Environmental Assessment

Maple River (ND) to Buffalo River (MN) Switch 69kV Line Rebuild

Prepared for
Minnkota Power Cooperative, Inc.

October 2023

U.S. Department of Agriculture
Rural Utilities Service (RUS)

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ENVIRONMENTAL ASSESSMENT

Prepared for
United States Department of Agriculture
Rural Utilities Service
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Washington, DC 20250

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Acronyms and Abbreviations

APE	area of potential effects
BCC	Birds of Conservation Concern
BMPs	best management practices
BNSF	Burlington Northern Santa Fe
CFR	Code of Federal Regulations
CWA	Clean Water Act
EA	Environmental Assessment
EMF	electromagnetic fields
EO	Executive Order
ESA	Endangered Species Act
FAA	Federal Aviation Administration
fbgs	feet below ground surface
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act
HDD	horizontal direction drilling
IBA	Important Bird Area
IPaC	Information, Planning, and Conservation System
kV	kilovolt
MBTA	Migratory Bird Treaty Act
MDNR	Minnesota Department of Natural Resources
MPCA	Minnesota Pollution Control Agency
NDDA	North Dakota Department of Agriculture
NDDEQ	North Dakota Department of Environmental Quality
NDGF	North Dakota Game and Fish
NEPA	National Environmental Policy Act
NHIS	Natural Heritage Information System
NHPA	National Historic Preservation Act
NHR	Natural Heritage Review
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
PWI	Minnesota Public Waters Inventory
RGP	Regional General Permit
ROW	right-of-way
RUS	Rural Utility Service
SBS	Sites of Biodiversity Significance
SHPO	State Historic Preservation Office
USACE	U.S. Army Corps of Engineers

USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WMA	Wildlife Management Area
WPA	Waterfowl Production Area

1 Purpose and Need

This Environmental Assessment (EA) was prepared in accordance with Title 7 of the Code of Federal Regulations (CFR) Part 3100 (7 CFR 3100), which prescribes the policies and procedures of the U.S. Department of Agriculture (USDA) for implementing the National Environmental Policy Act (NEPA) of 1969, as amended, the regulations of the Council on Environmental Quality, 40 CFR parts 1500 through 1805, and the USDA Rural development guidance document 1970-C. Guidance document 1970-C serves as a guide for preparing EAs under NEPA. An EA is a concise public document used by the USDA to determine whether impacts associated with a project justify a finding of no significant impact or if preparation of an Environmental Impact Statement is needed.

The Project will require compliance with several federal regulations, including Section 404 of the Clean Water Act (CWA), Section 10 of the Rivers and Harbors Act, Section 7 of the Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act, Section 106 of the National Historic Preservation Act (NHPA), and the Clean Air Act. Federal and state regulations relevant to the Project are further discussed in Section 3.

1.1 Project Description

Minnkota Power Cooperative, Inc (Minnkota) is proposing to replace aging, 1940's era wood transmission line structures along approximately 25.5 total miles of existing 69 kilovolt (kV) transmission line. The Project runs from east of Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1-1). In addition, Minnkota plans to provide partial funding support to Red River Valley Electric Cooperative to bury an existing distribution line that is currently strung below the existing Minnkota 69 kV line (referred to as an underbuild).

The portion of the underbuild to be buried is approximately 8.1 miles in length and would cross the Buffalo River. This portion of the Project is located entirely in Minnesota and extends from Section 4, Township 140N, Range 48W to Section 2, Township 140N, Range 47W (Figure 1-1). In the agricultural fields crossed by the Project, Red River Valley Electric Cooperative plans to bury the underbuild through the use of a cable plow, which will create a narrow slot in the ground at least 4 feet deep and then directly bury conduit into the created slot through a reel-mounted spool on the back of the machine. The slot is then backfilled and compacted by a process of blading or "wheel rolling" the excavated material back into the slot, resulting in minimal disturbance to the ground. Red River Valley Electric Cooperative plans to install the buried line via horizontal direction drilling (HDD) under roads, residential yards, and the Buffalo River.

The existing poles are wood structures installed in the late 1940s. The replacement structures would primarily be single (i.e., monopole) wood or ductile iron poles with fiberglass davit arms, toughened glass insulators, and a single shield wire. The proposed monopole structures would generally be self-supporting (un-guyed) and directly embedded. The existing structures range in height between 45 and 55 feet. The new structures would range in height between 65 and 80 feet, with an average new pole height of approximately 70 feet. The new line would have a 350-foot to 400-foot span between structures. Two or

three-pole structures may be used for wetland or water crossings greater than 350 feet. Deadend and angle structures, as well as some tangent structures used to span wetlands when feasible, would be guyed. Guy wires would be anchored using screw anchors. The Project will occur within the existing transmission line right-of-way (ROW), which is 80 feet in width. The replacement structures are planned to be installed as close to the existing structure location as is possible and structurally safe (i.e., pole-to-pole replacement). Existing structures that are currently located within wetlands that are not spannable would be replaced with a structure in the same location as original within the wetland, resulting in temporary wetland impacts from construction access. The Project would not result in permanent wetland impacts. The Project has been determined to be exempt under Minnesota Rules 8420.0420(6) for utilities and the U.S. Army Corps of Engineers (USACE) verified that the regulated activities are authorized by the Utility Regional General Permit (RGP) on July 17, 2023.

The structure replacement process would generally include staging, erecting pole structures, and stringing the transmission line. Typical construction equipment that may be used for the Project includes line construction equipment, stringing equipment, and general construction equipment on rubber tires or tracks, as appropriate. Minnkota would incorporate best management practices (BMPs) into Project design to minimize the potential for impacts during construction; some of these measures may include constructing during winter months in some areas, installing silt fences and/or silt logs, and use of construction matting,

Minnkota would access the transmission line ROW from existing roads or trails that run parallel or perpendicular to the current ROW. In some situations, private field roads or trails may be used, with landowner permission. Roads will be returned to their original condition or better following construction. For stringing over state highway, a work zone would be established and a police officer would be on site per county regulations. No long-term roadway closures would occur (i.e., for 6 months to a year); however, some temporary detours may be necessary. A traffic control plan would be included as notes in the Project design and used during construction. Minnkota plans to coordinate these activities with the affected property owner(s) and/or state and local highway departments, as appropriate. No permanent impacts to roads or highways would occur as a result of the Project.

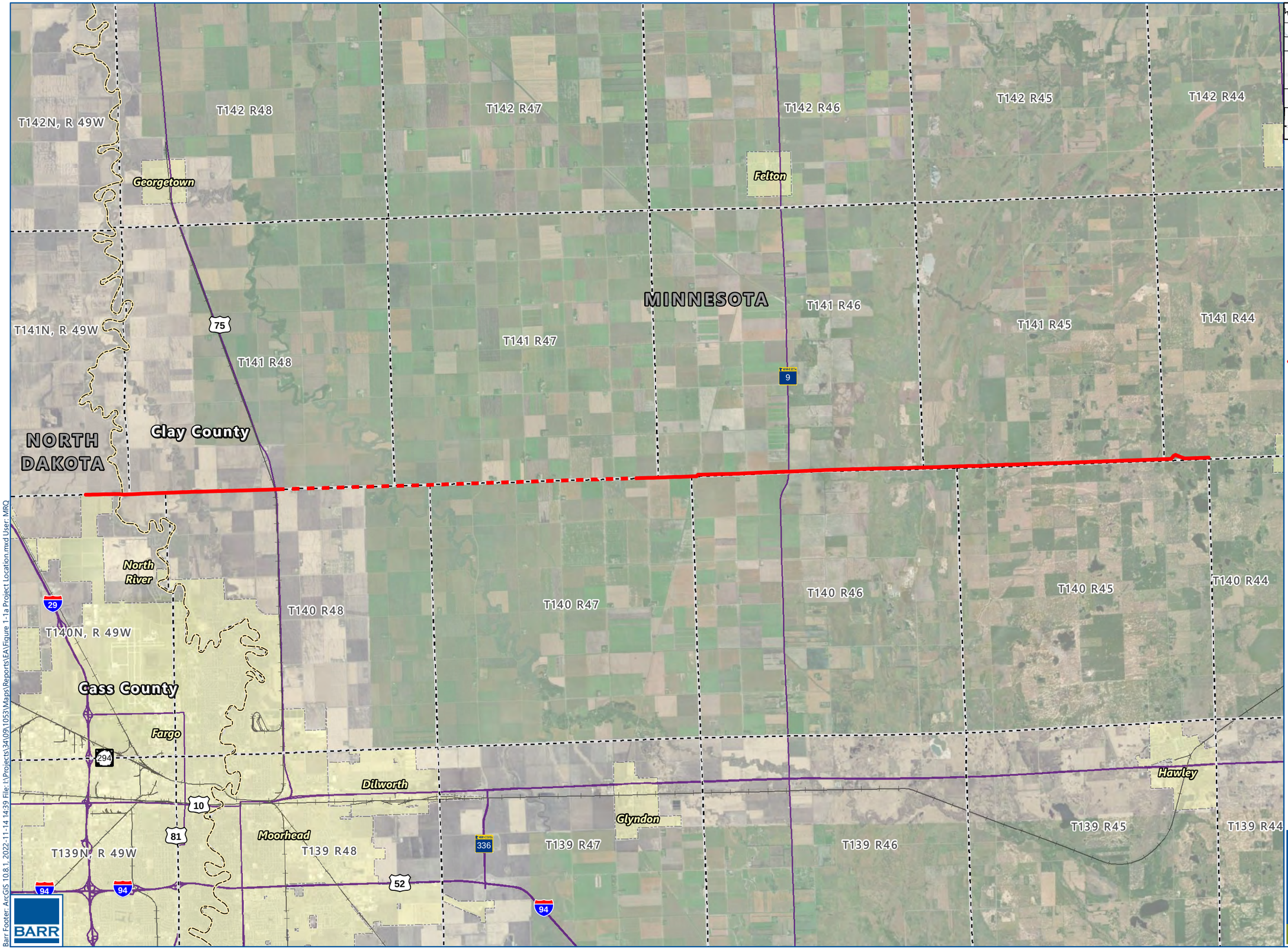
The new structures would typically be staged within the ROW until the structure is set. Depending on site conditions, structures may be framed in the ground and lifted into place, or the structures may be set first with bracing and hardware then attached.

Minnkota is anticipating removal of existing poles, with the replacement structures to be installed in the area where the original pole was removed (i.e., pole-to-pole replacement). The holes for setting the new transmission line structures would be mechanically augured, and the poles would be placed using a digger/derrick truck. Auger holes for wooden replacement structures would be approximately 27 inches in diameter. The augured holes for any laminate poles installed along the line would be approximately 72 inches (six feet) in diameter. Minnkota has not yet determined where along the line laminate poles would be required; however, most of the replacement poles are anticipated to be wood. After pole placement, holes would be backfilled with a crushed rock. Spoil earth from the augured hole would then be thin-spread around the area at the base of the transmission structure. However, no placement of spoil earth

would be allowed in wetlands. The Project would not permanently impact any wetlands since the new poles will be replacing existing poles in-kind. Minnkota also intends to conduct pole replacements that are in or near wetlands during the winter to minimize potential impacts.

After the structures have been assembled, set, and secured, conductors would be installed by establishing stringing setup areas along the route. These setup areas will be located in the ROW on level ground and on hard surfaces when present. The conductors will be pulled with a rope lead that connects to each structure through dollies attached at the insulator locations. The existing conductor will serve as the rope lead where possible to minimize redundant traffic on the ROW. Staging areas placed on level agricultural ground will be returned to their original condition or better following construction.

Once construction is complete, line maintenance would consist of annual ground inspections. After construction, vegetation would be controlled according to Minnkota's vegetation management program. Construction activities are anticipated to begin in Fall 2023, pending approval of all required permits and environmental documents. Construction would be completed by Summer 2024. Minnkota is anticipating between six and eight months of construction, plus one additional month per seasonal transition. The Project would also be constructed in sections so that specific areas with seasonal restrictions can be completed as needed.



Barr Footer: ArcGIS 10.8.1, 2022-11-14 14:39 File: I:\Projects\34\09\1053\Maps\Reports\EA\Figure 1-1a Project Location.mxd User: MRQ

PROJECT LOCATION

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-1a

Cass County



- County Boundary
- Municipality
- Public Land Survey Sections
- Major Highway
- Railroad

Proposed Project Features

- Proposed Above Ground Transmission Alignment
- Proposed Underbuild Transmission Alignment

0 0.5 1
Miles

Imagery: Esri World Imagery

PROJECT LOCATION
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-1b

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1.2 Purpose and Need

The Project is needed to update aging electrical transmission infrastructure in order to meet current safety standards and provide a reliable, uninterrupted supply of affordable electric power to Minnkota's service area. The existing 69 kV transmission line was originally constructed in the 1940s and built with treated wood poles; these wood poles have reached the end of their useful life. Replacing the poles would provide greater strength and additional height to support a heavier conductor and the addition of an overhead ground wire to protect and reduce blink outages that are typical with the existing infrastructure. The Project purpose is to modernize the aged wood transmission line support poles in order to meet current safety and reliability standards.

