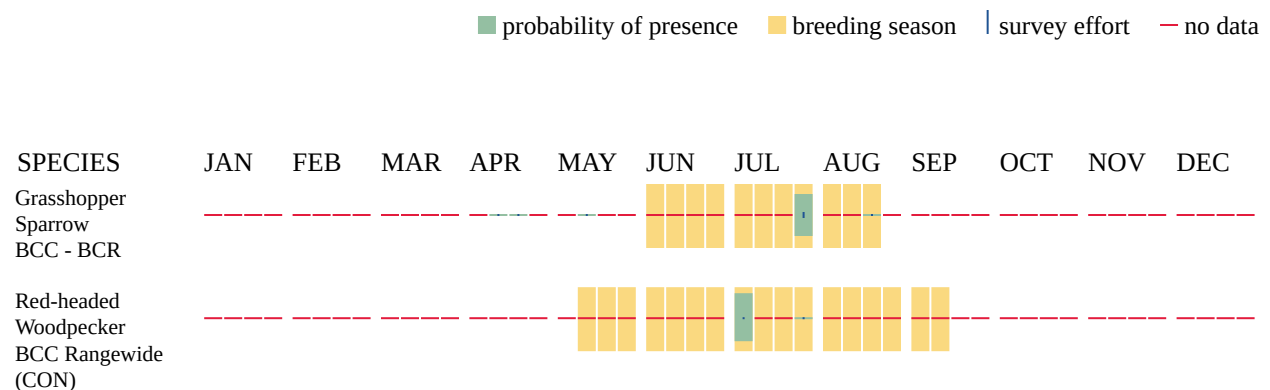
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED.
PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency: Stantec
Name: Mia Bauer
Address: One Carlson Parkway
Address Line 2: Suite 100
City: Plymouth
State: MN
Zip: 55447
Email: mia.bauer@stantec.com
Phone: 6124273725

**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR
STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

C.2 IDNR CORRESPONDENCE

From: casey.laskowski@dnr.iowa.gov
To: [Steele, Mason](#)
Subject: 2026-0341 Environmental Review Request - Central Mainline Corridor Expansion Project – Guthrie Compressor Station
Date: Tuesday, March 10, 2026 12:58:44 PM

You don't often get email from casey.laskowski@dnr.iowa.gov. [Learn why this is important](#)

41.6586/-94.6873; Guthrie County
Sec. 9/T79N/R33W

Thank you for inviting the Department to comment on the impact of this project. The Department has searched for records of rare species and significant natural communities in the project area and found no site-specific records that would be impacted by this project. However, these records and data are not the result of thorough field surveys. If listed species or rare communities are found during the planning or construction phases, additional studies and/or mitigation may be required.

This email is a record of review for protected species, rare natural communities, state lands and waters in the project area, including review by personnel representing state parks, preserves, recreation areas, fisheries and wildlife but does not include comment from the Environmental Services Division of this Department. This email does not constitute a permit. Other permits may be required from the Department or other state or federal agencies before work begins on this project.

If you have questions about this letter or require further information, please contact me at (515) 330-6432.

Sincerely,

Casey Laskowski | Environmental Specialist
Iowa Department of Natural Resources
P 515-330-6432 | F 515-725-8202 | 6200 Park Avenue Suite 200, Des Moines, IA 50321
www.iowadnr.gov



Caution: This email originated from outside of Stantec. Please take extra precaution.

Attention: Ce courriel provient de l'extérieur de Stantec. Veuillez prendre des précautions supplémentaires.

Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – GUTHRIE CENTER COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

Appendix D Federal and State-Listed Species Potentially Occurring in the ESB in Guthrie County

Common Name (Scientific Name)	Federal Status	State Status	County, State	Range or Habitat Requirements	Potential for Occurrence in Project Area
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	Endangered	Guthrie County, Iowa	Summer roosting habitat: Semi-open to closed forested habitat with open understory, forested edges, and riparian areas that contain trees with exfoliating bark. Overwinter hibernacula: large caves and mines with large passages and entrances.	Unlikely to occur Project area is within the species known range, however no suitable habitat was found within the Project area and no tree clearing will occur. Therefore, this species is unlikely to occur within the Project area. No effect
Monarch Butterfly (<i>Danaus plexippus</i>)	Proposed Threatened	None	Guthrie County, Iowa	Habitat includes open vegetated areas where milkweed and other diverse flowering plants are present. Milkweed species are required for larval development.	Unlikely to occur Project area is within the species known range but does not contain suitable habitat (open vegetated areas) and no individuals were identified during the 2025 field surveys. Northern joined the USFWS Nationwide Monarch Butterfly Candidate Conservation Agreement on Energy and Transportation Lands in 2020. As part of this Project component, Northern will utilize pollinator friendly plant seed mixtures within Northern owned properties, where feasible. No effect

Oakland Compressor Station

Central Mainline Corridor Expansion Project – Oakland Compressor Station – Rare, Threatened, and Endangered Species Report

Pottawattamie County, Iowa



Stantec Consulting Services Inc.

Prepared by:
Stantec Consulting Services Inc.
One Carlson Parkway North, Suite 100
Plymouth, Minnesota 55447-4440

Prepared for:
Terry Plucker
Northern Natural Gas
1111 South 103rd Street
Omaha, Nebraska 68124

April 7, 2026

Sign-off Sheet

This document entitled Central Mainline Corridor Expansion Project – Oakland Compressor Station – Rare, Threatened, and Endangered Species Report was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Northern Natural Gas (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by 
Mia Bauer, Environmental Scientist

Reviewed by 
Bruce Galer, PG, CMWP, Associate, Senior Environmental Scientist

Approved by 
Nathan Noland, Associate, Environmental Scientist

**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – OAKLAND COMPRESSOR STATION
– RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

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CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – OAKLAND COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

Acronyms List

BCR	Bird Conservation Region
BGEPA	Bald and Gold Eagle Protection Act
C	Celsius
ESB	Environmental Survey Boundary
ESA	Endangered Species Act
F	Fahrenheit
FERC	Federal Energy Regulatory Commission
IBA	Important Bird Area
IDNR	Iowa Department of Natural Resources
IPaC	Information for Planning and Consultation
MBTA	Migratory Bird Treaty Act
NABCI	North American Bird Conservation Initiative
Northern	Northern Natural Gas
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
PERMT	Permit and Environmental Review Management Tool
Project	Central Mainline Corridor Expansion Project – Oakland Compressor Station
ROW	Right-of-way
RTE	Rare, threatened, or endangered
SCBB	Suckley's Cuckoo Bumble Bee
Stantec	Stantec Consulting Services Inc.
USC	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – OAKLAND COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

1.0 Introduction

Stantec Consulting Services Inc. (Stantec) prepared this rare, threatened, and endangered (RTE) species report for the proposed Central Mainline Corridor Expansion Project – Oakland compressor station (Project) located within Pottawattamie County, Iowa. The work was conducted at the request of Northern Natural Gas (Northern) in order to facilitate compliance with the Endangered Species Act (ESA) of 1973 (16 United States Code [USC] A-1535-1543, P. L. 93-205), as amended, and for Chapter 481B of the Code of Iowa – Endangered Plants and Wildlife (Iowa Code Annotated § 481B.1 – 10).

This report describes the methods used to conduct the RTE species habitat assessment and discusses the results of the investigation. This report does not serve as a Project clearance letter for the above referenced Project but provides a professional opinion on the potential for Project construction activities to affect federally and state listed RTE species known to inhabit Pottawattamie County, Iowa.

1.1 PROJECT DESCRIPTION

1.1.1 Overview

Northern owns and operates a natural gas transmission pipeline system, including pipeline and associated aboveground facilities in Iowa and Nebraska. Northern is filing an application with the Federal Energy Regulatory Commission (FERC) pursuant to Section 7 of the Natural Gas Act. The Project involves the construction of three new pipeline extensions consisting of approximately 26.15 miles of 20-inch- and 30-inch-diameter pipelines and associated compressor stations and other facilities in Iowa and Nebraska.

1.1.2 Oakland Compressor Station

The remainder of this RTE report will focus on the Oakland compressor station.

Northern will complete aboveground facility modifications within its existing Oakland compressor station facility. The site is located on the south side of State Highway 6, Section 11, Township 75 North, Range 39 West, Pottawattamie County, Iowa. The facility modifications will consist of piping and valves for new bidirectional flow through the station. All work will be completed within the facility property. All work will be completed within the existing facility footprint, which totals approximately 34.56 acres. Temporary workspace will include 0.73 acre inside the facility footprint. No expansion of the existing facility boundary is required. There will be no change to the horsepower or air emissions at the facility as a result of the proposed Project.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – OAKLAND COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

2.0 Methods

Stantec conducted a desktop review for RTE species, United States Fish and Wildlife Service (USFWS) designated critical habitat, and potential for suitable habitat within the Northern-defined ESB based on review of USFWS database information and correspondence with the Iowa Department of Natural Resources (IDNR). Field surveys were used to confirm and supplement the desktop review and were used to assess possible presence of individuals or populations of protected species and species of conservation concern, as well as suitable habitat for those species as part of the wetland delineation throughout the ESB. Northern's ESB encompasses all proposed workspaces and typically provides a minimum of a 50-foot clearance buffer around workspaces.

