

Appendix E
Raptor Nest Survey Report



MINNKOTA POWER COOPERATIVE

Eagle and Raptor Nest Survey

Agassiz Transmission Line and Substation Project

Project No. 190355

Revision 1

January 8, 2026



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Introduction

Minnkota Power Cooperative, Inc. (MPC) is proposing to construct the Agassiz Transmission Line & Substation Project (Agassiz Project), an approximately 1.74-mile double-circuit 345-kilovolt (kV) tap transmission line and associated 345/34.5-kV substation south of Harwood in Cass County, North Dakota (Figure 1, Appendix A). The Project Workspace includes a transmission line, which will consist of 14 structures in a new 150-foot-wide transmission line right-of-way (ROW) that will tie into the existing MPC Maple River–Bison 345-kV transmission line (Maple River–Bison Line), and a proposed Agassiz Substation that will be connected with the newly constructed transmission line. MPC will be submitting a consolidated application for an electric transmission facility Certificate of Corridor Compatibility and Route Permit with the North Dakota Public Service Commission (PSC) under the Energy Conversion and Transmission Facility Siting Act (North Dakota Century Code Sections 49-22) to construct and operate the proposed Agassiz Project.

The PSC application requires an evaluation of the Agassiz Project location for potential impacts on animal species unique or rare to the state, including Species of Greatest Conservation Need (SGCN) identified in the North Dakota State Wildlife Action Plan (SWAP; NDGF 2025), as well as federally protected species under the Endangered Species Act, the Bald and Golden Eagle Protection Act (BGEPA) and Migratory Bird Treaty Act (MBTA). To determine whether eagles and other SGCN or migratory raptors may be present and potentially affected by the Agassiz Project, Burns & McDonnell Engineering Company, Inc. conducted a ground-based eagle and raptor nest survey on behalf of MPC on December 5, 2025.

Methods

A ground-based eagle and raptor nest survey was conducted by a biologist on December 5, 2025, during leaf-off conditions to detect and inventory any eagle or raptor nests that may occur within a 0.5-mile buffer of the Agassiz Project Workspace (Agassiz Project Survey Area; Figure 2; Appendix A). A separate MPC effort to install a fiber optic line crossing of the Sheyenne River along their existing 345-kV Maple River to Bison Transmission Line (MPC Fiber Project) was included in the survey at MPC's request. For the ground survey, a 0.5-mile buffer was applied to this additional area (the MPC Fiber Project Survey Area), which is outside the scope of the PSC application.

The Survey Areas were searched by scanning areas from public roads or approved access within the Agassiz Project Workspace. A spotting scope (20-60x80) and binoculars (12x50) were employed to aid in a comprehensive view of the Survey Areas and detect nests. All observed nests were recorded, and the following data features were collected (Table 1).

Table 1: Field Data Definitions

Data Feature	Description
Nest ID	Unique identification number assigned to each observed nest.
Nest Location	Global Positioning System coordinates (latitude, longitude)
Species	Identification to species level, if practicable.
Nest Status	<p><u>Inactive</u>: No evidence of nest tending and no eggs or nestlings.</p> <p><u>Unknown</u>: Nest presence uncertain as adult is near nest during breeding season, but brooding/incubation is not observed and no observed presence of eggs or nestlings.</p> <p><u>Active</u>: There are eggs, nestlings, and /or adults in incubating/brooding position during survey efforts.</p>
Nest Condition	<p><u>Poor</u>: A nest that appeared dilapidated (e.g., in disrepair, sloughing, or sagging) and will require major repair.</p> <p><u>Fair</u>: A nest with a defined bowl, minor sagging, and may require some repair in order to be used.</p> <p><u>Good</u>: A nest with a well-defined bowl, no sagging, or sloughing, and was considering suitable for nesting.</p>
Nest Size	<p><u>Small</u>: Diameter of less than 12 inches and comprised of small sticks. Characteristics typical of nests used by small raptors or crows, and not suspected to be used by eagles.</p> <p><u>Medium</u>: Diameter between 12 – 24 inches and comprised of both small and medium sticks. Characteristics typical of nests used by medium sized raptors and not suspected to be used by eagles.</p> <p><u>Large</u>: Diameter of greater than 24 inches and comprised of large sticks. Characteristics typical of nests used by eagles and other large raptors.</p>
Nest Substrate	Structure upon which nest is located (tree, platform, cliff, etc.).
Nest Height	Location of nest relative to structure height.