Minnkota plans to finance up to 100% of the total cost of the Project though Rural Utility Service's (RUS) loan program as authorized under the Rural Electrification Act. The Rural Electrification Act of 1936, as amended (7 United States Code §§901 et seq.), authorizes the Secretary of Agriculture to make loans for rural electrification and for the purpose of furnishing and improving electric and telephone service in rural areas. The proposed Federal Action is for RUS to provide a loan to Minnkota to support the construction of the Project.

2 Alternatives Evaluated Including the Proposed Action

This section provides information on the development and evaluation of Project alternatives. The development of Project alternatives is directly tied to the purpose and need for the Project. Alternatives to the Project were screened to assess the ability of the alternatives to meet the identified need for the Project and to provide a comparison of the impacts of different alternatives in meeting the identified need for the Project.

2.1 Proposed Action: Alternative B

Alternative B is the proposed action, which includes financial assistance from RUS to rebuild the existing Maple River to Buffalo River 69kV transmission line, as well as burying the existing Red River Valley Electric Cooperative distribution line.

The nature and scope of the Project, rebuilding an existing transmission line in existing ROW, reduces further impacts by limiting construction to an already disturbed ROW.

2.2 Other Alternatives Evaluated

Minnkota considered other alternatives to the Project, but each was eliminated from further consideration as described below.

2.2.1 Location Alternatives

Because the proposed transmission line rebuild will be located in an existing transmission line ROW, any alternatives to the current alignment could potentially affect a larger area, cost more to construct, affect more property owners (from ROW acquisitions or other impacts), and have greater environmental impacts. Therefore, the proposed rebuild in existing ROW was the only location alternative considered in detail for the proposed action.

2.2.2 Construction Alternatives

Minnkota also considered rebuilding the existing Maple River to Buffalo River 69 kV transmission line and keeping the Red River Valley Electric Cooperative distribution line strung below the Minnkota's 69 kV line as an aboveground underbuild, as opposed to burying the Red River Valley Electric Cooperative distribution line. However, because burying the underbuild reduces induced voltage issues present when infrastructure carries both transmission and distribution lines, keeping the underbuild aboveground does not meet the purpose and need.

2.3 No Action Alternative: Alternative A

Alternative A is the no action alternative. Under this alternative, RUS would not provide financial assistance and the proposed rebuild of the existing Maple River to Buffalo River transmission line would

not occur. This could result in failure of the existing 69 kV transmission line or continued blink outages, which would not meet the purpose and need of the Project.

3 Affected Environment and Environmental Consequences

This section describes baseline conditions across a variety of natural and human-based resources in the Project Area. Potential impacts of Project alternatives identified in Section 2 are addressed, as well as mitigation for such impacts, as applicable.

3.1 Land Use

This section addresses the existing land use of the site, potential impacts to the environment resulting from each Project alternative, and mitigation measures for potential adverse impacts.

3.1.1 General Land Use

The Project includes a small portion of Cass County, North Dakota and then travels approximately 24.5 miles across Clay County, Minnesota.

3.1.1.1 Affected Environment

The Project is centered on the existing transmission line ROW adjacent to State Aid Highway 26 in Minnesota and Highway 22 North in North Dakota. The land within the Project Area is used as a transportation corridor, utility corridor, and agricultural land, i.e., pasture, cropland, and nearby farmsteads. Areas of federal and state land are also scattered throughout the Project Area, as discussed in the sections below.

3.1.1.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – Alternative B would occur within the existing transmission line ROW. The Project Area would be temporarily disturbed during construction activities. However, once construction is complete the Project Area would continue its current use as a utility corridor. There would be no permanent change to the current land use or adjacent land use. The Project would not affect existing zoning in Cass County, North Dakota and Clay County, Minnesota. The Project would be compatible with the 2018 Cass County Comprehensive and Transportation Plan (reference (1)), the 2045 Clay County Comprehensive and Transportation Plan (reference (2)), and the Buffalo-Red River Watershed Comprehensive Watershed Management Plan (reference (3)).

No Action (Alternative A) – Alternative A would not impact general land use.

3.1.2 Important Farmland

The Farmland Protection Policy Act (FPPA), the USDA regulation implementing FPPA (7 CFR Part 658), and the USDA Departmental Regulation No. 9500-3-Land Use Policy (reference (4)), provide protection for prime and important farmland and prime rangeland and forestland. Section 658.5 of the FPPA provides criteria for federal agencies to identify and consider the adverse effects of federal programs on the protection of farmland. Federal agencies are to consider alternate actions, as appropriate, that could

lessen adverse effects; and to assure that such federal programs, to the extent practicable, are compatible with state, local government, and private programs and policies to protect farmland.

Prime farmland is land that has the best physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for this use. Unique farmland is land other than prime farmland that is used for production of specific high-value food and fiber crops. In addition, state agriculture agencies may designate additional areas as farmland of statewide importance. These areas are considered locally important for production of high yields of crops with important economic value.

3.1.2.1 Affected Environment

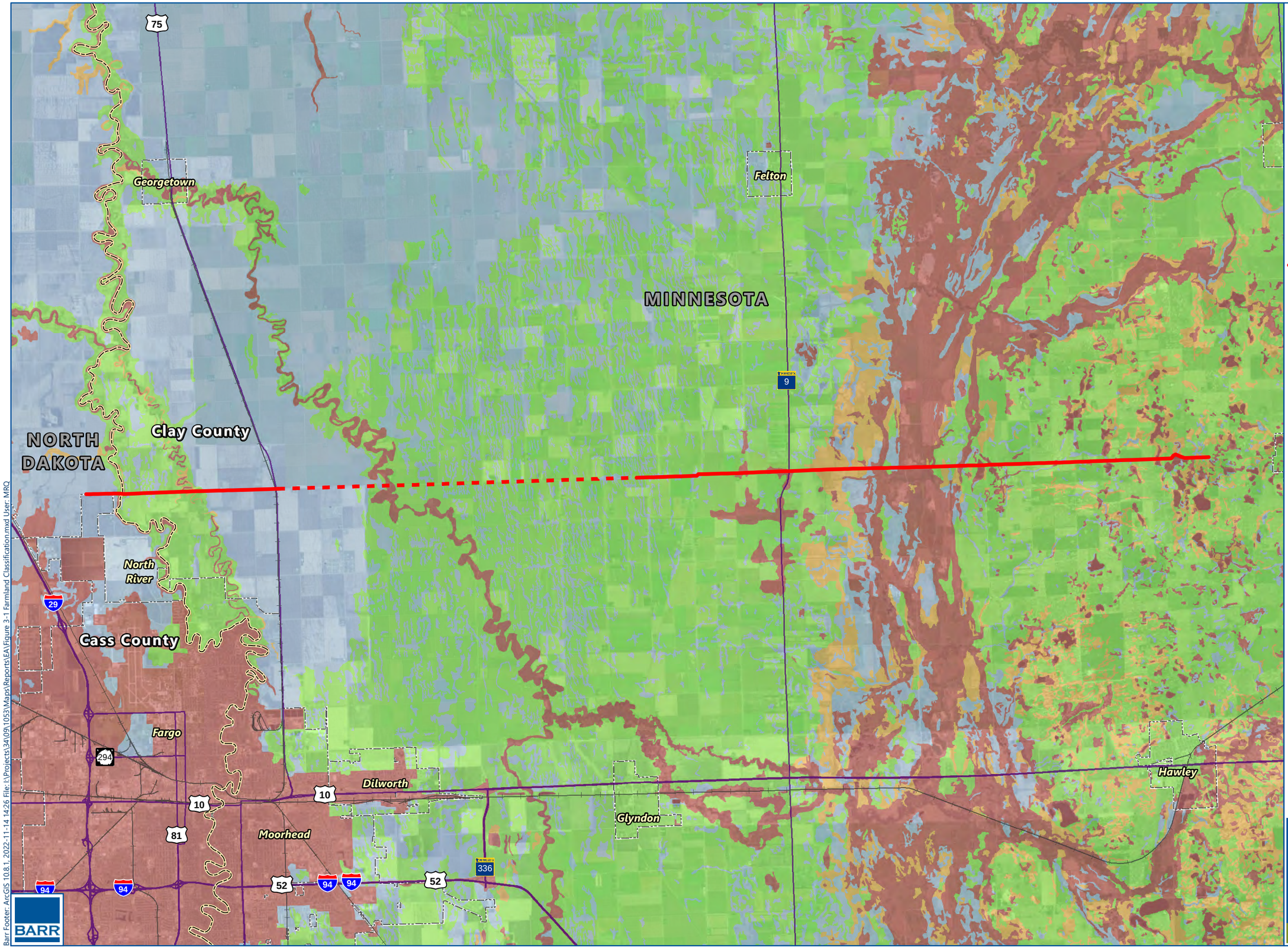
According to the USDA Web Soil Survey, approximately 54% of the Project Area (132.9 acres) is classified as prime farmland and 27% of the Project Area (66.8 acres) is classified as prime farmland if drained (reference (5)). Of the remaining acreage, 11% of the Project Area (28.2 acres) is classified as not prime farmland and 8% of the Project Area (19.4 acres) is classified as farmland of statewide importance (Figure 3-1).

3.1.2.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – Alternative B would replace the existing transmission line across 199.6 acres of prime farmland and prime farmland if drained (Figure 3-1) and 19.4 acres of farmland of statewide importance. This prime farmland and farmland of statewide importance would be temporarily disturbed during construction activities. Temporary impacts to prime farmland would include site access and cable plowing the buried segment of the underbuild. After construction is complete, the disturbed locations would be restored to their original condition. The Proposed Action would not result in the loss or conversion of prime farmland or farmland of statewide importance.

Coordination with the USDA-Natural Resources Conservation Service determined that the Project is exempt from the FPPA because it consists of existing ROW purchased on or before August 4, 1984 (Appendix A).

No Action (Alternative A) – Alternative A would result in no changes to important farmland in the Project Area.



Barr Footer: ArcGIS 10.8.1, 2022-11-14 14:26 File: I:\Projects\34\09\1053\Maps\Reports\EA\Figure 3-1 Farmland Classification.mxd User: MRQ

3.1.3 Formally Classified Lands

The USDA identifies the following as formally classified lands: monuments, landmarks, wild and scenic rivers, wilderness areas, state or national parks, reservations, recreational areas, city parks, U.S. Fish and Wildlife Service (USFWS) and Bureau of Land Management administered lands, wildlife refuges, and national forests and grasslands.

3.1.3.1 Affected Environment

The following formally classified lands are located within one mile of the Project boundary (Figure 3-2):

- Waterfowl Production Areas (WPA)
- Wildlife Management Areas (WMAs) and State Game Refuges and Minnesota Department of Natural Resources (MDNR) Management Units
- Conservation Easement

Waterfowl Production Areas

WPAs are public lands managed by USFWS for the purpose of preserving habitat for waterfowl and other wildlife. These areas are typically wetlands or grasslands that provide roosting and nesting habitat for waterfowl. Most of these federally managed wetlands and surrounding uplands are open to hunting (reference (6)). There are two WPAs located within the Project Area (Figure 3-2), Tatlie Lake WPA and Hatchet Lake WPA. In total there are approximately 2,900 acres of WPA land within one mile of the Project Area. Minnkota has an easement through the WPAs along the existing transmission line corridor.

Waterfowl Management Areas, State Game Refuges, DNR Management Units

The State of Minnesota established WMAs, state game refuges and designated Management Units to protect and manage lands and waters for wildlife production, public hunting, trapping, fishing, and other recreational activities.

Minnesota has approximately 1,500 WMAs, consisting of over 1.3 million acres of public land (reference (7)). There is one WMA within the Project Area, the Flowing Prairie WMA. There are two additional WMAs located within one mile of the Project Area; the Jeral and Cromwell WMAs. In addition, there is another forested land located within the Flowing Prairie WMA that is managed as forested property by the MDNR.