2.1 DESKTOP ASSESSMENT

A desktop study of the ESB was completed in November 2025 and updated in February 2026. The desktop assessment included review of aerial imagery, USFWS National Wetlands Inventory (NWI) maps, the USFWS Information for Planning and Consultation (IPaC) tool (USFWS 2025), the IDNR Permit and Environmental Review Management Tool (PERMT) (IDNR 2026), state wildlife agency websites, and other available literature. Stantec biologists reviewed the aforementioned information to identify and become familiar with the natural features and listed species most likely to be encountered in within the ESB for the Project component (Project area). The USFWS Species List from IPaC is included in Appendix C.1 and the correspondence received from the IDNR, is included in Appendix C.2.

In preparation for field surveys, the USFWS IPaC tool was accessed to obtain an official list of federally listed RTE species, proposed, and candidate species and federally designated critical habitat that may be present within the ESB.

2.2 FIELD SURVEYS

Stantec conducted field surveys concurrent within the wetland delineations in November 2025 for presence of suitable habitats for RTE species, raptor stick-nests, and the presence/absence of raptors, including eagles, within vicinity of the Project. Field crews reviewed the list of protected species identified as having the potential to occur within the ESB and one-mile buffer of Project boundary. In addition, the field crews reviewed the applicable fact sheets for specific habitat requirements and identification criteria for the potential species. The field surveys consisted of pedestrian inspections to evaluate the presence/absence of suitable habitat and potential presence of listed species within the ESB.

To support the development of site descriptions, vegetation characterizations, and evaluations of potential RTE species suitable habitats, the field crew documented existing upland and wetland vegetative communities, and land cover characteristics present within the ESB. A photographic log showing representative vegetation communities is included as Appendix B.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – OAKLAND COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

2.3 SPECIES EVALUATIONS

The potential for occurrence of each species within the Project area was summarized according to the categories listed below. Potential for occurrence categories are as follows.

- **Known to occur**—the species has been documented in the Project area by a reliable observer.
- **May occur**—the Project area is within the species' currently known range, and vegetation communities, soils, etc., resemble those known to be used by the species.
- **Unlikely to occur**—the Project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species, or the Project area is clearly outside the species' currently known range.
- **Does not occur**—the species does not occur in the Project area.

Those species listed by the USFWS and the IDNR were assigned to one of three categories of possible effect. The effects determinations include the following.

- **May affect, and is likely to adversely affect** — adverse effects to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial.
- **May affect, but not likely to adversely affect** — the proposed action may affect listed species and/or critical habitat; however, the effects are expected to be discountable, insignificant, or completely beneficial.
- **No effect** — the proposed action will not affect listed species or critical habitat.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – OAKLAND COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

3.0 Results

3.1 ECOLOGICAL OVERVIEW

The Project area lies within Major Land Resource Area (MLRA) 107 – Iowa and Missouri Deep Loess Hills. This region is almost entirely overlain with loess deposits varying in thickness across the Loess Hills. Topography is rolling to hilly till plain with some steep slopes on valley sides and broad valley floors along a few large rivers (Natural Resources Conservation Service [NRCS] 2022).

The average annual precipitation in this region is 28 to 44 inches (700 to 1,120 millimeters). The region has a well-established drainage network resulting in few lakes and ponds. Average annual temperatures range from 44 to 56 degrees F (6.7 to 13.4 degrees C). The freeze-free period averages about 175 days and ranges from 145 to 210 days (NRCS 2022).

3.2 VEGETATION

Land use within the Iowa and Missouri Deep Loess Hills is approximately 70% active or fallow cropland, 12% grassland/pasture, 8% forest, 8% developed land, and 2% other land uses. Prairies within the region are characterized by grama species (*Bouteloua* spp.), muhly species (*Muhlenbergia* spp.), wheatgrass (*Agropyron* spp.), little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), Indiangrass (*Sorghastrum nutans*), and prairie dropseed (*Sporobolus heterolepis*). Upland wooded areas often contain white oak (*Quercus alba*), bur oak (*Quercus macrocarpa*), black oak (*Quercus velutina*), chinquapin oak (*Quercus muehlenbergii*), northern red oak (*Quercus rubra*), bitternut hickory (*Carya cordiformis*), shagbark hickory (*Carya ovata*), American basswood (*Tilia americana*), and black walnut (*Juglans nigra*). Wooded areas on floodplains commonly include silver maple (*Acer saccharinum*), eastern cottonwood (*Populus deltoides*), American elm (*Ulmus americana*), green ash (*Fraxinus pennsylvanica*), and willow species (*Salix* spp.) (NRCS 2022).

3.2.1 Land Cover Types

During field surveys, Stantec identified two general land cover types within the Project area. Using observations of vegetative cover, hydrology, and/or the presence of developed structures – land in the Project area was classified as open land/grasslands or industrial/commercial. General descriptions of the land cover types encountered in the Project area are as follows.

- **Open Land Prairie/Grassland** – including non-forested herbaceous uplands, rangeland, scrub-shrub land, areas that were being used to grow hay, non-agricultural fields and/or other herbaceous areas that are dominated by a mixture of mid-grass or short-grass species. The vegetation also includes mowed areas and areas of mixed weeds and grass along roadsides.
- **Industrial/Commercial Land** – including electric power or gas utility right of way (ROW) or corridors, manufacturing or industrial plants, landfills, mines, quarries, commercial or retail facilities and roads.

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3.2.2 Vegetation Communities

Stantec identified one general type of vegetation communities within the Project area, identified below. Industrial/commercial land is not included within the list, as vegetation was not used to determine land use type.

- **Open Land/Grassland** – Open Land/Grassland areas within the ESB consisted of maintained open land and roadside rights-of-way (ROW). Common species included Kentucky bluegrass (*Poa pratensis*), yellow foxtail (*Setaria pumila*), Indiangrass, quackgrass (*Elymus repens*), and switchgrass (*Panicum virgatum*).

3.3 SPECIES EVALUATION

A review of federally and state-protected species, species of conservation concern, associated habitats, and other rare natural features that are known to occur within one mile of the Project ESB was conducted as described in Section 2.1. Information provided by the USFWS Illinois-Iowa Ecological Services Field Office and correspondence received from the IDNR through PERMT was included in the review of the Project component for potential impacts on these resources (see Appendix C.1 and C.2).

The federally and state-listed species with suitable habitat and/or potential to occur within the Project area are discussed below.

3.3.1 Federally Listed Species

Stantec obtained an official IPaC species list (Project Code: 2026-0048548) from the USFWS Illinois-Iowa field office on February 11, 2026 (Appendix C.1). The USFWS determined the following federally listed species may occur in the proposed Project area or may be affected by the proposed Project component actions in Iowa:

- Piping Plover (*Charadrius melodus*) – Threatened
- Monarch Butterfly (*Danaus plexippus*) – Proposed threatened
- Suckley's Cuckoo Bumble Bee (*Bombus suckleyi*) – Proposed endangered

These species and their habitat requirements are described below.

Piping Plover

The piping plover is migratory shorebird that uses a variety of habitats in response to local weather and tidal conditions. Habitats include sand spits, small islands, tidal flats, shoals and sandbars with inlets along the coast. Foraging habitat includes sandy mud flats, ephemeral pools and seasonally emergent seagrass beds with abundant invertebrates. In the northern Great Plains, piping plovers' nest on the unvegetated shorelines of alkaline lakes, reservoirs, or river sandbars (USFWS 2026). Although an excavated pond and two streams were identified within the Project area during the 2025 field investigations, these features were noted to be constructed/manipulated within a manicured lawn area to be utilized for stormwater flow. No shoreline, mud flats, or pools are

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located within the Project area that consists solely of an active Northern compressor station. Therefore, the piping plover is unlikely to occur within the Project area.

Stantec has determined that the Project will have no effect on the piping plover due to a lack of suitable habitat within the Project area. The USFWS does not provide a determination key for the piping plover in this region. Since a no effect determination was made, no further consultation with the USFWS is required.

Monarch Butterfly

The monarch butterfly is a migratory butterfly that exists in two main populations within the United States divided by the Rocky Mountains: the eastern population that overwinters in the mountains of Mexico, and the western population that overwinters along the southern Pacific coast of California (USDA Forest Service undated). Monarch butterflies are a widespread species found in fields, prairies, savannahs, and most places where milkweed (*Asclepias* spp.), their host plant, occurs throughout the United States and southern Canada. This species generally occurs in areas with high densities of nectar sources, preferably those of native prairies. During late summer and migration, adults use nectar species such as black-eyed Susan (*Rudbeckia hirta*), narrow-leaved coneflower (*Echinacea angustifolia*), and rough blazing star (*Liatris aspera*) (MDNR 2026). However, the presence of milkweed is required for the survival of caterpillars, as it is the only plant on which they can feed (National Wildlife Federation undated).

During the November 2025 field surveys, Stantec did not observe milkweed, nectar sources, or individual monarch butterflies within the Project area (Figure 2, Appendix A). Therefore, the monarch butterfly is unlikely to occur in the Project area.

Northern is committed to the restoration and preservation of pollinator habitat. Northern joined the USFWS Nationwide Monarch Butterfly Candidate Conservation Agreement on Energy and Transportation Lands in 2020. As part of this Project component, Northern will utilize pollinator friendly plant seed mixtures within Northern owned properties, where feasible. Northern will offer landowners the option of utilizing pollinator friendly seed mixtures on privately owned lands within the Project workspaces where temporary impacts occur.

Stantec has determined that the Project component will not jeopardize the continued existence of the monarch butterfly and that the Project component will have no effect on this species. Additionally, the monarch butterfly is proposed for listing as threatened by the USFWS with a 4(d) Rule. The USFWS does not provide a determination key for the monarch butterfly in this region. Since a no effect determination was made, no further consultation with the USFWS is required.