Results

The Survey Areas consist primarily of row-crop agricultural fields. Tree cover within the Agassiz Project Survey Area is limited and occurs mainly as a shelterbelt (i.e., a narrow, linear plantings of trees established along agricultural fields for wind protection and erosion control) composed predominantly of oaks (*Quercus* spp.) and pines (*Pinus* spp.). In the Survey Area for the MPC Fiber Project, tree cover occurs as riparian habitat along the Sheyenne River. Existing transmission lines and roadways are present throughout the Survey Area for both projects.

One medium sized nest (N-1) and one large sized nest (N-2) were identified both in oak trees within the Agassiz Project Survey Area on December 5, 2025 (Figure 3, Appendix A; Photographs 10 and 13, Appendix B). Both nests were observed within the same shelterbelt which parallels the western half of the Agassiz Project Workspace and bisects an agricultural field. N-1 is approximately 120 feet northwest of the proposed temporary access road within the Agassiz Project Workspace; N-2 is approximately 1,200 feet west of the proposed transmission line ROW. N-1 is approximately 0.8 mile south of N-2, and both have clear line of sight to the Agassiz Project Workspace. Both nests were observed in good condition and were inactive during the survey, although an adult bald eagle (*Haliaeetus leucocephalus*) was observed perching on a different oak tree near N-2 (Photograph 12, Appendix B).

The nest conditions of N-1 was found to be in good condition and composed of mostly medium sized stick within the branches of an oak tree approximately 3 meters (9.8 feet) above the ground. Based on these nest conditions, N-1 could support a medium-sized raptor, such as the great horned owl (*Bubo virginianus*), red-tailed hawk (*Buteo jamaicensis*), or Cooper's hawk (*Astur cooperii*), which are all protected by the Migratory Bird Treaty Act. Following the review of raptor species identified by the United States Fish and Wildlife Service (USFWS) Birds of Conservation Concern and the North Dakota Species of Greatest Conservation Concern as potentially occurring within the Survey Area, none exhibit life-history strategies (either raptors are too large for the nest or are ground nesting species) that would indicate N-1 as a suitable nest for use during the breeding season (USFWS 2026; NDGF 2025).

The nest condition of N-2 was found to be in good condition and composed of mostly large and medium sized sticks within the upper branches of a large oak tree approximately 14 meters (45.9 feet) above the ground. Based on these nest conditions, N-2 has potential to serve as a bald eagle nest during the breeding season from approximately January 15 – August 31.

No stick nests suitable of use by eagle or raptor were identified in the Survey Area that crosses the Sheyenne River and is associated with the MPC Fiber Project.

Photographs of the Survey Areas and each identified nest are in Appendix B. Field collected data is captured on the 2025 Nest Survey Data Forms, available in Appendix C.

Conclusions

A ground-based eagle and raptor nest survey was conducted for the Agassiz Project and MPC Fiber Project within their respective Survey Areas on December 5, 2025. Two stick nests were observed in a shelterbelt within the Agassiz Project Survey Area: N-1 was observed near the proposed temporary access road and N-2 was observed west of the transmission line ROW (Figure 3, Appendix A). Both nests were in good condition and inactive during the survey. One adult bald eagle was observed perched near N-2. No raptor nests were observed in the MPC Fiber Project Area.

Nest N-1 is located approximately 120 feet from the Agassiz Project temporary access road. Based on nest size and structure, N-1 may support medium-sized raptors but is not anticipated to be suitable for nesting bald eagles. If the nest is active during construction, MPC may consult with the NDGF to determine whether species-specific minimization measures, such as avoidance buffers, would be required.

Nest N-2 is located approximately 1,200 feet west of the transmission line ROW and has the potential to serve as a bald eagle nest during the bald eagle breeding season (January 15 through August 31). The USFWS guidance recommends avoiding construction activities within 660 feet of an active bald eagle nest during the breeding season (USFWS 2024). Based on this guidance and the distance of N-2 to the Agassiz Project Workspace, no impacts to nesting bald eagles are anticipated during Agassiz Project construction. However, N-2 would have a clear line of sight to the Agassiz Project Workspace throughout the breeding season, when nestlings would be most vulnerable to disturbance. The BGEPA prohibits both incidental and direct take of bald eagles, including their parts, nests, or eggs (16 United States Code §§ 668-668c). Therefore, if N-2 becomes active and signs of disturbance are observed during construction—such as alarm calling, flushing from nest, or prolonged absence from active nest with eggs (i.e., absence exceeding two consecutive 15-minute periods during incubation), MPC may coordinate with the USFWS to identify if minimization measures, such as on-site biological monitoring, increased buffers, or limiting certain construction activities, are warranted.