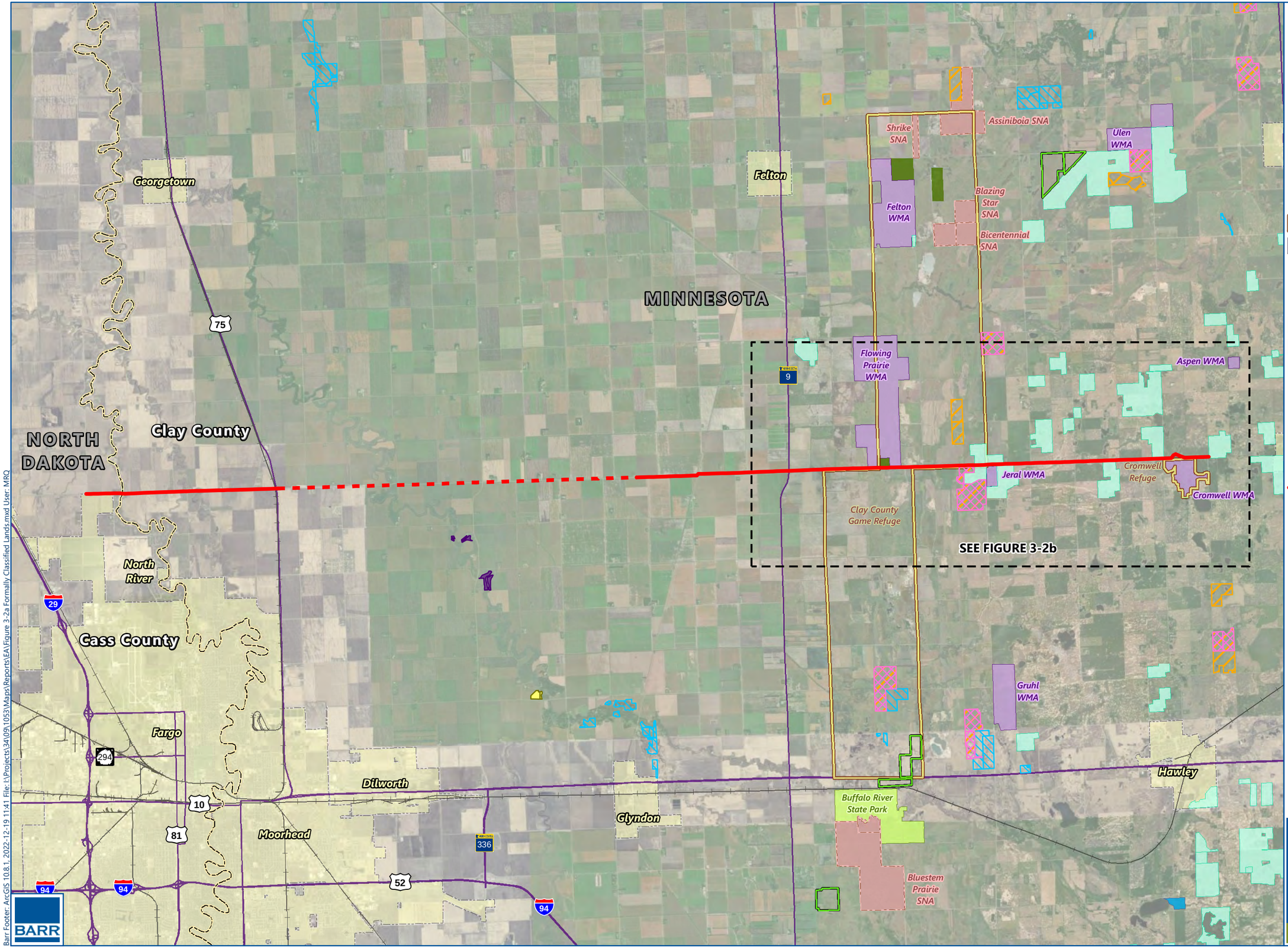
Conservation Easements

Conservation easements are properties that have been sold or donated by a landowner to a qualified conservation organization (land trust or government agency) and continue a voluntary legal agreement that limits or conditions certain type of use of the land to fulfill the conservation purpose of the easement. The following conservations programs are common in Minnesota.

- Conservation Reserve Program

- Conservation Reserve Enhancement Program
- Reinvest in Minnesota
- Wetlands Reserve Program
- Permanent Wetland Preserves

No known conservation easements are located within the Project Area. There is one property enrolled in the Reinvest in Minnesota and Wetland Reserve programs within one mile of the Project Area (Figure 3-2). This conservation easement is located on the opposite side of Highway 26 and would not be impacted the Project.



County Boundary
Municipality
Major Highway
Railroad
Aquatic Management Area
Scientific and Natural Area
Other Forest Land
State Park
Wildlife Management Area
State Game Refuge
National Wildlife Refuge
Waterfowl Production Area

MN State Funded Conservation Easements (RIM Reserve)

CREP II
CREP III
RIM
RIM-WRP

NRCS Conservation Easement

WRP

Proposed Project Features

Proposed Above Ground Transmission Alignment
Proposed Underbuild Transmission Alignment

N

0 1 2
Miles

Imagery: Esri World Imagery

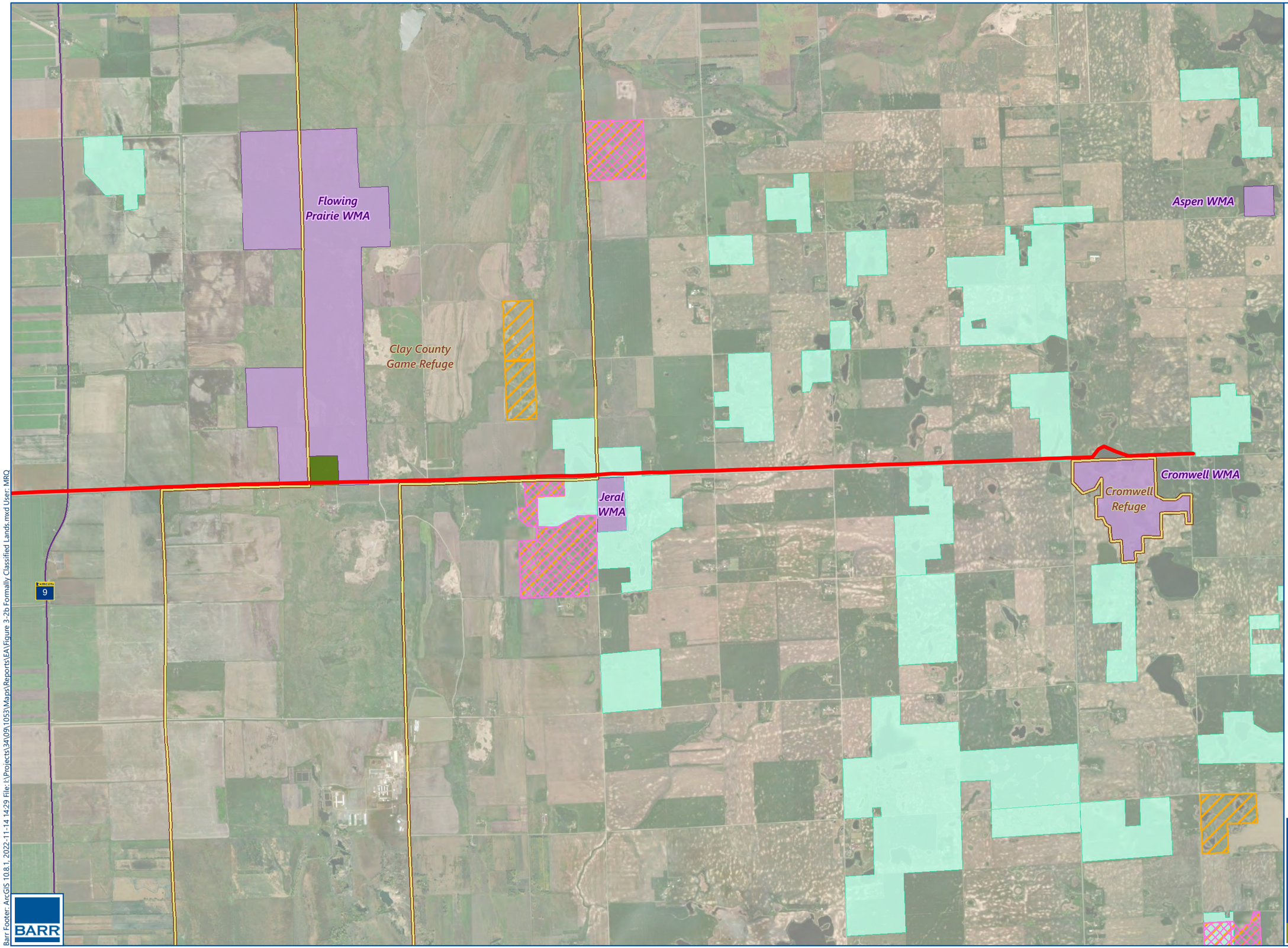
FORMALLY CLASSIFIED LANDS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 3-2a

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Barr Footer: ArcGIS 10.8.1, 2022-12-19 11:41 File: I:\Projects\34\09\1053\Maps\Reports\EA\Figure 3-2a Formally Classified Lands.mxd User: MRQ



Major Highway
Other Forest Land
Wildlife Management Area
State Game Refuge
Waterfowl Production Area

MN State Funded Conservation Easements (RIM Reserve)
RIM-WRP

NRCS Conservation Easement
WRP

Proposed Project Features
Proposed Above Ground Transmission Alignment

0 2,000 4,000
Feet

Imagery: Esri World Imagery

FORMALLY CLASSIFIED LANDS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 3-2b

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Barr Footer: ArcGIS 10.8.1, 2022-11-14 14:29 File: I:\Projects\34\09\1053\Maps\Reports\EA\Figure 3-2b Formally Classified Lands.mxd User: MRQ

3.1.3.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – The Proposed Action would replace the existing transmission line located within the Tatlie Lake WPA and Hatchet Lake WPA through Minnkota's existing easements with USFWS. Minnkota applied for and received a Special Use Permit from USFWS on September 27, 2022 for rebuild activities within the WPAs (Appendix A). Minnkota will rebuild the existing transmission line in the Flowing Prairie WMA within the confines of their existing ROW. The Tatlie Lake and Hatchet Lake WPAs and the Flowing Prairie WMA are located in the eastern part of the Project Area (Figure 3-2b), where impacts would be restricted to structure replacement. None of these lands are located within the underbuild portion of the Project. The Project would not change the land classifications or alter the existing land use within the Project Area. After construction is complete all the temporarily disturbed locations would be returned to their pre-construction condition. No Action (Alternative A) – Alternative A would result in no changes for formally classified lands.

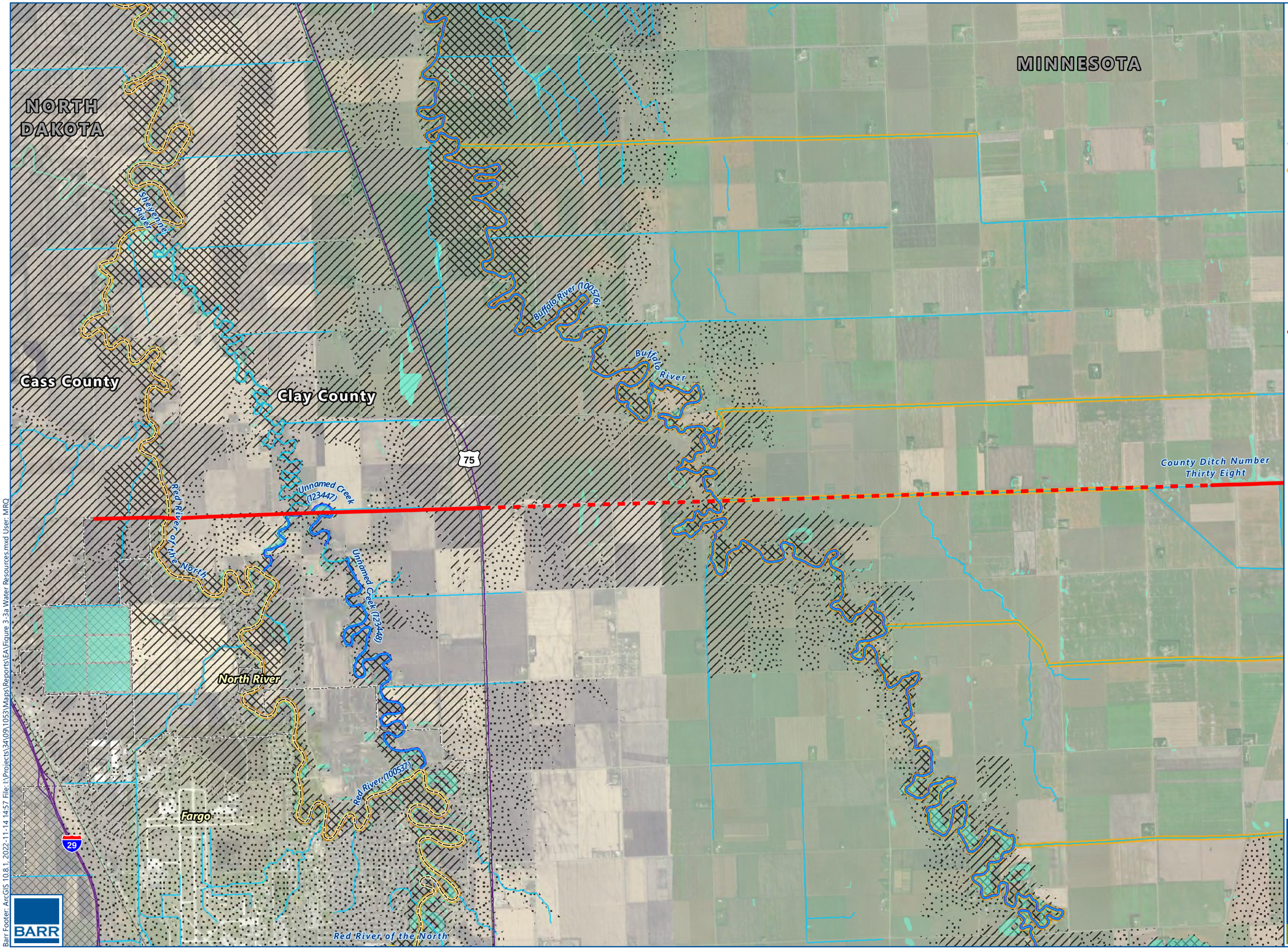
3.2 Floodplains

Executive Order (EO) 11988, Floodplain Management, requires that to the extent practicable, federal agencies avoid actions which would result in the locations of facilities in floodplains and/or affect floodplain values.