Suckley's Cuckoo Bumble Bee

Suckley's cuckoo bumble bee (SCBB) is parasitic bumble bee that relies exclusively on the nests of other bumble bees as hosts. The SCBB historically occurs across a wide range of habitats, including prairies, grasslands, meadows, woodlands, urban areas, and agricultural areas where host bumble bee nests are present. This species has historically occurred in portions of western

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Iowa, but no extant populations are known to occur in Iowa at present. The closest record of this species to the Project area is from eastern Nebraska pre-2000. The last confirmed sighting of SCBB in the contiguous United States was in Oregon in 2016 (USFWS 2024). While agricultural areas surround the ESB, the open land within the ESB is routinely mowed and the Project area is on the far eastern edge of the SCBB historical range where it has not been observed in the recent past. Therefore, the SCBB does not occur within the Project area.

Stantec has determined that the Project will have no effect on the SCBB. Additionally, the SCBB is proposed for listing as federally endangered. The USFWS does not provide a determination key for the monarch butterfly in this region. Since a no effect determination was made, no further consultation with the USFWS is required.

3.3.2 State-Listed Species

Stantec used the IDNR PERMT in March 2026 to access information on state-listed species with potential to occur in the Project area. According to review by the IDNR received via email on March 10, 2026, no state-listed species records or significant natural communities were identified within the Project area. No further consultation with IDNR is required. This correspondence with the IDNR is included in Appendix C.2.

3.4 MIGRATORY BIRDS

The USFWS states that bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) are unlikely to occur within the Project area. Bald and golden eagles are regulated by the Bald and Golden Eagle Protection Act (BGEPA). The Project component is located primarily within maintained open land and Northern existing facility. Stantec completed raptor stick-nest surveys in November 2025, and no eagle or raptor nests were identified within or within the vicinity of the Project area. In addition, no tree clearing will occur for the Project component. Therefore, the Project component is anticipated to have no effect on bald eagles.

The North American Bird Conservation Initiative (NABCI) maintains a list of Bird Conservation Regions (BCRs) (NABCI 2021). A BCR is an ecologically distinct region in North America with similar bird communities, habitats and resource management issues. There are 66 BCRs in North America. The Project area will be in BCR 22 – the Eastern Tallgrass Prairie. The USFWS Birds of Conservation Concern 2021 report (USFWS 2021) identifies 25 Birds of Conservation Concern within BCR 22.

Based on review of the USFWS IPaC Species list (USFWS 2025) for the ESB in Pottawattamie County, no Birds of Conservation Concern are likely to occur within the ESB. The protection of migratory birds is regulated by the Migratory Bird Treaty Act (MBTA). Any activity, intentional or unintentional, that results in take of migratory birds is prohibited unless otherwise permitted by the USFWS. Depending on the timing of construction, the Project component may potentially affect nests, eggs, and/or young birds protected under the MBTA. Therefore, pre-construction nest surveys are recommended if vegetation disturbance will occur within nesting seasons for migratory birds to avoid incidental take of nesting birds protected under the MBTA. The nest survey will determine the

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absence or presence of breeding birds and their nests. Pre-construction nest surveys should be completed according to the following procedures.

- No more than seven days before construction activities commence, pre-construction nest surveys for migratory birds will be completed by a qualified avian biologist. The area surveyed will include the proposed workspaces or areas where potentially suitable habitat has been identified.
- If an occupied (non-eagle) raptor nest is observed during the survey, construction activities will not be permitted within 100-foot buffer of it to avoid incidental take of protected raptor species. Furthermore, construction activities will not be permitted within a 660-foot buffer of any eagle nest site during the breeding season or until the fledglings have left the area. Northern will complete consultation with the USFWS, IDNR if an active raptor nest are observed, as required.
- If a nest, other than a raptor nest is observed during the survey, construction activities will not be permitted within a 15- to 30-foot buffer of the nest depending on the species and vertical offset from the nest.
- Upon completion of the nest surveys, the survey results will be submitted to the USFWS, IDNR, as appropriate. If breeding birds are not present, construction can proceed with no restrictions. If breeding birds or active nests are present, additional consultation will be completed, as required.

Important Bird Areas (IBAs) are discrete sites that provide essential habitat for one or more bird species and include habitat for breeding, wintering, and/or migrating birds (Audubon 2021). The Project area does not cross an IBA. The nearest IBAs to the Project area are the Hitchcock Nature Center IBA and the Fontenelle Forest IBA, approximately 29 miles northwest and southwest, respectively, of the Project area. Therefore, impacts to IBAs are not anticipated, as a result of the Project component.

3.4.1 County, State and Federal Lands

No county, state, or federal lands were identified within the Project area.

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4.0 Summary and Conclusions

Stantec performed a review of federally and state-protected species that may occur within the Project ESB. Based on the review, Stantec identified three federally listed species, the piping plover, monarch butterfly, and Suckley's Cuckoo bumble bee, that could occur within Pottawattamie County, Iowa.

Based on proposed Project component work, the desktop review and onsite habitat assessment conducted during the November 2025 field surveys, the Project component was determined to have no effect on the piping plover, monarch butterfly, and Suckley's cuckoo bumble bee. Additionally, the Project component is anticipated to have no effect on migratory birds and/or bald and golden eagles, or IBAs; and no federally designated critical habitats occur within the Project area.

Review of state-listed species from the IDNR stated that no state-listed species records or significant natural communities were identified within the Project area. Additionally, no federally designated critical habitats or county, state, or federal lands occur within the Project area. No further consultation with USFWS or IDNR is required.

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5.0 Limitations and Warranty

Within the limitations of schedule, budget, and scope of work, Stantec warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species' listing status in effect at the time this evaluation was performed.

The results and conclusions of this report represent the best professional judgment of Stantec scientists. No other warranty, expressed or implied, is made. Please be aware that only the USFWS and/or lead federal agency can determine compliance with the ESA.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – OAKLAND COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

6.0 References

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**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – OAKLAND COMPRESSOR STATION
– RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

Appendix A Figures

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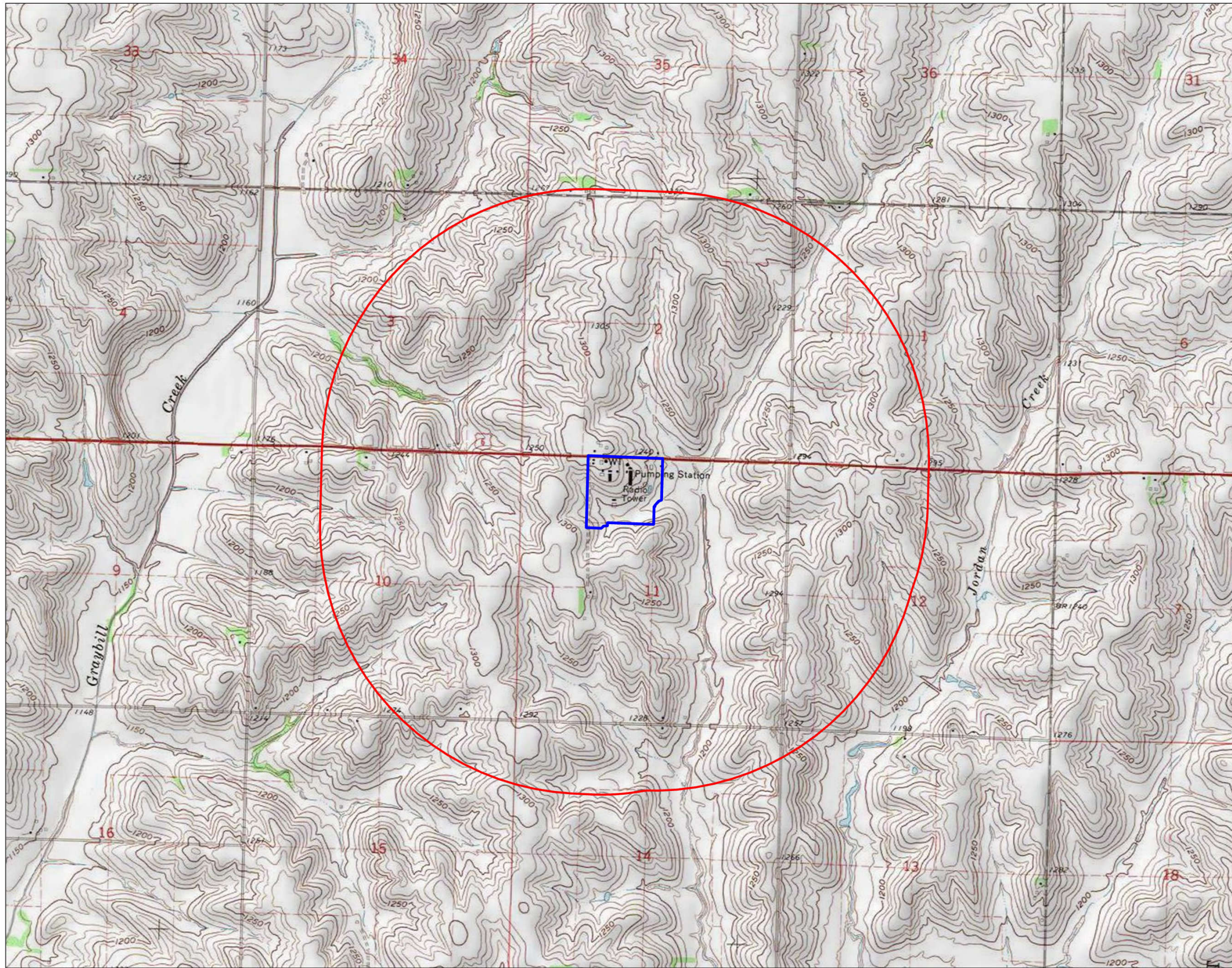
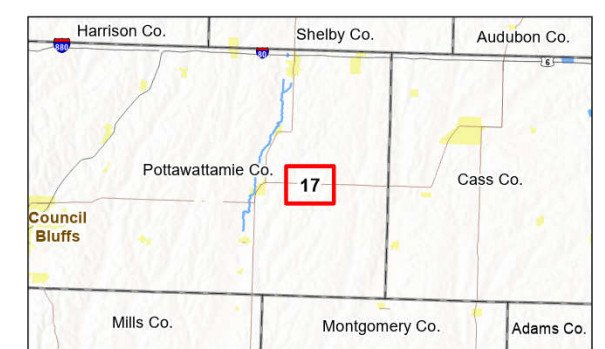