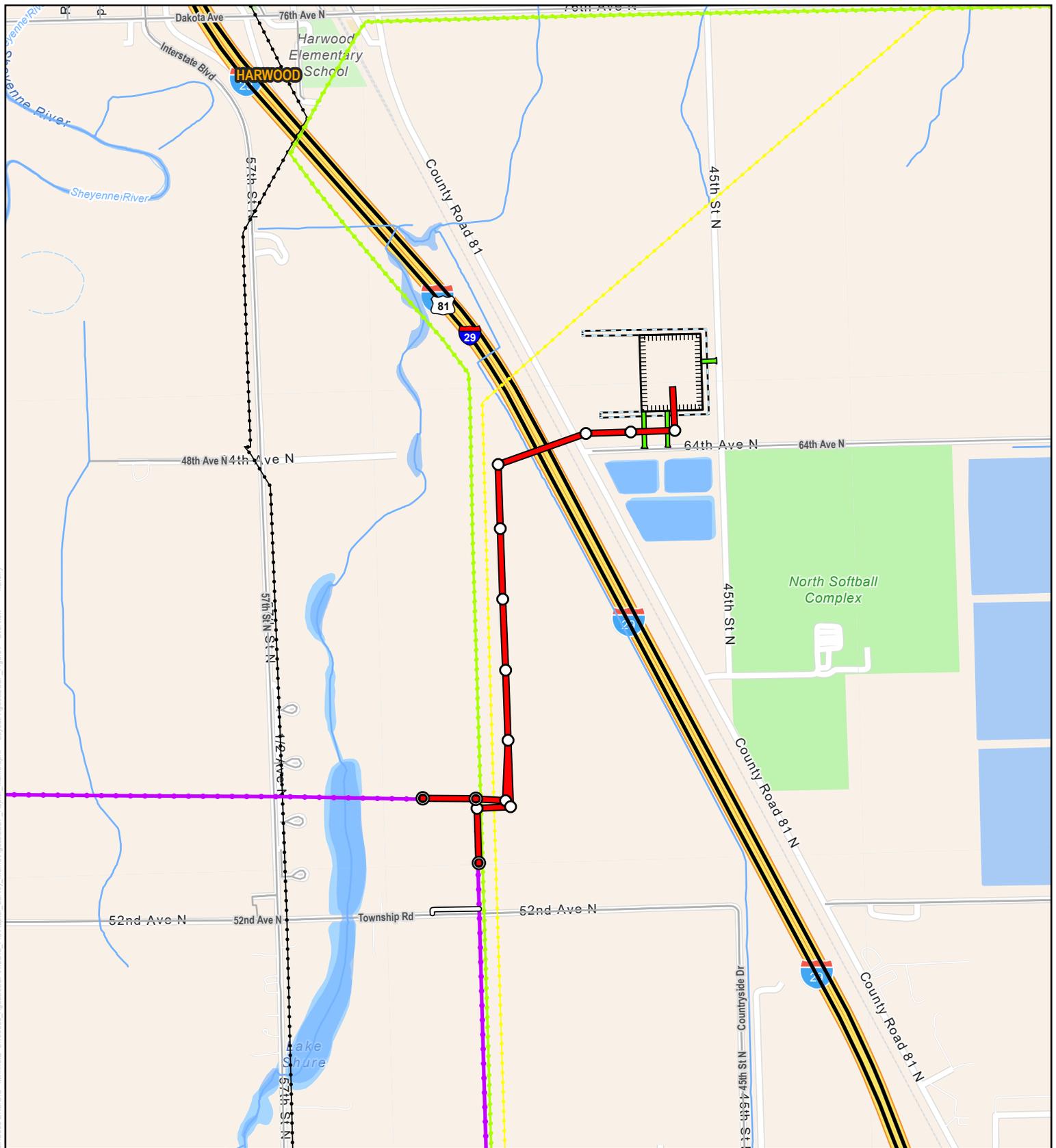
Literature Cited

North Dakota Game and Fish Department (NDGF). 2025b. North Dakota. State Wildlife Action Plan 2025. Bismarck, ND. Available at: <https://gf.nd.gov/gnf/conservation/docs/2025-swap/nd-swap-2025-with-disclaimer.pdf>. Accessed on January 2026.