3.2.1 Affected Environment

Floodways include the channel of a watercourse and the portion of the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Floodplains are low-lying areas that are subject to periodic inundation due to heavy rains or snow melt. Floodplain areas are generally adjacent to lakes, rivers, and streams. In their natural state, floodplains provide necessary temporary water storage during flooding events.

Floodplain data for Cass County, North Dakota and Clay County, Minnesota were obtained from the Federal Emergency Management Agency. As shown on Figure 3-3, the existing transmission line crosses floodways associated with the Red River of the North, the Buffalo River, and an unnamed stream, as well as 100-year floodplain (Zone A and AE) and 500-year floodplain (Zone X).



County Boundary
Municipality
Major Highway
Railroad
Stream (USGS NHD)
Public Water Watercourse
Impaired Streams
NWI Wetland

FEMA National Flood Hazard

Floodway
100-year Floodplain
500-year Floodplain

Proposed Project Features

Proposed Above Ground Transmission Alignment
Proposed Underbuild Transmission Alignment

N

0 0.5 1
Miles

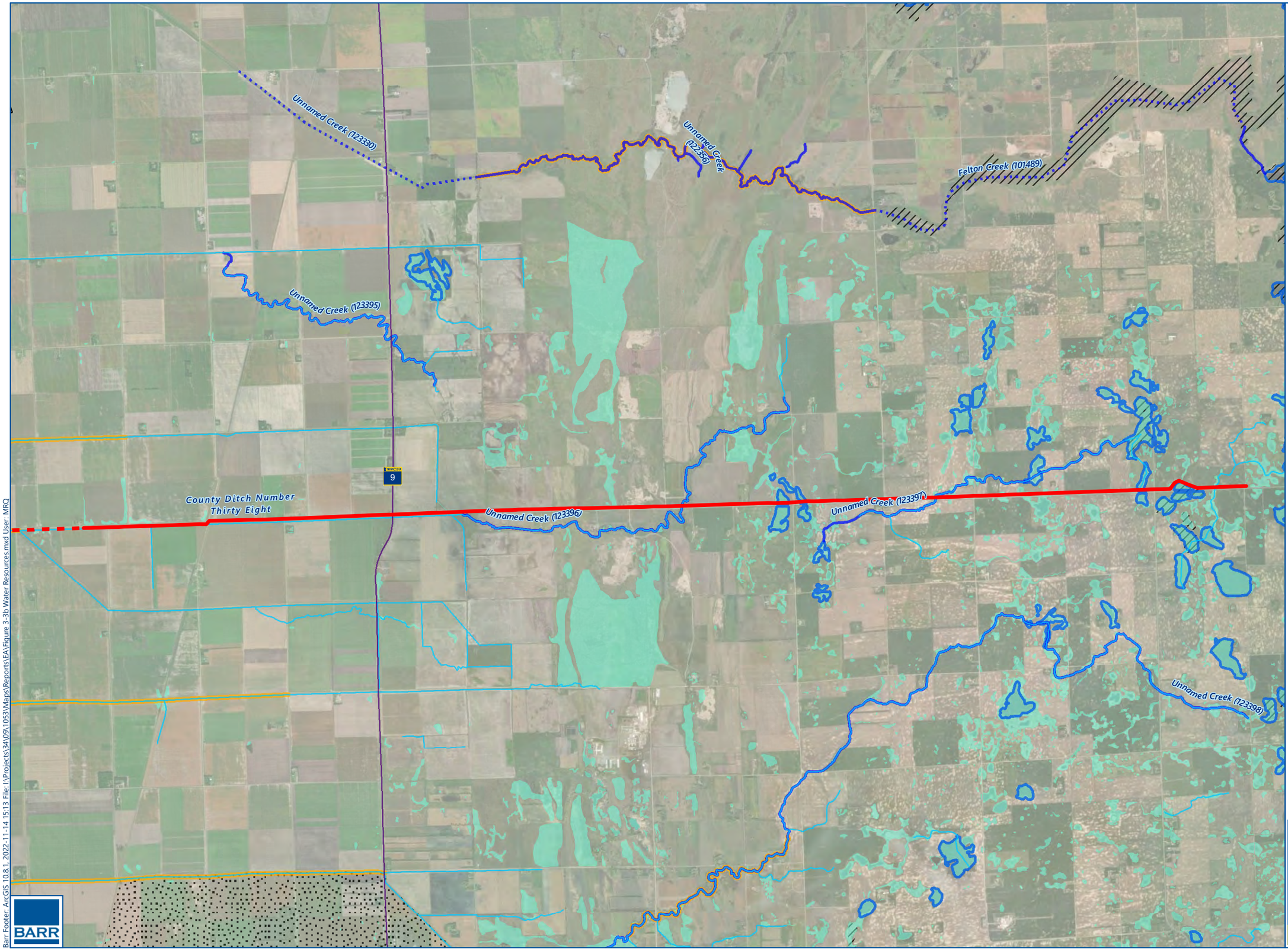
Imagery: Esri World Imagery

WATER RESOURCES
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 3-3a

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Major Highway

Public Water Watercourse

Public Ditch/Altered Natural Watercourse

Impaired Streams

Public Waters Basin

FEMA National Flood Hazard

100-year Floodplain

500-year Floodplain

Proposed Project Features

Proposed Above Ground Transmission Alignment

Proposed Underbuild Transmission Alignment

0 0.5 1

Miles

Imagery: Esri World Imagery

WATER RESOURCES

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 3-3b

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3.2.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – Construction of the rebuild portion of the Project would involve replacement of existing poles. The replacement structures are planned to be installed within the same hole as the existing structures or as close to the existing structure location as possible. The existing transmission line spans all streams and lakes; however, some structures are located in their associated floodways. Although 100-year floodplains were likely spanned to the extent feasible when the original transmission line was constructed, there are areas of 100-year floodplain that are too large to span; as such, any poles that are currently located within the 100-year floodplain would require installation of a replacement structure in the same location or adjacent to the existing structure within the floodplain. In order to facilitate access during construction, a small number of trees in the ROW may need to be cleared. Removal of trees would be monitored and documented. In addition, for each tree removed, two trees would be planted in the vicinity. No permanent changes to general landcover in floodplains is anticipated. As discussed in Section 2, after pole placement is complete, holes would be backfilled with a crushed rock. Spoil earth from the augured hole would be thin spread around the area at the base of the transmission structure. However, no placement of spoil earth would occur within floodways or 100-year floodplain.

The underbuild portion of the Project would involve burying approximately 8.1 miles of a distribution line. The underbuild portion would cross 100-year floodplain (Figure 3-3). As discussed in Section 2, the distribution line would be buried by cable plow to a depth of approximately 4 feet; however, HDD methodologies would be used to cross the Buffalo River and ditches, roads, and yards.

In areas of floodway and floodplain where structures would be replaced or the distribution line would be installed by cable plow, groundcover and soils would be temporarily disturbed. Erosion control BMPs, such as silt fences, silt logs, or other measures deemed appropriate by Minnkota, would be used during construction of the rebuild and buried underbuild portions of the Project to minimize impacts to floodplain resources. The disturbed areas associated with the removal of the existing structures and burying the distribution line would be graded and revegetated to pre-construction conditions so that water flow is not impeded during flooding events.

No Action (Alternative A) –Alternative A would result in no changes to floodplains in the Project Area.

3.3 Wetlands

Wetlands are defined in both the 1977 EO 11990-Protection of Wetlands and in Section 404 of the CWA of 1986 as those areas that are inundated by surface or groundwater with a frequency to support and under normal circumstances does or would support a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands are protected at the federal level under Section 404 of the CWA and at the state level under the Minnesota Wetland Conservation Act. North Dakota does not have state-level wetland regulations.

Three essential characteristics that define a wetland, as outlined in the Federal Manual for Delineating Jurisdictional Wetlands, are hydric soils, hydrophytic vegetation, and wetland hydrology. Wetlands are an

important natural resource that serve many functions such as protecting and improving water quality, providing fish and wildlife habitat, storing floodwaters, and recharging groundwater.

On July 17, 2023, Minnkota received approval from the Department of the Army which granted Project authorization to re-install the transmission line over the Red River under Section 10. The Project authorization also approved temporary discharge of fill material into 1.065 acres of wetlands for equipment access to replace poles and bury distribution line. A copy of the permit identified as regulatory file no. 2-23-00673-TMS is included in Appendix B.

3.3.1 Affected Environment

Wetlands within the Project Area were identified using National Wetland Inventory (NWI) data for North Dakota and Minnesota. According to the NWI and an off-site wetland determination that was conducted for the Project (Appendix C), approximately 24 acres of wetland are located in the Project Area; these wetlands consist of freshwater emergent wetlands, freshwater forested/shrub wetlands, freshwater ponds, and riverine wetlands (primarily roadside ditches adjacent and parallel to the existing transmission line). One of the NWI wetlands in the eastern part of the Project Area is listed in the Minnesota Public Waters Inventory (PWI); the existing transmission line crosses this PWI wetland.

3.3.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – Wetlands, including the PWI wetland, were spanned to the extent feasible when the original transmission line was constructed. However, any existing structures that are currently located within wetlands that were not spannable would require installation of a replacement structure in the same location within the wetland. No additional structures would be installed in wetlands. In some situations, two or three-pole structures may be used to span a wetland crossing that is greater than 350 feet. As discussed in Section 2, after pole placement is complete, holes will be backfilled with a crushed rock. Spoil earth from any augured holes in wetlands would be thin spread in adjacent uplands; however, no placement of spoil earth would occur within wetlands.

The underbuild portion of the Project would involve burying approximately 8.1 miles of a distribution line. According to the NWI, approximately 10.7 acres of wetland are located in the underbuild portion of the Project Area (Figure 3-3). The majority of these wetlands (~10 acres) are classified as riverine (ditches); these ditches are located parallel to the existing transmission line and adjacent road. The remaining wetlands consist of two freshwater forested/shrub wetlands; the existing ROW appears to be already cleared of woody vegetation where these two wetlands are located.

As discussed in Section 2, the distribution line would be buried through the use of a cable plow to a depth of approximately 4 feet; however, HDD methodologies would be used in certain situations, such as crossing rivers, ditches, roads, and yards. The ditches would generally be avoided, as the distribution line would be buried adjacent and parallel to them. Temporary impacts to the freshwater forested/shrub wetlands may occur if the distribution line cannot avoid them. In the agricultural fields crossed by the underbuild portion of the Project, the underbuild would be installed through the use of a cable plow, which would create a narrow slot in the ground at least 4 feet deep and then directly bury conduit into

the created slot through a reel-mounted spool on the back of the machine. The slot would then be backfilled and compacted by a process of blading or "wheel rolling" the excavated material back into the slot, resulting in minimal disturbance to the ground.

In areas of wetland where structures would be replaced or distribution line would be installed by the cable plow, groundcover and soils would be temporarily disturbed. Potential impacts to wetlands would be minimized by using BMPs, such as timber mats. In addition, erosion control BMPs, such as silt fences, silt logs, or other means determined appropriate by Minnkota would be used during construction of the rebuild and underbuild portions of the Project to minimize impacts to wetlands and other water resources in the vicinity of the Project Area. The disturbed areas associated with the removal of the existing structures and burying the distribution line would be graded and revegetated to pre-construction conditions so that water flow is not impeded during flooding events.

Minnkota submitted a joint permit application to the USACE on May 16, 2023 for approval of wetland impacts under WCA and Section 404 of the CWA. The off-site wetland determination that was conducted for the Project was also provided to the USACE along with the joint permit application (Appendix C).