Figure No. **1**
 Title **Project Location & 1-Mile Buffer Oakland Compressor Station**
 Client/Project Northern Natural Gas 172609221
 Central Mainline Corridor Expansion Project
 Project Location Township of Center Pottawattamie County, Iowa
 Prepared by JM on 2026-02-10
 TR by SF on 2026-02-12
 IR by SK on 2026-03-20



Legend
 Environmental Survey Boundary
 1-Mile Buffer



Notes
 1. Coordinate System: NAD 1983 UTM Zone 15N
 2. Data Sources: Stantec, NNG, Esri, USCB, USGS
 3. Background: USGS 7.5' Topographic Quadrangles

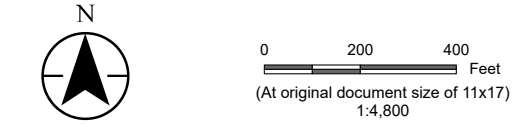


Figure No. **2**
 Title
**Rare, Threatened, & Endangered Species Report
 Oakland Compressor Station**

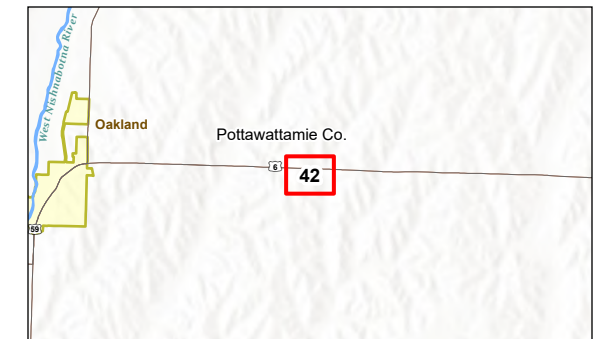
Client/Project
 Northern Natural Gas
 Central Mainline Corridor Expansion Project

Project Location
 Township of Center
 Pottawattamie County, Iowa

Prepared by JM on 2026-02-09
 TR by SF on 2026-02-27
 IR by SK on 2026-03-23



- Legend
- Existing Pipeline
 - Environmental Survey Boundary
 - Temporary Workspace
 - TE Species
 - Culvert
 - Field Delineated Waterway Line
 - Field Delineated Waterway Area
 - Field Delineated Open Water
 - National Hydrography Dataset
 - Perennial Stream
 - Intermittent Stream
 - Canal/Ditch
 - Waterbody



Notes

1. Coordinate System: NAD 1983 UTM Zone 15N
2. Data Sources: Stantec, NNG, Esri, USCB, USGS
3. Background: NAIP 2023

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**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – OAKLAND COMPRESSOR STATION
– RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

Appendix B Photographs



Photo 1. General view of maintained lawn, photo taken facing east.



Photo 2. General view of maintained lawn, photo taken facing north.



Photo 3. General view of maintained lawn and Northern existing facilities, photo taken facing west.



Photo 4. General view of maintained lawn, photo taken facing east.



Photo 5. View of waterway OCS-S01, photo taken facing west.



Photo 6. View of waterway OCS-S01, photo taken facing east.



Photo 7. View of waterway OCS-S02, photo taken facing southwest.



Photo 8. View of open water OCS-OW01, photo taken facing north.

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– RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

Appendix C Endangered Species Lists and Agency Consultation

C.1 USFWS IPAC LIST OF SPECIES

Scientific Name	Common Name	Federal Listing	State Listing	State Rank ¹	Global Rank ²
Birds					
<i>Charadrius melodus</i>	Piping Plover	Threatened	Endangered	S1	G3
Insects					
<i>Danaus plexippus</i>	Monarch Butterfly	Proposed Threatened	None	S5	G4
<i>Bombus suckleyi</i>	Suckley's Cuckoo Bumble Bee	Proposed Endangered	None	N/A	G2

¹ State Ranks: S1=critically imperiled S2=imperiled, S3=vulnerable to extirpation, S4=apparently secure, S5=secure, SX=presumed extirpated

² Global Ranks: G1=critically imperiled, G2=imperiled, G3=very rare and found locally G4=apparently secure, G5=secure.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
Phone: (309) 757-5800 Fax: (309) 757-5807

In Reply Refer To:

02/11/2026 17:17:06 UTC

Project Code: 2026-0048548

Project Name: Central Mainline Corridor - Oakland Compressor Station

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat, if present, within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) **the accuracy of this species list should be verified after 90 days**. This verification can be completed formally or informally. You may verify the list by visiting the ECOSPHERE Information for Planning and Consultation (IPaC) website <https://ipac.ecosphere.fws.gov> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list.

Section 7 Consultation

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the U.S. Fish and Wildlife Service (Service) if they determine their project "may affect" listed species or designated critical habitat. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action may affect endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service to make "no effect" determinations. If you determine that your proposed action will have no effect on threatened or endangered species or their respective designated critical habitat, you do not need to seek concurrence with the Service.

Note: For some species or projects, IPaC will present you with *Determination Keys*. You may be able to use one or

more Determination Keys to conclude consultation on your action.

Technical Assistance for Listed Species

1. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain information on the species life history, species status, current range, and other documents by selecting the species from the thumbnails or list view and visiting the species profile page.

No Effect Determinations for Listed Species

1. If there are *no* species or designated critical habitats on the Endangered Species portion of the species list: conclude "no species and no critical habitat present" and document your finding in your project records. No consultation under ESA section 7(a)(2) is required if the action would result in no effects to listed species or critical habitat. Maintain a copy of this letter and IPaC official species list for your records.
2. If any species or designated critical habitat are listed as potentially present in the **action area** of the proposed project the project proponents are responsible for determining if the proposed action will have "no effect" on any federally listed species or critical habitat. No effect, with respect to species, means that no individuals of a species will be exposed to any consequence of a federal action or that they will not respond to such exposure.
3. If the species habitat is not present within the action area or current data (surveys) for the species in the action area are negative: conclude "no species habitat or species present" and document your finding in your project records. For example, if the project area is located entirely within a "developed area" (an area that is already graveled/paved or supports structures and the only vegetation is limited to frequently mowed grass or conventional landscaping, is located within an existing maintained facility yard, or is in cultivated cropland conclude no species habitat present. Be careful when assessing actions that affect: 1) rights-of-ways that contains natural or semi-natural vegetation despite periodic mowing or other management; structures that have been known to support listed species (example: bridges), and 2) surface water or groundwater. Several species inhabit rights-of-ways, and you should carefully consider effects to surface water or groundwater, which often extend outside of a project's immediate footprint.
4. Adequacy of Information & Surveys - Agencies may base their determinations on the best evidence that is available or can be developed during consultation. Agencies must give the benefit of any doubt to the species when there are any inadequacies in the information. Inadequacies may include uncertainty in any step of the analysis. To provide adequate information on which to base a determination, it may be appropriate to conduct surveys to determine whether listed species or their habitats are present in the action area. Please contact our office for more information or see the survey guidelines that the Service has made available in IPaC.

May Effect Determinations for Listed Species

1. If the species habitat is present within the action area and survey data is unavailable or inconclusive: assume the species is present or plan and implement surveys and interpret results in coordination with our office. If assuming species present or surveys for the species are positive continue with the may affect determination process. May affect, with respect to a species, is the appropriate conclusion when a species might be exposed to a consequence of a federal action and could respond to that exposure. For critical habitat, 'may affect' is the appropriate conclusion if the action area overlaps with mapped areas of critical habitat and an essential physical or biological feature may be exposed to a consequence of a federal action and could change in response to that exposure.
2. Identify stressors or effects to the species and to the essential physical and biological features of critical habitat that overlaps with the action area. Consider all consequences of the action and assess the potential for each life stage of the species that occurs in the action area to be exposed to the stressors. Deconstruct the action into its component parts to be sure that you do not miss any part of the action that could cause effects to the species or physical and biological features of critical habitat. Stressors that affect species' resources may have consequences even if the species is not present when the project is implemented.
3. If no listed or proposed species will be exposed to stressors caused by the action, a 'no effect' determination may be appropriate – be sure to separately assess effects to critical habitat, if any overlaps with the action

area. If you determined that the proposed action or other activities that are caused by the proposed action may affect a species or critical habitat, the next step is to describe the manner in which they will respond or be altered. Specifically, to assess whether the species/critical habitat is "not likely to be adversely affected" or "likely to be adversely affected."