United States Fish and Wildlife Service (USFWS). 2024. Permits for Incidental Take of Eagles and Eagle Nests. Federal Register 50 CFR Parts 13 and 22. Available at: <https://www.federalregister.gov/documents/2024/02/12/2024-02182/permits-for-incidental-take-of-eagles-and-eagle-nests>. Accessed on December 2025.

USFWS. 2026. Information for Planning and Consultation (IPaC). Washington, D.C. Available at: <https://ipac.ecosphere.fws.gov/>. Accessed on January 2026.

Appendix A – Figures



**BURNS
MCDONNELL**

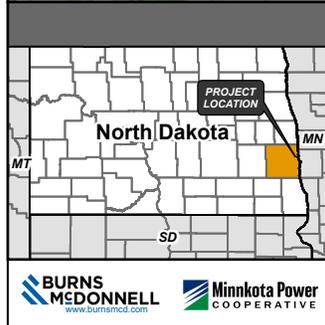
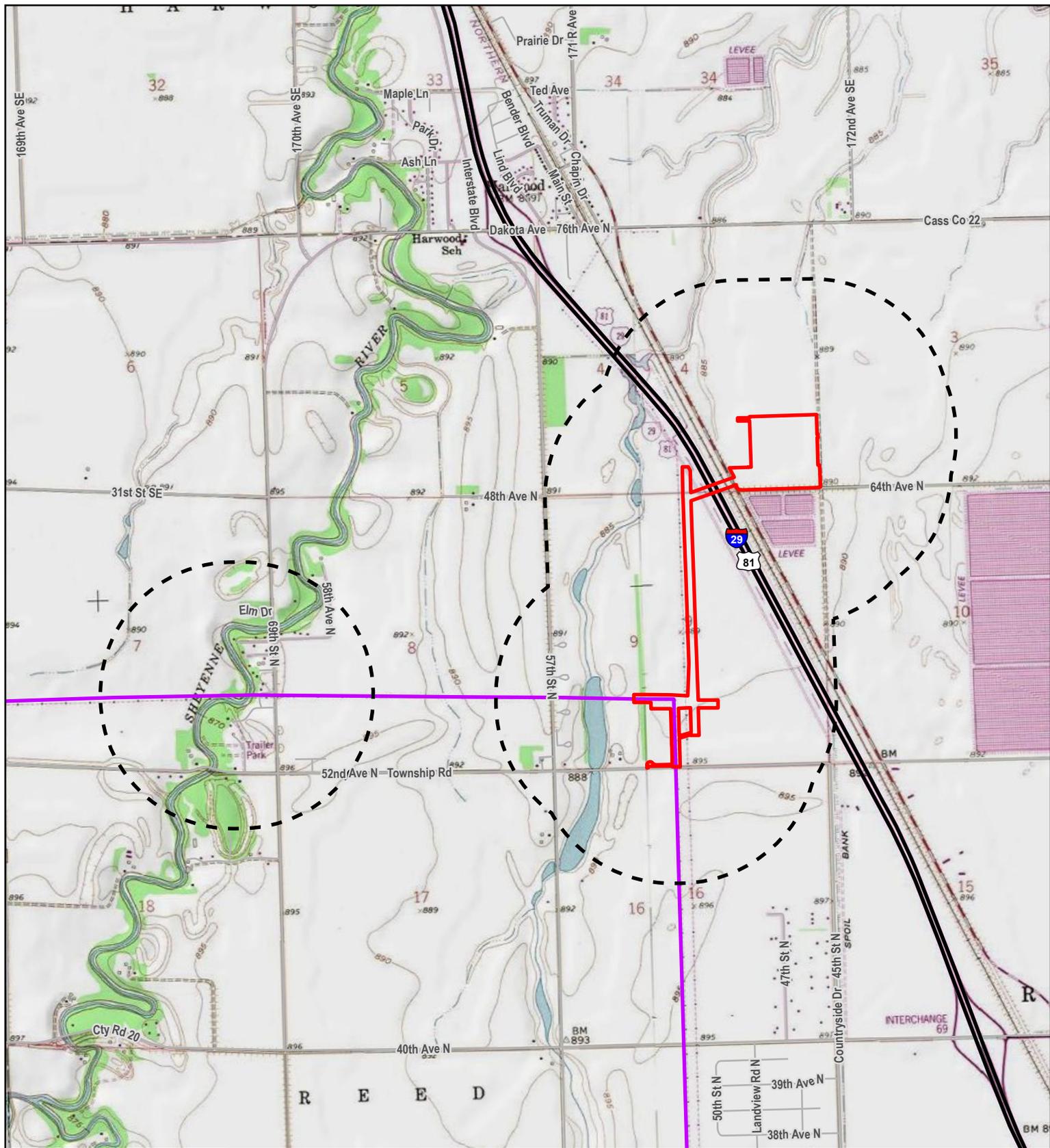
**Minnkota Power
COOPERATIVE**