Minnkota applied for coverage under the USACE Utility RGP for coverage under Section 404 and Section 10 of the CWA. This RGP authorizes discharges of dredged and fill material into waters of the United States and work in under or over any navigable water of the United States. This RGP includes regulated activities for single and complete linear projects to construct, maintain, or repair utility lines, including foundations for overhead utility line towers, poles, and anchors. This includes utility lines strung above, and routed in and under, Section 10 waters.

In addition, Minnkota is applying for exemption under the WCA according to Minnesota Statues 103G.2241 Exemption subdivision 6. Utilities; Public Works (a)(1). The Project aligns with the utilities, public works exemption as the Project's purpose is to replace the existing transmission line poles. Wetland impacts will occur from site access, removal of the existing poles, and drilling larger pole foundations within existing pole footprints. The disturbed locations will be restored to their preconstruction conditions and no permanent wetland impacts will occur.

On July 17, 2023, the USACE affirmed the applicability of the Utility RGP and issued their permit for the Project, also indicating the applicability of Project exemption under WCA in the process (Appendix B). No wetland mitigation was required as a condition of the permit application.

No Action (Alternative A) – Under Alternative A existing wetland conditions would remain.

3.4 Water Resources

Surface waters are regulated under Section 10 of the Rivers and Harbors Act (33 U.S.C. 401 et seq.) and Section 404 of the CWA. The Rivers and Harbors Act regulates such activities as excavating and dredging in, placing structures and materials on, and altering the course of these waterways (33 U.S.C. 403). The USACE issues permits under Section 10. Section 404 of the CWA regulates the discharge of dredged and fill material into waters of the United States. The CWA provides the authority to states to establish water

quality standards and to report on the quality of their waters. Section 303(d) of the CWA requires states establish beneficial uses for waters and compile a list of impaired waters that require a Total Maximum Daily Loads review on a bi-annual (every other year) basis.

3.4.1.1 Affected Environment

The Project Area lies within two major watersheds, the Upper Red River of the North watershed near the North Dakota and Minnesota border and the Buffalo River watershed. Within these watersheds, there are many surface water resources (streams and lakes) and associated floodplains in the vicinity of the Project (Figure 3-3). Wetlands are discussed in Section 3.3.

The major streams in the Project Area include the Red River of the North, a navigable water of the U.S., on the border of North Dakota and Minnesota and the Buffalo River in Minnesota. Several intermittent streams and ditches are also located in the Project Area. As shown on Figure 3-3, the Red River, the Buffalo River, and three unnamed streams are mapped in the PWI; the existing transmission line crosses all of these PWI watercourses. There are three lakes in the eastern part of Project Area, all of which are listed in the PWI; these include Hatchet Lake, an unnamed lake associated with the Tatlie Lake WPA, and Buhaug Lake; the existing transmission line crosses all of these PWI waterbodies.

The Red River of the North (from the Wild Rice River in North Dakota to the Buffalo River in Minnesota) and the Buffalo River (from the south branch of the Buffalo River to the Red River) are on the impaired waters list for aquatic life (turbidity), aquatic consumption (mercury in fish tissue), and aquatic recreation (*Escherichia coli*). County Ditch 25 (from County Ditch 26 to the Buffalo River) is also listed as impaired for aquatic life (benthic macroinvertebrates and fish bioassessments).

Groundwater resources within the Project Area are present in unconsolidated aquifers in surficial and/or buried sands. The presence of local aquifers is defined by the geologic history of the area, in particular the sediments deposited during the most recent glacial events. Water-bearing sand and gravel units are present in isolated pockets throughout the area. Connections between these pockets and their relationships to each other is complex and still under study, though in general they are interconnected, and groundwater flow is to the west and northwest. Bedrock aquifers in the region are very limited as the underlying bedrock is predominantly crystalline igneous and metamorphic rock, a very poor aquifer material.

The Minnesota Well Index lists several domestic wells and several environmental observation wells within several hundred feet of the Project Area. Pumping from these wells are likely to have negligible impact on the local water table due to their small pumping capacity. Static water level data for these wells indicated the following water table depths: 20-40 feet below ground surface (fbgs) in the east by Hitterdal; 0-20 fbgs in the center around State Highway 9; and 40-60 fbgs in the west, near Fargo. Historical water level data recorded by the National Groundwater Monitoring Network's observation wells are in agreement with these depths, and indicate groundwater levels fluctuate within a range of 10 feet or less over the past decade.

The Project Area does not fall within the boundaries of any drinking water supply management areas (DWSMAs). The nearest DWSMAs include Hitterdal (low vulnerability) to the east, Spring Prairie Colony (low vulnerability), and Moorehead-Buffalo Aquifer North (moderate to high vulnerability), both to the south. The U.S. Environmental Protection Agency's Sole Source Aquifers interactive map indicates that no sole source aquifers are located within the vicinity of the Project Area, with Mille Lacs Sole Source Aquifer being the closest and over 100 miles away.

3.4.1.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – Construction of the rebuild portion of the Project would involve replacement of existing poles. The replacement structures are planned to be installed within the same hole as the existing structures. The existing transmission line spans all streams and lakes. The minimum clearance for crossing a navigable water of the U.S is 20 feet. The existing transmission line currently has approximately 50 feet of vertical clearance at maximum operating temperature (maximum sag) over the Red River of the North, with the river at 14.45 gauge feet. Gauge feet measures the elevation of a river at a specific location, or gauge. To determine the gauge height of the Red River of the North, the National Weather Service's Advanced Hydrologic Prediction Service was referenced for the Red River of the North at Fargo, North Dakota (https://water.weather.gov/ahps2/hydrograph.php?wfo=fgf&gage=fgon8). The proposed line would be positioned higher than the existing crossing, having approximately 54 feet of vertical clearance at maximum operating temperature. Guide clearances have not been established by the U.S. Coast Guard on this river.

The overall impact of the Project on groundwater resources would be negligible. Impacts would be limited to the displacement of surficial sediments and soil, bedrock, and groundwater during drilling and cable plow operations. The Project would require drilling in the existing 420 boreholes for each replaced structure. Two of these will be for laminate poles, which would require a borehole 72 inches (6 feet) in diameter and up to 18 feet deep. The remaining borings will be 27 inches in diameter with a depth of 10.5 feet. Given these values, the maximum volume of displaced soil and groundwater would be approximately 18,470 cubic feet (or approximately 685 cubic yards) for the Project. Spoil earth from the augured hole would then be thin-spread around the area at the base of the transmission structure. However, no placement of spoil earth would be allowed in wetlands or other waters. Although not anticipated, groundwater from dewatering, if needed, would be discharged on-site using appropriate BMPs.

The Project would not involve discharge into local waters; as such, the Project is not anticipated to alter the impaired status of the Red River of the North, the Buffalo River, or County Ditch 25. In areas where structures would be replaced or the distribution line would be installed by the cable plow, groundcover and soils would be temporarily disturbed. Erosion control BMPs, such as silt fences, silt logs, or other measures deemed appropriate, would be used during construction of the rebuild and buried underbuild portions of the Project to minimize impacts to water resources in the vicinity of the Project Area. The disturbed areas associated with the removal of the existing structures and burying the distribution line would be graded and revegetated to pre-construction conditions so that water flow is not impeded during flooding events.

No Action (Alternative A) – Alternative A would result in no changes to water resources.

3.5 Coastal Resources

The Project runs from east of Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1-1). There are no coastal resources present in North Dakota or Minnesota; as such an analysis of potential impacts to coastal resources is not applicable to the Project.

3.6 Biological Resources

This section identifies the biological resources within the Project Area and addresses the potential effects of Project alternatives on those resources.

3.6.1 General Fish, Wildlife and Vegetation

The general fish, wildlife, and vegetation resources in the vicinity of the Project Area and potential effects of Project alternatives on those resources are discussed below.

3.6.1.1 Affected Environment

The MDNR, in collaboration with the U.S. Forest Service, developed an Ecological Classification System (ECS) for hierarchical mapping and classification of Minnesota land areas with similar native plant communities and other ecological features. Based on the ECS, the Project Area is located in the Red River Prairie Subsection of the Red River Valley Section of the Prairie Parkland Province (reference (8)). The majority of the section is glacial lake plain. Pre-settlement vegetation in the subsection was primarily composed of tallgrass prairie and wet prairie. At present, the majority of the subsection consists of ditched agricultural land. Dominant crops include corn, soybeans, sugar beets, and spring wheat. Wetlands, watercourses and associated riparian vegetation, and fragments of native vegetation are also present in the subsection.

While agricultural vegetation dominates the landscape, several ecological resources are located in the vicinity of the eastern part of the Project Area, such as MDNR native plant communities, MDNR Sites of Biodiversity Significance (SBS), Minnesota State Game Refuges, WMAs, USFWS WPAs, and National Audubon Society Important Bird Areas (IBAs) (Figure 3-4). As shown on Figure 3-4, the existing transmission line crosses through several of these ecological resources, including the southern edge of a northern mesic prairie (UPn23; conservation status rank S2, imperiled), the Clay County Game Refuge, the Flowing Prairie WMA, the Felton Prairie Important Bird Area, the Tatlie Lake WPA, and two SBS (one ranked "moderate" and one ranked "below" in biodiversity significance). The portions of these ecological resources where the existing transmission line crosses them are within an existing ROW; as such, they are disturbed from routine ROW maintenance activities.

These ecological resources combined with the agricultural landscape and river corridors in the vicinity of the Project Area provide habitat for a variety of wildlife species. Given the predominantly agricultural setting of the Project Area and the presence of an existing transmission line ROW, most of the wildlife in the area, such as deer, fox, coyote, turkey, pheasants, racoon, rabbits, skunk, rodents, waterfowl, and birds, are adapted to human disturbance.

The watercourses traversed by the Project provide habitat for a variety of fish species. The Red River of the North is regarded as one of the top fisheries in Minnesota and North Dakota. It's well known for its trophy-sized channel catfish; other common species include muskellunge, northern pike, smallmouth bass, fresh-water drum, sauger, bullheads, walleye, goldeye, mooneye, carp, and lake sturgeon (reference (9)). The Buffalo River is also highly regarded for fishing, with several of the same species found in the Red River of the North also found in the Buffalo River (reference (10)).

3.6.1.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – Impacts to fish are not anticipated from Alternative B because no discharge to local watercourses is anticipated for the Project, watercourses would be spanned for the rebuild portion of the Project, and the underbuild portion of the Project would involve use of HDD to bury the distribution line under watercourses and ditches.

Because the Project would be re-built in the existing transmission line ROW, which undergoes routine maintenance, impacts to vegetation are anticipated to be minimal and/or temporary in nature. In order to facilitate access during construction, a small number of trees in the ROW may need to be cleared. Removal of trees would be monitored and documented. In addition, for each tree removed, two trees would be planted in the vicinity. No permanent changes to general landcover or habitat types would occur as a result of the Project. In areas where structures would be replaced or the distribution line would be installed by the cable plow, groundcover and soils would be temporarily disturbed. Impacts within the portion of the ROW that crosses through the ecological resources located in the eastern part of the Project Area (Figure 3-4) would be restricted to structure replacement, as the underbuild portion of the Project, where more ground disturbance would occur, is located in a predominantly agricultural area over 3 miles to the west of these ecological resources.