4. Determine how the habitat or the resource will respond to the proposed action (for example, changes in habitat quality, quantity, availability, or distribution), and assess how the species is expected to respond to the effects to its habitat or other resources. Critical habitat analyses focus on how the proposed action will affect the physical and biological features of the critical habitat in the action area. If there will be only beneficial effects or the effects of the action are expected to be insignificant or discountable, conclude "may affect, not likely to adversely affect" and submit your finding and supporting rationale to our office and request concurrence.
5. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, check IPaC for species-specific Section 7 guidance and conservation measures to determine whether there are any measures that may be implemented to avoid or minimize the negative effects. If you modify your proposed action to include conservation measures, assess how inclusion of those measures will likely change the effects of the action. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, contact our office for assistance.
6. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

For additional information on completing Section 7 Consultation including a Glossary of Terms used in the Section 7 Process, information requirements for completing Section 7, and example letters visit the Midwest Region Section 7 Consultations website at: <https://www.fws.gov/office/midwest-region-headquarters/midwest-section-7-technical-assistance>.

You may find more specific information on completing Section 7 on communication towers and transmission lines on the following websites:

- Incidental Take Beneficial Practices: Power Lines - <https://www.fws.gov/story/incidental-take-beneficial-practices-power-lines>
- Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. - <https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation>

Tricolored Bat Update

On September 14, 2022, the Service published a proposal in the Federal Register to list the tricolored bat (*Perimyotis subflavus*) as endangered under the Endangered Species Act (ESA). The Service has up to 12-months from the date the proposal published to make a final determination, either to list the tricolored bat under the Act or to withdraw the proposal. The Service determined the bat faces extinction primarily due to the rangewide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across North America. Because tricolored bat populations have been greatly reduced due to WNS, surviving bat populations are now more vulnerable to other stressors such as human disturbance and habitat loss. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective (typically 30 days after publication of the final rule in the Federal Register), the prohibitions against jeopardizing its continued existence and "take" will apply. Therefore, if your future or existing project has the potential to adversely affect tricolored bats after the potential new listing goes into effect, we recommend that the effects of the project on tricolored bat and their habitat be analyzed to determine whether authorization under ESA section 7 or 10 is necessary. Projects with an existing section 7 biological opinion may require

reinitiation of consultation, and projects with an existing section 10 incidental take permit may require an amendment to provide uninterrupted authorization for covered activities. Contact our office for assistance.

Other Trust Resources and Activities

Bald and Golden Eagles

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act, as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, please contact our office for further coordination. For more information on permits and other eagle information visit our website <https://www.fws.gov/library/collections/bald-and-golden-eagle-management>. We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Illinois-Iowa Ecological Services Field Office

Illinois & Iowa Ecological Services Field Office

1511 47th Ave

Moline, IL 61265-7022

(309) 757-5800

PROJECT SUMMARY

Project Code: 2026-0048548

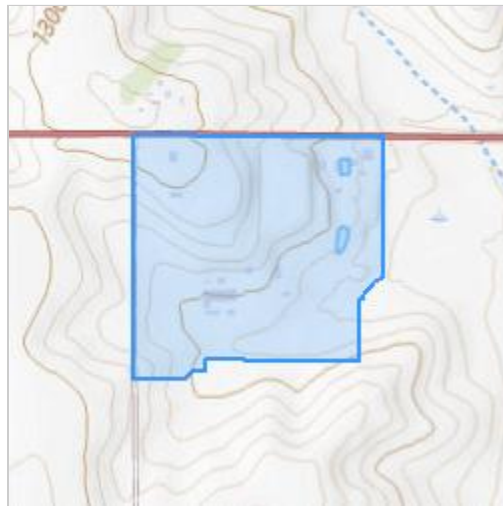
Project Name: Central Mainline Corridor - Oakland Compressor Station

Project Type: Natural Gas Distribution

Project Description: Northern Natural Gas (Northern) is proposing new piping at the Oakland Compressor Station located in Pottawattamie County, Iowa to allow for bi-directional flow on the B and C mainlines as well as a new recycle valve as part of the Central Mainline Corridor Project.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.316920999999994,-95.30088815281611,14z>



Counties: Pottawattamie County, Iowa

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's Cuckoo Bumble Bee <i>Bombus suckleyi</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10885	Proposed Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act (MBTA). Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The data in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the Supplemental Information on Migratory Birds and Eagles document to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

THERE ARE NO FWS MIGRATORY BIRDS OF CONCERN WITHIN THE VICINITY OF YOUR PROJECT AREA.

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency: Stantec
Name: Mia Bauer
Address: One Carlson Parkway
Address Line 2: Suite 100
City: Plymouth
State: MN
Zip: 55447
Email: mia.bauer@stantec.com
Phone: 6124273725

**CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – OAKLAND COMPRESSOR STATION
– RARE, THREATENED, AND ENDANGERED SPECIES REPORT**

C.2 IDNR CORRESPONDENCE

From: casey.laskowski@dnr.iowa.gov
To: [Steele, Mason](#)
Subject: 2026-0340 Environmental Review Request - Central Mainline Corridor Expansion Project – Oakland Compressor Station
Date: Tuesday, March 10, 2026 1:00:44 PM

You don't often get email from casey.laskowski@dnr.iowa.gov. [Learn why this is important](#)

41.3162/-95.3010; Pottawattamie County
Sec. 2/T75N/R39W

Thank you for inviting the Department to comment on the impact of this project. The Department has searched for records of rare species and significant natural communities in the project area and found no site-specific records that would be impacted by this project. However, these records and data are not the result of thorough field surveys. If listed species or rare communities are found during the planning or construction phases, additional studies and/or mitigation may be required.

This email is a record of review for protected species, rare natural communities, state lands and waters in the project area, including review by personnel representing state parks, preserves, recreation areas, fisheries and wildlife but does not include comment from the Environmental Services Division of this Department. This email does not constitute a permit. Other permits may be required from the Department or other state or federal agencies before work begins on this project.

If you have questions about this letter or require further information, please contact me at (515) 330-6432.

Sincerely,

Casey Laskowski | Environmental Specialist
Iowa Department of Natural Resources
P 515-330-6432 | F 515-725-8202 | 6200 Park Avenue Suite 200, Des Moines, IA 50321
www.iowadnr.gov



Caution: This email originated from outside of Stantec. Please take extra precaution.

Attention: Ce courriel provient de l'extérieur de Stantec. Veuillez prendre des précautions supplémentaires.

Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

CENTRAL MAINLINE CORRIDOR EXPANSION PROJECT – OAKLAND COMPRESSOR STATION – RARE, THREATENED, AND ENDANGERED SPECIES REPORT

Appendix D Federal and State-Listed Species Potentially Occurring in the ESB in Pottawattamie County

Common Name (Scientific Name)	Federal Status	State Status	County, State	Range or Habitat Requirements	Potential for Occurrence in Project Area
Piping Plover (<i>Charadrius melodus</i>)	Endangered	Endangered	Pottawattamie County, Iowa	Habitat includes sand spits, small islands, tidal flats, shoals and sandbars with inlets along the coast. In the Northern Great Plains, unvegetated shorelines of alkaline lakes, reservoirs, or river sandbars are used for nesting.	Unlikely to occur Project area is within the species known range, however no suitable habitat was found within the Project area. Therefore, this species is unlikely to occur within the Project area. No effect
Monarch Butterfly (<i>Danaus plexippus</i>)	Proposed Threatened	None	Pottawattamie County, Iowa	Habitat includes open vegetated areas where milkweed and other diverse flowering plants are present. Milkweed species are required for larval development.	Unlikely to occur Project area is within the species known range but does not contain suitable habitat (open vegetated areas) and no individuals were identified during the 2025 field surveys. Northern joined the USFWS Nationwide Monarch Butterfly Candidate Conservation Agreement on Energy and Transportation Lands in 2020. As part of this Project component, Northern will utilize pollinator friendly plant seed mixtures within Northern owned properties, where feasible. No effect
Suckley's Cuckoo Bumble Bee (<i>Bombus suckleyi</i>)	Proposed Endangered	None	Pottawattamie County, Iowa	Prairies, grasslands, meadows, woodlands, urban areas, and agricultural areas where host bumble bee nests are present.	Does not occur The species does not occur within the Project area. Extant populations of this species are not known in Iowa at present. The last confirmed sighting of this species in the contiguous United States was in Oregon in 2016. No effect

Palmyra Compressor Station

Habitat Assessment Report (Filed as CUI//PRIV - Do Not Release)

Included in the P&C volume

**Central Mainline Corridor Expansion Project -
Desktop Review for
Western Prairie Fringed Orchid Habitat**



Stantec Consulting Services Inc.
One Carlson Parkway North, Suite 100
Plymouth, MN 55447

April 9, 2026

Mr. Terry Plucker
Northern Natural Gas
1111 South 103rd Street
Omaha, Nebraska 68124

RE: Northern Natural Gas – Central Mainline Corridor Expansion Project – Desktop Review for Western Prairie Fringed Orchid Habitat

Dear Mr. Plucker:

Stantec Consulting Services Inc. (Stantec) understands that Northern Natural Gas (Northern) owns and operates a natural gas transmission pipeline system, including pipeline and associated aboveground facilities in Iowa and Nebraska. Northern is filing an application with the Federal Energy Regulatory Commission (FERC) pursuant to Section 7 of the Natural Gas Act. The Project involves the construction of three new pipeline extensions consisting of approximately 26.15 miles of 20-inch- and 30-inch-diameter pipelines and associated above-ground appurtenances in Iowa and Nebraska.

Stantec prepared this letter to document the results of a desktop habitat review for the western prairie fringed orchid (WPFO) conducted for the proposed Central Mainline Corridor Expansion Project. This review evaluated the potential presence of suitable WPFO habitat within Project components where the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Official Species List identified the species as having the potential to occur

- Omaha 3rd branch line loop – Cass and Sarpy counties, Nebraska
- NPPD Princeton Road power station branch line – Gage and Lancaster counties, Nebraska
- Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve 5 Setting – Lancaster County, Nebraska
- Palmyra compressor station – Otoe County, Nebraska

The work was conducted at the request of Northern Natural Gas (Northern) to facilitate compliance with the Endangered Species Act (ESA) of 1973 (16 United States Code [USC] A-1535-1543, P.L. 93-205), as amended.