- Proposed New Structure
- Proposed Structure Replacement
- Proposed Route
- Temporary Off-ROW Access Road
- Proposed Agassiz Substation
- Proposed Access Road
- Stormwater Swale
- Stream/River
- Lake, Pond, or Reservoir
- Other 69-kV Utility Line
- MPC Wiser Tap-Maple River / Maple River-Kragnes 69-kV Distribution Line
- MPC Maple River-Winger 230-kV Transmission Line
- MPC Maple River-Bison 345-kV Transmission Line

Figure 1
Project Overview
Agassiz Transmission Line
& Substation Project
Minnkota Power Cooperative
Cass County, North Dakota

Scale: 1:18,000
Date: 1/7/2026
Data Sources:
Burns & McDonnell,
ESRI, HIFLD

Project: <LINK>C:\Users\jsherry\OneDrive\LINK--Burns & McDonnell\10365-ENVS-GIS - Minnkota\PC1100365_AgassizSSP-ArcGIS_Pro\Report_Survey_Memo\AgassizSSP_Figures - SurveyArea.mxd



- ▭ Proposed Project Workspace
- Survey Area (0.5-mile Buffer)
- MPC Maple River to Bison Transmission Line Fiber Installation

Scale: 1:30,000
 Date: 1/7/2026
 Data Sources:
 Burns & McDonnell,
 ESRI, US Census,