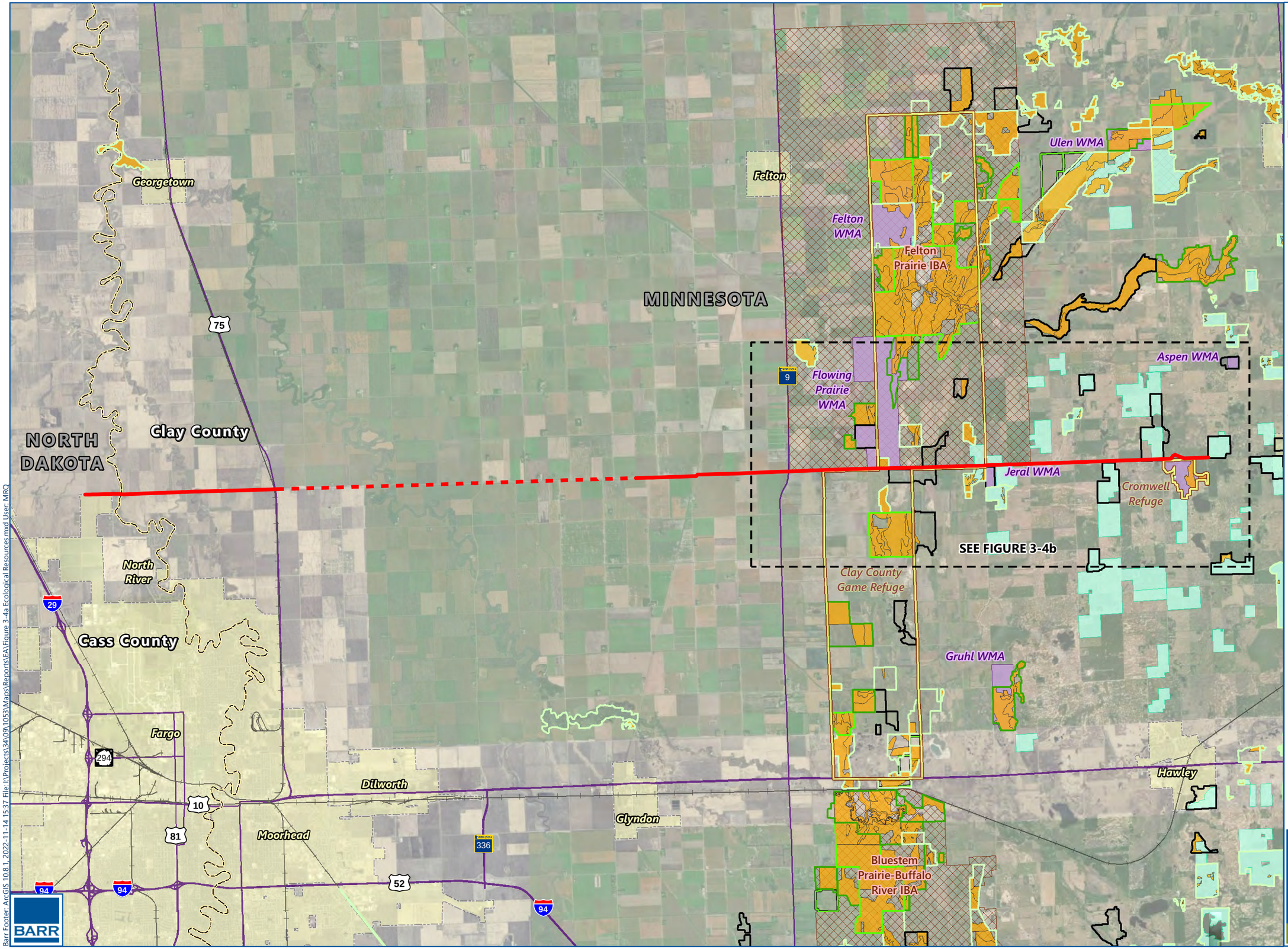
Direct impacts on wildlife residing in the Project Area may occur during construction activities as a result of vehicle movement and ground disturbing activities within the existing ROW. Vehicles and other equipment moving within the ROW could injure or kill individuals, such as small mammals, amphibians, and reptile species, as well as nesting birds. However, current routine maintenance activities in the ROW would pose a similar potential threat to wildlife residing in the ROW.

Potential indirect impacts to wildlife may occur due to temporary habitat loss and displacement. During construction, indirect impacts on wildlife species could occur from increased noise and human activity which could disrupt wildlife species in the vicinity of the Project Area, causing them to temporarily abandon habitat. The majority of common wildlife species are mobile and can leave the affected area or seek refuge within the area to avoid impacts from noise. Extensive similar habitat is present in the vicinity of the Project Area. Impacts to these species are not anticipated to be permanent, as it is anticipated that they would return to the area and resume normal activities after noise-producing activities have ceased.

Potential impacts to groundcover would be minimized by using BMPs, such as using timber mats in wetlands. Erosion control BMPs, such as silt fences, would be used during construction of the rebuild and underbuild portions of the Project to avoid potential impacts to fish inhabiting streams in the vicinity of the Project Area. Following construction, disturbed areas associated with the removal of the existing

structures and burying the distribution line would be graded and revegetated to pre-construction conditions. After construction, vegetation would continue to be controlled according to Minnkota's vegetation management program (reference (11)).

No Action (Alternative A) – Alternative A would result in no change to fish, wildlife, and vegetation in the vicinity of the Project Area.



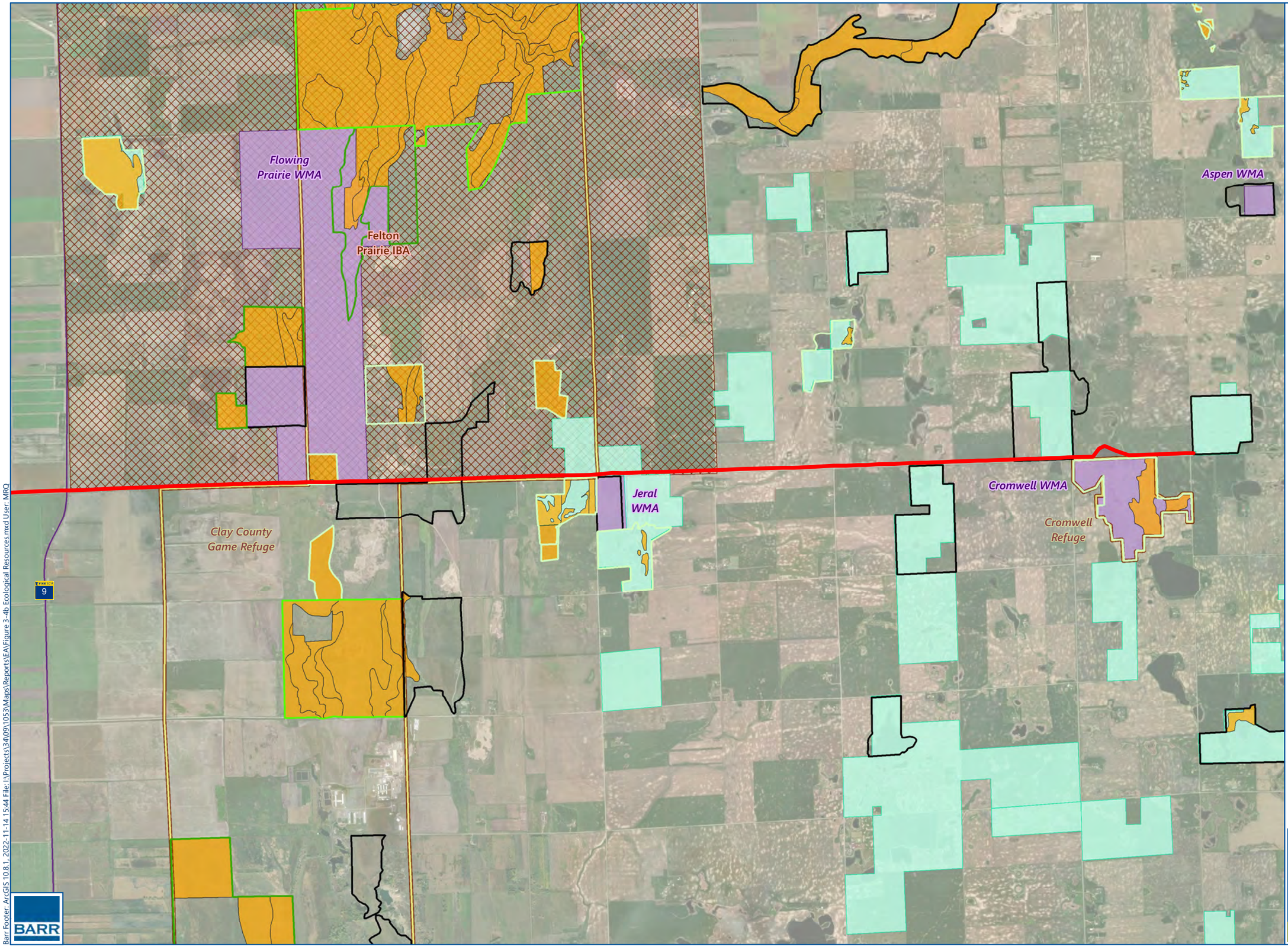
Barr Footer: ArcGIS 10.8.1, 2022-11-14 15:37, File: I:\Projects\34\09\1053\Maps\Reports\EA\Figure 3-4a Ecological Resources.mxd, User: MRQ

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ECOLOGICAL RESOURCES

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 3-4a



Major Highway

Important Bird Area (Global Priority)

State Game Refuge

DNR Native Plant Communities

Waterfowl Production Area

Wildlife Management Area

MN MBS Sites of Biodiversity Significance

Outstanding

High

Moderate

Below

Proposed Project Features

Proposed Above Ground Transmission Alignment

N

0 2,000 4,000

Feet

Imagery: Esri World Imagery

ECOLOGICAL RESOURCES

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 3-4b

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3.6.2 Threatened and Endangered Species

Per Section 7 of the ESA of 1973, as amended, activities conducted, sponsored, or funded by federal agencies must be reviewed for their effects on species federally listed or proposed for listing as threatened or endangered. Per the Minnesota ESA, the MDNR is responsible for overseeing the regulations and permitting for development projects under Minn. Stat. § 84.0895 and associated rules govern the taking (including killing, capturing, collecting, and/ or possessing) of state endangered or threatened species in Minnesota. North Dakota does not have a state-level endangered and threatened species program; as such, there are no legally protected state-level endangered or threatened species.

3.6.2.1 Affected Environment

In accordance with Section 7 of the ESA, the action area, which encompasses the Project Area and all stressors that could result from the action of the Project, was evaluated to determine the potential presence of federally listed species. An official list of federally listed species in the action area was requested through the USFWS online Information, Planning, and Conservation System (IPaC) program on October 19, 2022 (Appendix D). According to the IPaC results, no federally-designated critical habitat is present in the action area; the USFWS defines critical habitat as the habitat necessary to support the special needs of federally threatened or endangered species. IPaC identified one federally listed species as potentially being present within the vicinity of the action area, the northern long-eared bat (*Myotis septentrionalis*; endangered). In addition, IPaC also noted the federal candidate species, the monarch butterfly (*Danaus plexippus*) as potentially being found in the action area. A federal candidate species is a species for which the USFWS has sufficient information to propose listing them as endangered or threatened under the ESA; however, candidate species have no federal protection under the ESA.

Northern long-eared bats roost in living and dead trees greater than 3 inches in diameter that have loose or peeling bark, cavities, or crevices (reference (12)). During winter, the northern long-eared bat hibernates in caves and mines. Suitable forested habitat for northern long-eared bats is present in the action area, such as the forested areas associated with the Red River and the Buffalo River. According to the MDNR and USFWS, there are no known hibernacula or documented roost trees in Clay County, Minnesota (reference (13)). In addition, there are no known occupied roost trees or hibernacula in North Dakota (reference (14)).

Monarch butterflies are found in areas with a high number of flowering plants, which provide sources of nectar. Monarchs rely exclusively on the presence of milkweed (*Asclepias* spp.) to complete the caterpillar life stage (reference (15)). Habitat suitable for monarch butterflies may be present in the non-agricultural parts of the action area.

The MDNR's Natural Heritage Information System (NHIS) database (Barr License Agreement LA-986), was reviewed in October 2022 to determine if any Minnesota state-listed species have been documented within the vicinity of the Project. According to the MDNR NHIS database, four Minnesota endangered species, one of which is federally threatened (Dakota skipper; *Hesperia dacotae*); one Minnesota threatened species, and eight Minnesota special concern species, have been documented within one mile of the Project Area. State special concern species are tracked and monitored by the MDNR; however,

these species are not legally protected under state law. Table 3-1 summarizes the species identified within one mile of the Project Area and their associated habitats.

Table 3-1 MDNR Natural Heritage Information System Database Records within One Mile

Scientific Name	Common Name	Minnesota State Status[1]	Federal Status	Habitat[2]	Habitat in Project Area
Hesperia dacotae	Dakota Skipper	END	Threatened[3]	Native dry-mesic to dry prairie.	No[4]
Hesperia assiniboia	Assiniboia Skipper	END	None	Native dry prairie.	No
Lanius ludovicianus	Loggerhead shrike	END	None	Upland grasslands and sometimes in agricultural areas where short grass vegetation and perching sites such as hedgerows, shrubs, and small trees are found. Small trees and shrubs for nesting.	Yes
Calcarius ornatus	Chestnut-collared Longspur	END	None	Relatively dry, moderately grazed prairie.	Yes
Orobanche uniflora	One-flowered Broomrape	THR	None	Woodlands and bluff prairies.	No[4]
Botrychium campestre	Prairie Moonwort	SPC	None	Dry prairies, dry hill prairies, dry bedrock bluff prairies, and sand-gravel prairies.	No
Botrychium simplex	Least Moonwort	SPC	None	Prairies, wetlands, and abandoned mine sites	Yes
Cypripedium candidum	Small White Lady's-slipper	SPC	None	Deep soil mesic prairies.	No[4]
Gentianella amarella	Felwort	SPC	None	Mesic prairie or wet prairie.	No[4]
Limosa fedoa	Marbled Godwit	SPC	None	Native grasslands with sparse to moderate cover, adjacent to a complex of wetlands.	No
Microtus ochrogaster	Prairie Vole	SPC	None	Grassy areas, particularly ones which have well-drained (dry) soil	Yes
Onychomys leucogaster	Northern Grasshopper Mouse	SPC	None	Sites with gravelly or coarse soils, including active and inactive quarry sites	No

Scientific Name	Common Name	Minnesota State Status[1]	Federal Status	Habitat[2]	Habitat in Project Area
Tympanuchus cupido	Greater Prairie-chicken	SPC	None	Dense, undisturbed cover, is used for nesting. Cropland habitats are used for feeding and loafing. During the summer they favor native prairie and grasslands that have been disturbed by burning, grazing, or haying.	Yes, feeding habitat

[1] END – endangered; THR = threatened; SPC = special concern.
[2] Species habitat information obtained from the MDNR Rare Species Guide (reference (16)).
[3] Species not identified as potentially being present in the Project Area by IPaC.
[4] The prairie habitat that is present in the Project Area consists of a routinely disturbed/maintained ROW and therefore does not contain function as prairie habitat.