Methods

Stantec conducted a desktop review for potential for suitable WPFO habitat within the Northern-defined Environmental Survey Boundary (ESB) of the above listed Project components. Stantec utilized publicly available online imagery, along with field data collected, including onsite

photographs that were taken during the 2025 field surveys, including onsite photographs, to evaluate habitats crossed by the Project that may be suitable for WPFO.

Results

Results of the desktop review completed for the Project to identify potentially suitable habitat for WPFO are summarized in Table 1 below.

Table 1. Western Prairie Fringed Orchid Desktop Review Summary Results

MP From–To	Land Use / Habitat Type	Key Vegetation / Features	WPFO Potential
Omaha 3rd branch line loop			
MP0.0–0.1	Row crop	Corn/soybean field	Unlikely
MP0.1	Graded drainage swale	Reed canary grass; mowed	Highly unlikely
MP0.11–0.89	Row crop	Active cropland	Unlikely
MP0.89–0.91	Valve facility	Gravel pad	None
MP0.91–3.1	Row crop with swales	Reed canary grass swales at MP1.15, MP1.81	Unlikely
MP3.1	Disturbed drainageway	Smooth brome, ragweed, foxtail, shrubs	Highly unlikely
MP3.1–4.37	Row crop with drainage swales	Nonnative vegetation; mowed	Unlikely
MP4.38–4.97	Row crop	Cultivated cropland	Unlikely
MP4.97	Drainage swale	Smooth brome, smartweed	Highly unlikely
MP4.97–6.4	Row crop	Swale at MP5.08; disturbed fenceline	Unlikely
MP6.44–6.58	Row crop	Cropland	Unlikely
MP6.58–6.62	Overgrazed pasture	Short Poa spp., invasive thistle	Unlikely
MP6.62–6.91	Row crop	Cultivated cropland	Unlikely
MP6.91–7.4	Tallgrass prairie	Big bluestem, Indian grass, forbs	Potential Habitat
MP7.4–7.69	Upland woodland	Closed canopy, steep swales	Highly unlikely
MP8.1–8.57	Open sand / disturbed	Mining area, >50% bare ground	Highly unlikely
NPPD Princeton Road power station branch line			
South of Hwy 41	Row crop with swales	Smooth brome dominant	Highly unlikely
MP0.0–3.3	Row crop	Smooth brome swales	Highly unlikely
MP0.67	Upland swale	Smooth brome	Highly unlikely
Near S 96th Rd	Upland vegetation	Smooth brome	Highly unlikely
MP0.86	Field edge	Smooth brome strip	Highly unlikely
MP0.97	Fence row	Osage orange, cedar, cottonwood	Highly unlikely
MP1.15	Upland swale	Smooth brome, milkweed	Highly unlikely
MP1.32	Fence-line swale	Smooth brome, partial canopy	Unlikely
MP1.61–1.89	Mowed grassland	Cool-season grasses	Highly unlikely
MP2.08	Hayed swale	Nonnative grasses	Highly unlikely
MP2.72–2.74	Grassed waterway	Smooth brome, scattered trees	Unlikely
MP2.87–3.0	HDD – Shaw Creek	Disturbed banks; reed canary grass	Unlikely
MP3.3–4.3	Hayed upland field	Smooth brome, foxtail	Unlikely
MP4.94	Wetland PRB-W14	Reed canary grass dominant	Unlikely
MP11.27	Middle Branch Big Nemaha River	Narrow channel, brome/ragweed	Unlikely



MP From–To	Land Use / Habitat Type	Key Vegetation / Features	WPFO Potential
MP12.65–12.81	Permanent grassland	Smooth brome, bluestem	Unlikely
MP12.81–12.92	Grazed grassland/swale	Smooth brome, pasture indicators	Unlikely
MP13.07–13.25	Upland grassland	Smooth brome, scattered woody	Highly unlikely
MP14.53–14.55	Abandoned rail bed	Dense brush, brome	Highly unlikely
MP14.6–West	Row crop	Cultivated cropland	Unlikely
Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve 5 Setting			
Valve station	Smooth brome dominant, mowed; ditched waterway	N/A	Highly unlikely
Palmyra compressor station			
Compressor station	Graded, fenced, turf grass	N/A	None

Conclusion

Based on the desktop review, potentially suitable WPFO habitat was identified between MP 6.91 and MP 7.40 along the Omaha 3rd branch line loop. This segment consists of upland tallgrass prairie that may represent remnant prairie based on species composition and proximity to the Platte River; therefore, Stantec recommends plant surveys or habitat verification in the summer of 2026, and results of the assessment be submitted to USFWS and Nebraska Game and Parks Commission for concurrence of a determination. No other Project components were identified as containing potentially suitable WPFO habitat.

We trust this information meets your needs. Please feel free to contact me if you have questions or need additional information.

Sincerely,



Paul Bockenstedt
 Senior Ecologist
 Direct: 651-372-4134
 Email: Paul.Bockenstedt@stantec.com



Nathan Noland
 Associate, Environmental Scientist
 Direct: 763-479-4228
 Email: Nathan.Noland@stantec.com



Appendix 3D

Native Seed Mix for Pollinators

Pheasants Forever
 15364 New Salem Bluff Rd
 Petersburg, IL 62675
 Ph: (217) 341-7171

Lot No.: 20S L ROW-3

Total Acres: 3.5
 Total Bulk #: 131.57 lbs
 Total PLS #: 121.625 lbs
 PLS: 92.44 %
 Ttl Germ: 97.06 %
 Bulk #/acre: 37.591 lbs
 PLS #/acre: 34.75 lbs

Purity:	95.24%
Inert:	4.73%
Other Crop:	0.01%
Weed:	0.01%

Mix: **Native Grass & Wildflower Mix**

PLS #/ Acre	Mix %	PLS lb	Bulk lb	Lot Number	Common Name and Variety	Origin	Test Date	Purity	Germ	Hard/ Dorm.	TZ	Total Viable
1.000	3.64%	3.500	4.786	BB-SS19	Big Bluestem.VNS	NE	03/26/20	73.87%	97%	2%	0%	99%
1.500	6.91%	5.250	9.094	19-0219	Little Bluestem.VNS	IA	02/12/20	58.31%	32%	67%	0%	99%
1.000	2.96%	3.500	3.891	20-0157	Indiangrass.VNS	IA	11/16/20	90.87%	0%	0%	99%	99%
6.250	17.83%	21.875	23.463	L76-20-28G	Annual Ryegrass.Gulf	OR	08/05/20	99.18%	94%	0%	0%	94%
1.500	4.19%	5.250	5.516	19-0454	Side-oats Grama.VNS	IA	07/20/20	99.14%	96%	0%	0%	96%
0.500	1.65%	1.750	2.165	G4565	Canada Wildrye.Mandan	MN	09/14/20	93.99%	0%	0%	86%	86%
0.500	1.48%	1.750	1.951	19-0111	Virginia Wildrye.VNS	IA	08/12/20	92.46%	78%	19%	0%	97%
22.500	61.34%	78.750	80.703	19-0392	Oats.Jerry	IA	05/11/20	99.57%	98%	0%	0%	98%

Noxious Weeds/lb:

NO WARRANTY IS EXPRESSED OR IMPLIED. THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Seed labels show independent lab testing results. Weed seed is naturally occurring and the absence of weed seed is not represented or guaranteed. Liability is limited to the purchase price of the seed only. Seed not accepted under these terms must be returned within 10 days. Thereafter a restocking fee of 25% will be charged on all returned seed. Custom seed mixes cannot be returned.

Pheasants Forever
 15364 New Salem Bluff Rd
 Petersburg, IL 62675
 Ph: (217) 341-7171

Lot No.: 20S S ROW-3

Total Acres: 3.5
 Total Bulk #: 14.698 lbs
 Total PLS #: 11.267 lbs
 PLS: 76.66 %
 Ttl Germ: 77.70 %
 Bulk #/acre: 4.199 lbs
 PLS #/acre: 3.219 lbs