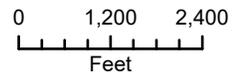
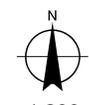
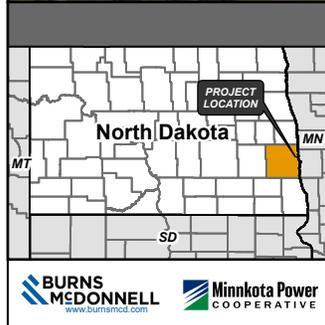
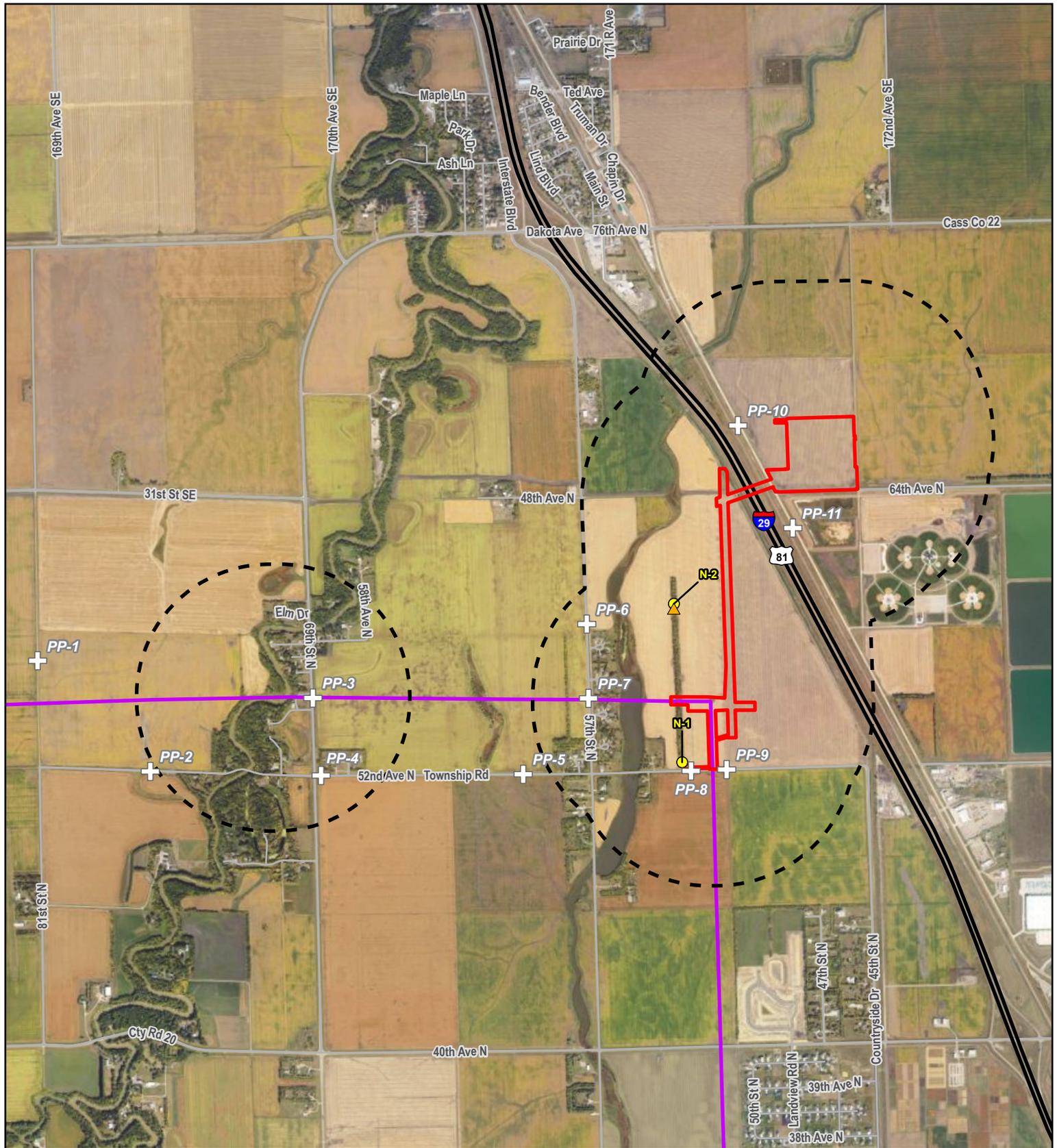


Figure 2
Survey Area
 Agassiz Transmission Line
 & Substation Project
 Minnkota Power Cooperative
 Cass County, North Dakota

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- ▭ Proposed Project Workspace
- Survey Area (0.5-mile Buffer)
- ┃ MPC Maple River to Bison Transmission Line Fiber Installation
- Inactive Stick Nest
- + Photo Point
- ▲ Adult Bald Eagle Observation

Scale: 1:30,000
 Date: 1/7/2026
 Data Sources:
 Burns & McDonnell,
 ESRI, US Census,

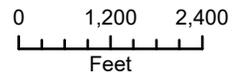


Figure 3
Survey Results
 Agassiz Transmission Line
 & Substation Project
 Minnkota Power Cooperative
 Cass County, North Dakota

Appendix B – Survey Photographs



Photograph 1: View at Photo Point (PP)-1, facing east to the western side of the Sheyenne River.



Photograph 2: View at PP-2, facing east to the Sheyenne River from 52nd Ave N.

Minnkota Power Cooperative
Agassiz Transmission Line and
Substation Project



Photographs- December 5, 2025
Cass County, North Dakota
**Please reference Attachment A for photo
locations on Figure 3*



Photograph 3: View at PP-3, facing west where the right-of-way crosses the Sheyenne River.



Photograph 4: View at PP-4, facing west of the Sheyenne River.

Minnkota Power Cooperative
Agassiz Transmission Line and
Substation Project



Photographs- December 5, 2025
Cass County, North Dakota
**Please reference Attachment A for photo
locations on Figure 3*



Photograph 5: View at PP-5, facing north of a shelterbelt within the transmission line right-of-way.



Photograph 6: View at PP-6, facing east.



Photograph 7: View at PP-7, facing east.



Photograph 8: View at PP-7 facing west (panned in the opposite direction from the previous photo).