3.6.2.2 Environmental Consequences and Mitigation

Alternative B (Proposed Action) – Alternative B would be confined to a previously disturbed transmission line ROW that provides limited high-quality habitat for federal or state threatened or endangered species.

As noted above, suitable forested habitat for northern long-eared bats is present in the action area; however, no known maternity roost trees or hibernacula are known to occur within the vicinity of the action area. As noted in Section 3.6.1, some tree removal would be necessary for Project construction. In order to avoid potential impacts to northern long-eared bats, all tree clearing would occur during the inactive season (between October 1 and April 15). The northern long-eared bat Rangewide Determination Key was completed in IPaC, and a may affect, not likely to adversely affect determination was concluded for the Project. A may affect, not likely to adversely affect consistency letter for the northern long-eared bat determination key finding was requested in IPaC; this letter is provided in Appendix D. Concurrence from the USFWS on this determination was received on July 20, 2023 (Appendix D).

Candidate species such as the monarch butterfly are not legally protected under the ESA. As a result, Project related effects to the monarch butterfly were not assessed as part of this review.

Most of the NHIS records identified in Table 3-1 were documented in the eastern half of the Project Area, within some of the ecological resources identified in Figure 3-4. Impacts within this area would be restricted to replacing existing structures. No NHIS records have been documented within the underbuild portion of the Project, where ground disturbance would occur from burying the distribution line. Habitat in the underbuild area consists of low-quality agricultural habitat, which is not likely to provide suitable habitat for Minnesota state threatened or endangered species.

The loggerhead shrike and the chestnut-collared longspur are the only Minnesota state threatened or endangered species that have suitable habitat in the Project Area. The remaining Minnesota state listed species that have potential habitat in the Project Area are special concern; these species are not legally protected under Minnesota Minn. Stat. § 84.0895 and are not discussed further.

Indirect impacts to loggerhead shrikes and/or chestnut-collared longspur may occur within the Project Area as a result of temporary loss of habitat or displacement during construction activities. However, given that the ROW undergoes routine maintenance for the existing transmission line, any loggerhead shrike or chestnut-collared longspur individuals that reside in the Project Area are likely habituated to human activity and disturbance. Loggerhead shrikes nest in trees and shrubs. As mentioned above in Section 3.6.1, a small number of trees may need to be removed during construction. Potential impacts to loggerhead shrike could be minimized by avoiding tree/shrub removal during the nesting season (April through July). Chestnut-collared longspurs nest on the ground. Potential impacts to chestnut-collared longspurs could be minimized by avoiding ground-disturbing activities in areas of undisturbed grassland/prairie during the nesting season (mid-May to mid-August). See Section 3.6.3.2 for discussion on the potential for avian collision and electrocution and associated minimization measures. Once construction is complete, it is anticipated that loggerhead shrike and chestnut-collared longspur individuals would continue to use any ROW habitat that was used pre-construction.

A Minnesota threatened and endangered species Natural Heritage Review (NHR) request was submitted to the MDNR through the Minnesota Conservation Explorer on December 15, 2022; Project ID 2022-00846. The MDNR provided a NHR response on April 25, 2023 (Appendix E). The MDNR's main recommendations were to minimize potential impacts to the loggerhead shrike by avoiding tree/shrub clearing during the nesting season and minimize potential impacts to chestnut-collared longspur by avoiding ground-disturbing activities in undisturbed grassland/prairie habitat during the nesting season. Minnkota has committed to both of these impact minimization measures. The MDNR NHR also indicated concern about potential impacts to prairie plant Louisiana broomrape. This concern was discussed with the MDNR in a follow-up phone call on May 11, 2023. During this call it was agreed that any prairie habitat in the ROW is routinely disturbed from the existing transmission line ROW maintenance; therefore, it is unlikely to provide habitat suitable for the Louisiana broomrape. An email from the MDNR regarding this discussion is provided in Appendix E.

No Action (Alternative A) – Alternative A would result in no change to federal or state threatened and endangered species in the vicinity of the Project Area.

3.6.3 Migratory Bird Treaty Act

The U.S. Department of Interior—USFWS oversees compliance with the MBTA. The MBTA regulates the taking, selling, transporting, and importing of migratory birds, their nests, eggs, parts, or products.

3.6.3.1 Affected Environment

The states of North Dakota and Minnesota are located in the Central Flyway of North America. The Central Flyway is a bird migration route that encompasses the Great Plains of the U.S. and Canada. Migratory birds use portions of the Central Flyway as resting grounds during spring and fall migration, as well as breeding and nesting grounds throughout the summer. The agricultural landscape and river corridors, combined with the remnants of native vegetation/ecological resources in the vicinity of the Project Area provide habitat for a variety of migratory bird species

As mentioned above, the Project runs along the southern boundary of the Felton Prairie National Audubon Society IBA (Figure 3-4). The Felton Prairie IBA is an assemblage of private prairie land, gravel mining tracts, several WPAs and WMAs, and other ecological resources. A total of 151 species of birds have been recorded in The Felton Prairie IBA. It is important as a preserve for 49 species of birds on the USFWS Birds of Conservation Concern list, including the greater prairie-chicken (reference (17)).

3.6.3.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – As described above for wildlife in general in Section 3.6.1.2, indirect impacts to migratory birds may occur as a result of temporary loss of habitat or displacement during construction activities. However, once construction is over, it is anticipated that migratory birds would continue to use any ROW habitat that was used pre-construction.

Direct impacts to ground nesting migratory birds residing in the Project Area may occur during construction activities, as a result of ground disturbing activities within the existing ROW. However, current routine maintenance activities in the ROW would pose a similar potential threat to ground nesting birds.

Operation of the Project may result in the potential risk of avian collision and electrocution with transmission conductors and equipment, which could result in injury or death of individuals. However, the existing transmission line currently poses a similar threat. Electrocution occurs more frequently with distribution lines than transmission lines, because the conductors are often closer together or closer to grounded hardware on distribution lines. Burying the distribution line in the underbuild portion of the Project would decrease the potential for avian collision and electrocution in that part of the Project Area.

Minnkota's Project design would incorporate BMPs, such as bird flight diverters, to minimize impacts to migratory birds that are consistent with the Avian Powerline Interaction Committee's (APLIC) 2012 guidelines. Minnkota has an Avian Protection Plan consistent with the guidelines developed by APLIC and USFWS (reference (18)).

No Action (Alternative A) – Alternative A would result in no change to migratory birds in the vicinity of the Project Area.

3.6.4 Bald and Golden Eagle Protection Act

Bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) are protected under both the MBTA and the Bald and Golden Eagle Protection Act, which is overseen by the U.S. Department of Interior—USFWS. The BGETA prohibits the "taking" (or disturbing) of bald or golden eagles, including their parts, nests, or eggs, without a permit from the Secretary of the Interior.

3.6.4.1 Affected Environment

Bald eagles typically inhabit forested areas near large lakes or streams. The Red River of the North and Buffalo River corridors provide suitable habitat for bald eagles in the vicinity of the Project. North Dakota Game and Fish (NDGF) indicates that two bald eagle nests are located within the vicinity of the Project Area; however, both are located over one-half mile from the Project Area.

Golden eagles inhabit open country in the vicinity of hills, cliffs, and bluffs; they are known to be sensitive to human activity and typically avoid developed areas. Golden eagles are not known to breed in Minnesota and generally only breed in the western half of North Dakota. Suitable habitat for golden eagles is not present in the Project Area.

3.6.4.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – Given lack of suitable habitat, Alternative B is not anticipated to directly or indirectly impact golden eagles. Alternative B is not anticipated to result in direct impacts to bald eagles. The construction activities would be temporary and confined to a previously disturbed ROW that provides limited habitat to bald eagles.

Noise from construction activities could result in temporary indirect impacts on bald eagles, should any reside in the vicinity of the Project. Any bald eagles near the Project Area may temporarily abandon their habitat during Project construction. However, it is anticipated that they would return to the area and resume normal activities after construction activities have ceased.

Potential impacts to bald eagles would be minimized by maintaining a half mile buffer between Project activities and any active nests. If construction or disturbance must be performed closer than a half mile from an active nest, activity would be restricted to outside the nesting season (i.e., August through mid-January). See Section 3.6.3.2 for discussion on the potential for avian collision and electrocution and associated minimization measures.

No Action (Alternative A) – – Alternative A would result in no change to bald or golden eagles in the vicinity of the Project Area.

3.6.5 Invasive Species

The following sections describes invasive plant and animal species, potential impacts to the environment resulting from each Project alternative, and mitigation measures for prevent the spread of invasive species.

3.6.5.1 Affected Environment

Both aquatic invasives and invasive terrestrial plant species are defined and considered in the following sections.

Aquatic Invasives

Aquatic invasive species are non-native plants, animals and other organisms that are not native to the ecosystem they inhabit. Common aquatic invasive species in North Dakota and Minnesota include curly leaf pondweed (*Potamogeton crispus*), Eurasian watermilfoil (*Myriophyllum spicatum),* flowering rush (*Butomus umbellatus*), bighead carp (*Hypophthalmichthys nobilis*), common carp (*Cyprinus carpio*), grass carp (*Ctenopharyngodon idella*), silver carp (*Hypophthalmichthys molitrix*), and zebra mussels (*Dreissena polymorpha*).

The NDGF tracks infested waters in North Dakota. According to the NDGF, the Sheyenne River and Red River are listed as infested waters. The Sheyenne River is known to contain curly leaf pondweed, Eurasian watermilfoil, flowering rush, and zebra mussels. The Sheyenne River is located outside of the Project Area; however, the river is directly connected to the Red River, which flows through the Project Area. In addition, zebra mussels are also known to inhabit the Red River (reference (19)).

The MDNR maintains a list of all lakes, rivers, ponds, or wetlands that are known to contain an aquatic invasive species that could spread to other waters. The MDNR has identified one infested water withing the Project Area, the Red River. The Red River is listed as infested with zebra mussels (reference) (20)).

Noxious Plants

North Dakota law (North Dakota's Century Code § 4.1-47-02) includes provisions to control the spread of invasive plant species or noxious weeds. The North Dakota Department of Agriculture (NDDA) coordinates the efforts of county and city weed boards and state and federal land managers to implement integrated weed-management programs. According to the NDDA, there are 13 state noxious weeds that are enforced by all cities and counties in North Dakota (Table 3-2) (reference (21)). Some counties and cities include additional weeds to enforce in their jurisdiction; however, Cass County does not (reference (22)).

Table 3-2 North Dakota Noxious Weeds

Common Name	Scientific Name
Absinth Wormwood	*Artemisia absinthium L.*
Canada Thistle	*Cirsium arvense*
Dalmatian Toadflax	*Linaria genistifolia spp. Dalmatica*
Diffuse Knapweed	*Centaurea diffusa Lam.*
Houndstongue	*Cynoglossum officinale L.*
Leafy Spurge	*Euphorbia esula L.*
Musk Thistle	*Carduus nutans L.*
Palmer amaranth	*Amaranthus palmeri*
Purple Loosestrife	*Lythrum salicaria L., Lythrum virgatum L., and all cultivars*
Russian Knapweed	*Centaurea repens L.*
Saltcedar	*Tamarisk spp.*
Spotted Knapweed	*Centaurea maculosa Lam.*
Yellow Toadflax	*Linaria vulgaris*

The Minnesota Department of Agriculture regulates noxious weeds within Minnesota. There are two regulatory listings for prohibited noxious weeds in Minnesota.

1. prohibited-eradicate noxious weeds - noxious weeds that must be eradicated on all lands within the state.

2. prohibited control noxious weeds - noxious weeds that must be controlled on all lands within the state.

There are 29 prohibited-eradicate and prohibited control species listed in the state of Minnesota (Table 3-3). In addition to the statewide listed noxious weeds designated by the Minnesota Department of Agriculture, bull thistle (*Cirsium vulgare*), kochia (*Bassia scoparia L.*), and musk thistle (*Carduus nutans*), have been approved for listing by the Clay County Board of Commissioners as County-Listed Noxious Weeds in Clay County, as permitted by Minnesota Statutes §18.79, Subds. 13 and 14 (reference (23)).