Purity:	98.65%
Inert:	1.31%
Other Crop:	0.01%
Weed:	0.02%

Mix: **Native Grass & Wildflower Mix**

PLS #/Acre	Mix %	PLS lb	Bulk lb	Lot Number	Common Name and Variety	Origin	Test Date	Purity	Germ	Hard/Dorm.	TZ	Total Viable
0.063	1.57%	0.221	0.231	20-0085	Golden Alexander.VNS	IA	10/19/20	99.62%	0%	96%	0%	96%
0.013	0.35%	0.046	0.052	18-0307	Smooth Blue Aster.VNS	IA	01/09/20	94.86%	24%	68%	0%	92%
0.013	0.44%	0.046	0.064	20-0108	Foxglove Beardtongue.VNS	IA	11/12/20	75.22%	14%	80%	0%	94%
0.063	1.71%	0.221	0.251	17-0151	Wild Bergamot.VNS	IA	02/07/20	99.83%	79%	9%	0%	88%
0.125	3.83%	0.438	0.563	0080-96	Blanketflower.VNS	IND	10/19/20	98.38%	79%	0%	0%	79%
0.500	12.19%	1.750	1.791	M5918342A	Crimson Clover.Dixie	OR	10/26/20	99.69%	98%	0%	0%	98%
0.031	0.79%	0.109	0.116	18-0211	Grayheaded Coneflower.VNS	IA	08/26/20	99.91%	94%	0%	0%	94%
0.250	6.16%	0.875	0.906	QF150119	Purple Coneflower.VNS	ID	04/21/20	98.58%	88%	10%	0%	98%
0.250	6.63%	0.875	0.974	COLA5PAN19	Lance-leaved Coreopsis.VNS	MO	08/20/20	98.70%	14%	77%	0%	91%
0.125	3.27%	0.438	0.481	VA0111178	Plains Coreopsis.VNS	OR	04/28/20	97.79%	89%	4%	0%	93%
0.006	0.19%	0.021	0.028	20-0117	Culvers Root.VNS	IA	11/20/20	77.96%	9%	86%	0%	95%
0.016	0.44%	0.056	0.065	19-0183	Stiff Goldenrod.VNS	IA	01/31/20	99.52%	29%	58%	0%	87%
0.063	1.61%	0.221	0.237	MI1030	Common Milkweed.VNS	MI	09/30/20	94.91%	98%	0%	0%	98%
0.006	0.19%	0.021	0.027	19-0332	Virginia Mountain Mint.VNS	IA	03/31/20	90.71%	61%	24%	0%	85%
0.500	29.05%	1.750	4.270	17-0169	Partridge Pea.VNS	IA	08/26/20	99.96%	21%	20%	0%	41%
0.250	6.02%	0.875	0.884	19-0395	Purple Prairie Clover.VNS	IA	05/19/20	99.96%	95%	4%	0%	99%
0.125	4.10%	0.438	0.602	19-0076	White Prairie Clover.VNS	IA	08/12/20	95.62%	4%	72%	0%	76%
0.250	6.37%	0.875	0.936	19-0051	Black-eyed Susan.VNS	IA	09/15/20	94.42%	81%	18%	0%	99%
0.063	1.65%	0.221	0.243	19-0185	Blue Vervain.VNS	IA	09/22/20	99.74%	0%	0%	91%	91%
0.063	1.59%	0.221	0.234	HV19	Hoary Vervain.VNS	ND	08/20/20	99.34%	4%	91%	0%	95%
0.125	3.23%	0.438	0.474	20-0048	Fox Sedge.VNS	IA	08/15/20	95.10%	86%	11%	0%	97%
0.313	8.47%	1.096	1.245	19-0316	Switchgrass.VNS	IA	11/11/20	99.95%	57%	31%	0%	88%
0.006	0.15%	0.021	0.023	19-0199	Woolgrass.VNS	IA	11/20/20	99.75%	3%	90%	0%	93%

Noxious Weeds/lb: 15 Kochia, 5 Pigweed (DNA tested)

NO WARRANTY IS EXPRESSED OR IMPLIED. THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Seed labels show independent lab testing results. Weed seed is naturally occurring and the absence of weed seed is not represented or guaranteed. Liability is limited to the purchase price of the seed only. Seed not accepted under these terms must be returned within 10 days. Thereafter a restocking fee of 25% will be charged on all returned seed. Custom seed mixes cannot be returned.

Appendix 3E Tables

Table 3.2-1

Observed Raptor Nest Locations near the Project

(Filed as CUI//PRIV - Do Not Release)

Included in the P&C Volume

Table 3.4-1
Federally and State-listed Species Potentially Occurring in the Vicinity of the
Project

Table 3.4-1 Federally and State-listed Species Potentially Occurring in the Vicinity of the Project

Common Name	Scientific Name	Federal Status	State Status	County	Project Component	Habitat Description	Suitable Habitat Present
Reptiles/Amphibians							
Western massasauga	<i>Sistrurus tergeminus</i>	None	Threatened	Gage	Beatrice Compressor Station	Grassland habitats, such as tallgrass prairie and grassy fields adjacent to moist areas, such as marshland, wet prairies, and flood plains. This species relies exclusively on crayfish burrows for hibernation.	<p style="text-align: center;"><i>Unlikely to occur</i></p> <p>The Project component is within species known range, but no suitable habitat was identified within the Project area. The Project area consists of an active compressor station with mowed grasses and an emergent wetland. The NGPC review completed on February 25, 2026 concluded that impacts on this species are not anticipated.</p> <p style="text-align: center;"><i>No impact</i></p>
Mammals							
Northern long-eared bat	<i>Myotis septentrionalis</i>	Endangered	Endangered	Gage	Beatrice Compressor Station	<p>Summer roosting habitat: Contiguous forested areas, trees (live or dead) that retain their bark with cavities and crevices.</p> <p>Overwinter hibernacula: large caves and mines with large passages and entrances.</p>	<p style="text-align: center;"><i>Unlikely to occur</i></p> <p>The Project component is within species known range, but no suitable habitat was identified within the Project area and no tree clearing will occur. A technical assistance letter was obtained from the USFWS through the determination key results dated March 5, 2026.</p> <p style="text-align: center;"><i>No effect</i></p>
				Cass and Sarpy	Omaha 3rd branch line loop		<p style="text-align: center;"><i>May occur</i></p> <p>The Project component is within species known range and suitable habitat was identified within the Project area. Northern plans to perform tree clearing outside of the pup season (May 15-July 31) in late August/early September to minimize impact on the species. A technical assistance letter was obtained from the USFWS through the determination key results dated March 5, 2026 resulting in May Effect determination.</p> <p style="text-align: center;"><i>Northern will consult with the USFWS regarding tree clearing timing and proposed conservation measures to obtain a determination of not likely to adversely affect</i></p>
				Gage and Lancaster	Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve Setting 5		<p style="text-align: center;"><i>Unlikely to occur</i></p> <p>The Project component is outside the species known range per USFWS, but is listed within the species range per NGPC CERT. The Project area consists of an active Northern facility, and no suitable habitat was identified for this species within the Project area.</p> <p style="text-align: center;"><i>No impact</i></p>

Common Name	Scientific Name	Federal Status	State Status	County	Project Component	Habitat Description	Suitable Habitat Present
				Otoe	Palmyra Compressor Station		<p><i>Unlikely to occur</i></p> <p>The Project component is outside the species known range per USFWS, but is listed within the species range per NGPC CERT. The Project is located fully within an active compressor station where no suitable habitat was identified.</p> <p><i>No impact</i></p>
				Gage and Lancaster	NPPD Princeton Road power station branch line		<p><i>Unlikely to occur</i></p> <p>The Project component is outside the species known range per USFWS, but is listed within the species range per NGPC CERT. Suitable habitat was identified within the Project area. Tree clearing on the Project is proposed to occur during the fall/winter 2027, outside of the summer occupancy season of this species (April 1-September 30), to minimize impacts. Northern will submit a follow-up review form to the NGPC to confirm this determination.</p> <p><i>No impact</i></p>
Indiana bat	<i>Myotis sodalis</i>	Endangered	Endangered	Dallas and Polk	Des Moines C-line branch line and Des Moines C-line South Loop Uprate	<p>Summer roosting habitat: Semi-open to closed forested habitat with open understory, forested edges, and riparian areas that contain trees with exfoliating bark.</p> <p>Overwinter hibernacula: large caves and mines with large passages and entrances.</p>	<p><i>Unlikely to occur</i></p> <p>The Project component is within species known range, but very limited habitat is present within the Project area consisting of woodland wind breaks between agricultural fields. No tree clearing is proposed for the Project.</p> <p><i>No effect</i></p>
				Guthrie	Guthrie Center Compressor Station		<p><i>Unlikely to occur</i></p> <p>The Project component is within species known range, but no suitable habitat is present within the Project area which consists of an active compressor station. No tree clearing is proposed for the Project.</p> <p><i>No effect</i></p>
				Boone	Ogden Compressor Station		<p><i>Unlikely to occur</i></p> <p>The Project component is within species known range, but no suitable habitat is present within the Project area which consists of an active compressor station. No tree clearing is proposed for the Project.</p> <p><i>No effect</i></p>

Common Name	Scientific Name	Federal Status	State Status	County	Project Component	Habitat Description	Suitable Habitat Present
Tricolored bat	<i>Perimyotis subflavus</i>	Proposed endangered	None	Cass and Sarpy	Omaha 3rd branch line loop	Summer roosting habitat: live and dead deciduous hardwood tree leaf clusters, pine needle clusters, barns, bridges, roofs, and other concrete structures. Overwinter hibernacula: caves, mines, culverts, tree cavities, and abandoned water wells.	<p>May occur</p> <p>The Project component is within species known range and suitable habitat was identified within the Project area. Northern plans to perform tree clearing outside of the pup season (May 15-July 31) in late August/early September to minimize impact on the species. A technical assistance letter was obtained from the USFWS through the determination key results dated March 5, 2026.</p> <p>Northern will consult with the USFWS regarding tree clearing timing and will implement the Minimum Conservation Measures to obtain a determination of not likely to adversely affect</p>
Birds							
Piping plover	<i>Charadrius melodus</i>	Threatened	Endangered	Pottawattamie	Oakland Compressor Station	Habitat includes sand spits, small islands, tidal flats, shoals and sandbars with inlets along the coast In the Northern Great Plains, unvegetated shorelines of alkaline lakes, reservoirs, or river sandbars are used for nesting.	<p>Unlikely to occur</p> <p>The Project component is within the species known range, however no suitable habitat was found within the Project area. Therefore, this species is unlikely to occur within the Project area.</p> <p>No effect</p>
			Threatened	Gage and Lancaster	Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve Setting 5		
				Gage and Lancaster	NPPD Princeton Road power station branch line		
				Cass and Sarpy	Omaha 3rd branch line loop		
						<p>May occur</p> <p>The Project component is within the species known range and suitable habitat was identified within the Project area. The Project area crosses the Platte River where shoreline habitat is present. However, Northern will utilize HDD to cross the river, and in-water work and no dredging will occur within this resource. Northern will also utilize appropriate BMPs within the Plan and Procedures to ensure soil erosion and runoff are minimized to the maximum extent possible to prevent siltation of waters. Northern also will conduct preconstruction surveys for piping plover nests within 0.25 mile of the Project area at the Platte River crossing. If an active nest is identified, work will cease and Northern will consult with the USFWS and the NGPC, and no work will resume until young have fledged. Therefore, the Project may affect, but is not likely to adversely affect this species. Northern will consult with the USFWS to approve appropriate survey methods and confirm Northern's determination on this species.</p> <p>May affect, but is not likely to adversely affect</p>	
Interior least tern	<i>Sternula antillarum athalassos</i>	None	Endangered	Cass and Sarpy	Omaha 3rd branch line loop	Sparsely vegetated sandbars on rivers for nesting and foraging.	<p>May occur</p> <p>The Project component is within the species known range and suitable habitat was identified within the Project area. The Project area crosses the Platte River where sandbars are present. However, Northern will utilize HDD to cross the river, and no dredging will occur within this resource. Northern will also utilize appropriate BMPs within the Plan and Procedures to ensure soil erosion and runoff are minimized to the maximum extent possible to prevent siltation of waters. Northern will submit a follow-up review form to</p>