Minnkota Power Cooperative
Agassiz Transmission Line and
Substation Project



Photographs- December 5, 2025
Cass County, North Dakota
**Please reference Attachment A for photo
locations on Figure 3*



Photograph 9: View at PP-8 looking northwest from 52nd Ave N to the shelterbelt that parallels the Project Workspace. Refer to the red arrow for the location of Nest (N)-1.



Photograph 10: View of N-1, a medium-sized inactive stick nest, from PP-8. Location of the nest is highlighted by the red circle.



Photograph 11: View at PP-9, looking northwest at the far northern end of the shelterbelt. Refer to the red arrow for the location of N-2.



Photograph 12: View an observed adult bald eagle (*Haliaeetus leucocephalus*) perched on a tree approximately 100 feet south of the observed N-2 potential eagle nest. Location of the adult bald eagle is highlighted by the red circle.



Photograph 13: View of N-2, a large sized inactive stick nest, from PP-9.
Location of the nest is highlighted by the red circle.



Photograph 14: View at PP-10 facing southwest from where the right-of-way
crosses Interstate 29.



Photograph 15: View at PP-10 facing east to where the substation would be constructed.



Photograph 16: View at PP-11, facing east.

Minnkota Power Cooperative
Agassiz Transmission Line and
Substation Project



Photographs- December 5, 2025
Cass County, North Dakota
**Please reference Attachment A for photo
locations on Figure 3*

Appendix C – 2025 Nest Survey Data Forms

NON-BREEDING SEASON RAPTOR NEST SURVEY FORM

PROJECT NAME	CLIENT	DATE OF SURVEY	OBSERVER NAME	NEST ID
Minnkota Agassiz Transmission Line and Substation Project	Minnkota Power Cooperative	12/5/2025	Jack Kauphusman	N-1
TIME OF OBSERVATION	TEMP (°F)	PRECIPITATION	CLOUD COVER (%)	WIND SPEED/DIRECTION
08:01	19	none	100	7 mph/ north

NEST LOCATION	SPECIES	NEST SIZE	NEST SUBSTRATE	NEST HEIGHT	NEST STATUS	NEST CONDITION
46.94917 N, -96.87516 W	Unknown	Medium	Tree (unidentifiable oak [Quercus Spp.])	3 meters (9.8 feet)	Inactive	Good

GPS LOCATION COLLECTED (Y/N): Y

PHOTO CAPTURED (Y/N): Y

PROXIMITY TO PROJECT ROW: 120 feet

SURVEY NOTES

One inactive medium sized nest, directly adjacent to an agricultural field within the southern end of a shelterbelt, located between the branches of an oak tree. Based on the nest size, suspected species to utilize the nest include Cooper's hawk, great horned owl, red-tailed hawk, or common raven.

OTHER OBSERVATIONS

Just to the south of the inactive stick nest, were various squirrel nests at the corner of where the agricultural field and gravel road occurs.

NEST ID: N-1

OBSERVER INITIALS: JHK

NON-BREEDING SEASON RAPTOR NEST SURVEY FORM

PROJECT NAME	CLIENT	DATE OF SURVEY	OBSERVER NAME	NEST ID
Minnkota Agassiz Transmission Line and Substation Project	Minnkota Power Cooperative	12/5/2025	Jack Kauphusman	N-2
TIME OF OBSERVATION	TEMP (°F)	PRECIPITATION	CLOUD COVER (%)	WIND SPEED/DIRECTION
08:21	21	none	100	9 mph/ north

NEST LOCATION	SPECIES	NEST SIZE	NEST SUBSTRATE	NEST HEIGHT	NEST STATUS	NEST CONDITION
46.95748 N, -96.87562 W	Bald Eagle	Large	Tree (unidentifiable oak [<i>Quercus</i> Spp.])	14 meters (45.9 feet)	Inactive	Good

GPS LOCATION COLLECTED (Y/N): Y

PHOTO CAPTURED (Y/N): Y

PROXIMITY TO PROJECT ROW: 1,200 feet

SURVEY NOTES

Very large nest located within the upper branches of a large oak tree at the northern end of a shelterbelt. This nest is assumed to be a bald eagle nest based on the large size and location within the tree. An adult bald eagle was observed perching approximately 60 feet south of the nest location. No courtship behavior was observed by the adult eagle at the time of the survey.

OTHER OBSERVATIONS

Various migratory waterfowl observed flying overhead, including mallards, ring-billed ducks, and Canada geese.

NEST ID: N-2

OBSERVER INITIALS: JHK