Common Name	Scientific Name	Federal Status	State Status	County	Project Component	Habitat Description	Suitable Habitat Present
							the Nebraska Game and Parks Commission to confirm its determination for this species. <i>No impact</i>
Plants							
Western prairie fringed orchid	<i>Platanthera praeclara</i>	Threatened	Threatened	Gage and Lancaster	Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve Setting 5	Moist tallgrass prairies and sedge meadows with moist calcareous till or sandy soils	<i>Unlikely to occur</i> The Project component is within the species known range, however no suitable habitat was found within the Project area. Therefore, this species is unlikely to occur within the Project area. <i>No effect</i>
				Otoe	Palmyra Compressor Station		
				Cass and Sarpy	Omaha 3rd branch line loop		<i>May occur</i> The Project component is within the species known range and potentially suitable habitat was identified within the Project area. While the Project area is primarily disturbed, a few prairie communities are present within the Project area. The effect determination for this species has not been completed. A desktop review has been completed to determine whether suitable habitat for this species is present. Potentially suitable habitat was identified between MP 6.91 and 7.40 of the Omaha 3rd branch line loop. Summer field surveys will be conducted to verify habitat assessment and/or perform species-specific surveys. The results will be submitted to the USFWS for concurrence of a determination. No suitable habitat was identified along the NPPD Princeton Road power station branch line. <i>To be determined</i>
				Gage and Lancaster	NPPD Princeton Road power station branch line		
Fish							
Pallid sturgeon	<i>Scaphirhynchus albus</i>	Endangered	Endangered	Cass and Sarpy	Omaha 3rd branch line loop	Large, swift-flowing river systems that have a diversity of depths and velocities formed by braided channels, sand bars, sand flats, and gravel bars.	<i>May occur</i> The Project component is within the species known range and suitable habitat was identified within the Project area. The Project area crosses the Platte River. However, Northern will utilize HDD to cross the river, and no dredging will occur within this resource. Northern will also utilize appropriate BMPs within the Plan and Procedures to ensure soil erosion and runoff are minimized to the maximum extent possible to prevent siltation of waters. <i>May affect, but is not likely to adversely affect</i>
				Gage and Lancaster	NPPD Princeton Road power station branch line		<i>Does not occur</i> The Project component does not contain large rivers suitable for this species. <i>May affect, but is not likely to adversely affect</i>

Common Name	Scientific Name	Federal Status	State Status	County	Project Component	Habitat Description	Suitable Habitat Present
Topeka shiner	<i>Notropis topeka</i>	Endangered	Threatened	Wright	Clarion Compressor Station	Slow-moving streams and oxbow lakes with clean gravel or sand substrates and abundant aquatic vegetation.	<p>Does not occur</p> <p>The Project component does not overlap streams or lakes suitable for this species.</p> <p>No effect</p>
Lake sturgeon	<i>Acipenser fulvescens</i>	None	Threatened	Cass and Sarpy	Omaha 3rd branch line loop	Large lake regions, such as Hudson Bay and the Great Lakes, in addition to river systems such as the Mississippi and St. Lawrence drainages.	<p>May occur</p> <p>The Project component is within the species known range and suitable habitat was identified within the Project area. The Project area crosses the Platte River; however, this species is rarely collected from the Platte River. Additionally, Northern will utilize HDD to cross the river, and no dredging will occur within this resource. Northern will also utilize appropriate BMPs within the Plan and Procedures to ensure soil erosion and runoff are minimized to the maximum extent possible to prevent siltation of waters.</p> <p>No impact</p>
Sturgeon chub	<i>Macrhybopsis gelida</i>	None	Endangered	Cass and Sarpy	Omaha 3rd branch line loop	Fast, free flowing rivers with high turbidity and low visibility.	<p>May occur</p> <p>The Project area component is within the species known range and suitable habitat was identified within the Project area. The Project area crosses the Platte River. However, Northern will utilize HDD to cross the river, and no dredging will occur within this resource. Northern will also utilize appropriate BMPs within the Plan and Procedures to ensure soil erosion and runoff are minimized to the maximum extent possible to prevent siltation of waters.</p> <p>No impact</p>
Invertebrate							
Suckley's cuckoo bumble bee	<i>Bombus suckleyi</i>	Proposed endangered	None	Pottawattamie	Oakland Compressor Station	Prairies, grasslands, meadows, woodlands, urban areas, and agricultural areas where host bumble bee nests are present.	<p>Does not occur</p> <p>The species does not occur within the Project area. Extant populations of this species are not known in Iowa or Nebraska at present. The last confirmed sighting of this species in the contiguous United States was in Oregon in 2016.</p> <p>No effect</p>
				Gage	Beatrice Compressor Station		
				Gage and Lancaster	Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve Setting 5		
				Cass and Sarpy	Omaha 3rd branch line loop		

Common Name	Scientific Name	Federal Status	State Status	County	Project Component	Habitat Description	Suitable Habitat Present
				Gage and Lancaster	NPPD Princeton Road power station branch line		
				Otoe	Palmyra Compressor Station		
Western regal fritillary	<i>Argynnis Idalia occidentalis</i>	Proposed threatened	Special Concern	Dallas and Polk	Des Moines C-line South Loop Uprate	Large, intact grasslands at a landscape scale, with violets for larvae; nectar sources for adults; and warm season, native warm-season bunch grasses for shelter at all life stages. The grasslands need to be large and contiguous, generally more than 3.86 square miles, and be maintained by periodic disturbances. Violet species (<i>Viola</i> sp.) are required as the exclusive source of larval forage	<p style="text-align: center;"><i>Unlikely to occur</i></p> <p>The Project area component is within species known range, but no suitable habitat was identified within the Project area (violets).</p> <p style="text-align: center;"><i>No effect</i></p>
			None	Gage County	Beatrice Compressor Station		
				Gage and Lancaster	Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve Setting 5		
				Cass and Sarpy	Omaha 3rd branch line loop		
				Otoe	Palmyra Compressor Station		
				Gage and Lancaster	NPPD Princeton Road power station branch line		
					<p style="text-align: center;"><i>Unlikely to occur</i></p> <p>The Project area component is within species known range, and one property within the Project area was being maintained to create habitat for butterfly species like the western regal fritillary. However, this site was found to be less than one acre in size, and no violets or individuals of this species were observed during the 2025 field surveys.</p> <p style="text-align: center;"><i>No effect</i></p>		
Monarch butterfly	<i>Danaus plexippus</i>	Proposed threatened	None	Wright	Clarion Compressor Station	Habitat includes open vegetated areas where milkweed and other diverse flowering plants are present. Milkweed species are required for larval development.	<p style="text-align: center;"><i>Unlikely to occur</i></p> <p>The Project area component is within the species known range but does not contain suitable habitat (nectar sources and milkweed) and no individuals were identified during the 2025 field surveys. Northern joined the USFWS Nationwide Monarch Butterfly</p>

Common Name	Scientific Name	Federal Status	State Status	County	Project Component	Habitat Description	Suitable Habitat Present
				Dallas and Polk	Des Moines C-line branch line and Des Moines C-line South Loop Uprate		<p>Candidate Conservation Agreement on Energy and Transportation Lands in 2020. As part of this Project component, Northern will utilize pollinator friendly plant seed mixtures within Northern owned properties, where feasible.</p> <p><i>No effect</i></p>
				Guthrie	Guthrie Center Compressor Station		
				Pottawattamie	Oakland Compressor Station		
				Boone	Ogden Compressor Station		
				Gage	Beatrice Compressor Station		
				Gage and Lancaster	Beatrice to Palmyra D-line and Beatrice to Palmyra E-line Block Valve Setting 5		
				Otoe	Palmyra Compressor Station		
				Cass and Sarpy	Omaha 3rd branch line loop		
				Gage and Lancaster	NPPD Princeton Road power station branch line		
							<p><i>Known to occur</i></p> <p>The Project area component is within the species known range and species occurrences were observed by a reliable observer along with milkweed and/or nectar sources during the 2025 field surveys.</p> <p>Northern joined the USFWS Nationwide Monarch Butterfly Candidate Conservation Agreement on Energy and Transportation Lands in 2020. As part of this Project component, Northern will utilize pollinator friendly plant seed mixtures within Northern owned properties, where feasible.</p> <p><i>No effect</i></p>