Table 3-3 Minnesota Noxious Weeds

Common Name	Scientific Name	Prohibited Eradicate	Prohibited Control
Black swallow-wort	*Cyanchum louiseae Kartesz & Gandhi*	X	
Bohemian knotweed	*Polygonum x bohemicum (J. Chrtek & Chrtkova) Zika & Jacobson*		X
Brown knapweed	*Centaurea jacea L.*	X	
Canada thistle	*Cirsium arvense (L.) Scop.*		X
Common barberry	*Berberis vulgaris L.*		X
Common tansy	*Tanacetum vulgare L.*		X
Common teasel	*Dipsacus fullonum L.*	X	
Cutleaf teasel	*Dipsacus laciniatus L.*	X	
Dalmatian toadflax	*Linaria dalmatica (L.) Mill*	X	
Diffuse knapweed	*Centaurea diffusa L.*	X	
Giant hogweed	*Heracleum mantegazzianum Sommier & Levier*	X	
Giant knotweed	*Polygonum sachalinese F. Schmidt ex Maxim*		X
Grecian foxglove	*Digitalis lanata Ehrh.*	X	
Japanese honeysuckle (and all cultivars)	*Lonicera japonica Thunb.*	X	
Japanese hops	*Humulus japonicus Siebold & Zucc.*	X	
Japanese knotweed	*Polygonum cuspidatum Seibold & Zucc.*		X
Leafy spurge	*Euphorbia esula L.*		X
Meadow knapweed	*Centaurea x moncktonii C.E. Britton*	X	
Narrowleaf bittercress	*Cardamine impatiens L.*		X

Common Name	Scientific Name	Prohibited Eradicate	Prohibited Control
Non-native phragmites	*Phragmites australis (Cav.) Trin ex Steud. ssp. australis*		X
Oriental bittersweet	*Celastrus orbiculatus Thunb.*	X	
Palmer amaranth	*Amaranthus palmeri S. Watson*	X	
Plumeless thistle	*Carduus acanthoides L.*		X
Poison hemlock	*Conium maculatum L.*	X	
Purple loosestrife	*Lythrum salicaria L.*		X
Spotted knapweed	*Centaurea stoebe L. ssp. micranthos (Gugler) Hayek*		X
Tree of heaven	*Ailanthus altissima (Mill.) Swingle*	X	
Wild parsnip	*Pastinaca sativa L. (except for non-wild cultivated varieties)*		X
Yellow starthistle	*Centaurea solstitialis L.*	X	

3.6.5.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B): Effects resulting from Alternative B are broken down by aquatic invasives and noxious plants, as follows.

Aquatic Invasive Species

The proposed transmission line rebuild would be installed over the Red River. Construction equipment would not be placed within waters listed as infested by the NDGF and MDNR. If construction equipment comes in contact with the Red River the equipment would be cleaned of all aquatic plants, zebra mussels, or other invasive species. After being cleaned the equipment will be visually inspected to ensure all material has been removed.

Noxious Plants

Project activities associated with the construction of Alternative B could result in the spread of invasive plant species or noxious weeds through disturbance of soil or movement of construction equipment in and out of the Project Area. During operation the increased traffic in and out of the Project Area could also result in the spread of invasive plant species or noxious weeds.

Reseeding any disturbed soil promptly with agricultural or native species would minimize the potential spread of invasive plant species or noxious weeds. In addition, BMPs such as cleaning vehicles and construction equipment would further reduce the potential for spread and establishment of invasive plant species and noxious weeds. Application of pesticides or herbicides could also be used to manage the spread of invasive plant species and noxious weeds associated with Project construction.

No Action (Alternative A) – Alternative A would result in no changes to the spread of invasive species or noxious weeds.

3.7 Historic and Cultural Properties

Section 106 of the NHPA of 1966, as amended, requires that federally funded projects be evaluated for the effects on historic and cultural properties included or eligible for listing on the National Register of Historic Places (NRHP). The Archaeological and Historic Preservation Act of 1974 provides for the survey, recovery, and preservation of significant scientific, prehistoric, archaeological, or paleontological data when such data may be destroyed or irreparably lost due to a federal, federally licensed, or federally funded project.

3.7.1 Affected Environment

Commonwealth Heritage Group (Commonwealth), also doing business as Paleowest, completed a Phase Ia cultural resources literature review of the Project in December 2021 (reference (24)). The literature review included data available through the Minnesota State Historic Preservation Office (SHPO), State Historical Society of North Dakota, and Minnesota's Office of the State Archaeologist. The national and state registers of historic places, historical land ownership plats, Light Detection and Ranging (LiDAR) imagery, historic and modern aerial imagery, and other historical maps were also reviewed to gain an understanding of the use of the Project Area through time. As a result of their research, Commonwealth identified 14 previously recorded archaeological sites, one previously recorded alpha site, six previously identified cemeteries, and 19 above-ground architectural/historic resources within one-mile of the Project.

Three previously identified resources consisting of the alpha site and two cemetery sites intersect the Project centerline.

Through their review of satellite imagery as part of the literature review, Commonwealth determined that the alpha site and the two cemetery sites within the Project Area will not be impacted by the proposed Project.

The Phase Ia literature review identified 19 historic architectural resources within one mile of the Project, including three resources that intersect the Project (reference (24)). Each of these resources are recommended not eligible for the NRHP (reference (24)).

In October 2022, Commonwealth completed a Phase I archaeological reconnaissance for the 8-mile portion of the underbuild that will be buried as a result of the Project. No archaeological resources were identified during the archaeological reconnaissance; therefore, Commonwealth recommended no additional work for the Project to proceed as planned (reference (25)).

Coordination between USDA-RUS and the Minnesota SHPO determined that the area of potential effects (APE) for the Project is a quarter-mile radius surrounding the proposed rebuild. The USDA-RUS requested a historic architectural survey for aboveground resources in the APE to determine whether any might be eligible for the NRHP.

Commonwealth completed a Phase I historic/architectural reconnaissance throughout the APE in February 2023. As a result of this investigation, 33 previously uninventoried properties of historic age were identified and evaluated in Minnesota, and two previously surveyed properties were re-investigated (reference (26)). In North Dakota, no previously documented above-ground architectural/historic resources were identified within the APE. Six properties (eight total structures) of historic age were identified within the APE and subsequently documented (reference (27)). None of the newly identified properties are recommended eligible for the NRHP.

3.7.2 Environmental Consequences and Mitigation

Alternative B (Proposed Action) – Under Alternative B, the Project would not affect cultural resources. In proximity to the previously identified cultural resources, Minnkota would replace the transmission line poles in-kind, with no new ground disturbance. As a result, the transmission line rebuild would span the alpha site and the extant cemetery site. In addition, Minnkota would use available geospatial data to physically delineate the alpha site boundary in the field and would physically delineate the extant cemetery boundary in the field to ensure both would be avoided during Project construction. The Phase I found no new archaeological resources within the portion of the Project where the underbuild will be buried. A Phase I historic architectural reconnaissance completed for the Project found no NRHP-listed or eligible properties within the APE.

On July 17, 2023, USDA RUS submitted documentation to 14 Native American tribes with ancestral ties to the Project area: the Apache Tribe of Oklahoma; Cheyenne and Arapaho Tribes, Oklahoma; Flandreau Santee Sioux Tribe of South Dakota; Fort Belknap Indian Community of the Fort Belknap Reservation of Montana; Lac Vieux Desert Band of Lake Superior Chippewa Indians of Michigan; Leech Lake Band of the Minnesota Chippewa Tribe; Lower Sioux Indian Community in the State of Minnesota; Menominee Indian Tribe of Wisconsin; Prairie Island Indian Community in the State of Minnesota; Santee Sioux Nation, Nebraska; Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota; Spirit Lake Tribe, North Dakota; Upper Sioux Community, Minnesota; and White Earth Band of Minnesota Chippewa. Two responses were received.

On July 17, 2023 Ms. Sara Childers responded via email on behalf of the Flandreau Santee Sioux Tribe of South Dakota Tribal Historic Preservation Officer (THPO) Mr. Garrie Kills-A-Hundred, stating that they would want a tribal monitor on site in the area the archaeological sites are located. Minnkota responded on July 17, 2023 also via email to request additional information regarding the sites that the Flandreau Santee Sioux Tribe of South Dakota would like to monitor, since none were identified during the Phase I investigation, and no response was received. On August 8, 2023 the Spirit Lake Tribe THPO responded via letter indicating that while no cultural resources should be adversely affected by the undertaking, the area surrounding the project was heavily used in prehistoric times; therefore, project activities must be restricted to the areas designated in the archaeological survey. They also requested to be notified if cultural resources are identified during construction. No other responses from the tribes were received.

Also on July 17, 2023, USDA RUS submitted documentation to the North Dakota SHPO and the Minnesota SHPO supporting a finding of No Historic Properties Affected for the Project. Correspondence received

from the North Dakota SHPO on September 25, 2023 stated that the agency concurs with a determination of "No Historic Properties Affected" for the Project, provided it takes place in the location and in the manner described in the documentation and provided all borrow material comes from an approved source. Correspondence received from the Minnesota SHPO on October 12, 2023 stated that the project will have no effect on properties listed in or eligible for the NRHP. Therefore, the Project would not affect cultural resources and mitigation would not be required. Agency and tribal coordination regarding Section 106 is on file with the RUS.

No Action (Alternative A) –Alternative A would not affect cultural resources.

3.8 Aesthetics and Visual Resources

The aesthetic and visual resources of a landscape are defined as the existing natural and built features visible to the public which affect the visual quality and character of an area. This section discusses the existing aesthetic and visual resources visible from areas where the Project is likely to be within view, referred to as the "viewshed." The size of the Project viewshed varies based on location. Projects in open areas would have a more expansive viewshed, as they are free of visual obstructions. Conversely, projects located in urban and residential areas may have a smaller viewshed, due to the presence of visual obstructions from trees and buildings.

3.8.1 Affected Environment

In order to gauge how the aesthetics of the landscape could be affected by the Project, it is valuable to first assess the character of the existing landscape. A landscape's character is largely influenced by topography, vegetation, and water resources. The Project is within what is defined as the Glacial Lake Agassiz Basin in North Dakota and the Red River Prairie Subsection in Minnesota (references (28); (8)). Both are defined by Glacial Lake Agassiz, and the landscape consists of thick, lacustrine sediments underlain by glacial till. The topography is generally flat, and while vegetation is primarily agricultural now, pre-settlement it consisted predominantly of tallgrass prairie (references (28); (8)). The viewshed of the Project consists of agricultural fields, primarily row crops, grasslands, pastures, and hay fields. The viewshed of the Project is generally unimpeded, because of a lack of visual obstructions and the subtle topography.

The visual character of a landscape is also largely influenced by the presence of the built environment, such as residential, commercial, and municipal buildings, transportation infrastructure, overhead transmission lines, and industrial features. The built environment is mainly rural and sparsely populated, with approximately one to two residences/farmsteads every linear mile.

3.8.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – Under Alternative B, limited changes to the viewshed, aesthetics, and/or visual resources would occur. The Project consists of rebuilding an existing transmission line; therefore, visual impacts resulting from the transmission line are extant within the Project Area. Poles being used for the rebuild will be approximately 20 feet taller than the existing poles; on average poles will increase from

50 feet in height to 70 feet in height. As a result, the transmission line may be slightly more visible from further distances; however, no change in viewshed is anticipated as a result of the Project.

No Action (Alternative A) –Alternative A would result in no changes to the viewshed, aesthetics, and/or visual resources in the Project Area.

3.9 Air Quality

This section describes the overall air quality within the Project Area, with an analysis of how the Project could impact the air quality status along with potential mitigation measures.

3.9.1 Affected Environment

Air quality standards for the Project Area within North Dakota are regulated by the North Dakota Department of Environmental Quality (NDDEQ) Air Quality Division. The NDDEQ Air Quality Monitoring branch monitors the ambient air quality throughout North Dakota. The Fargo Northwest Air Monitoring Station, located approximately 3 miles south in Fargo, North Dakota, is the closest North Dakota-based monitoring station to the Project Area. The monitoring station tests air quality for carbon monoxide, nitrogen dioxide, ozone, particulate matter less than 10 and 2.5 microns) (PM_{10}, $PM_{2.5,}$), and sulfur dioxide. Neither the state nor federal ambient air quality standards were exceeded for any of the tested pollutants in 2021 (reference (29)). The Project Area is not located within an Environmental Protection Agency nonattainment or maintenance area for criteria pollutants (reference (30); therefore, no conformity evaluation is required.

Air quality standards for the Project Area within Minnesota are regulated by the Minnesota Pollution Control Agency (MPCA). The MPCA monitors the ambient air throughout the state on Minnesota through a network of 56 air monitoring sites. The nearest Minnesota monitoring site is located approximately 22 miles southeast of the Project Area in Detroit Lakes, Minnesota. The monitoring station tests air quality for carbon monoxide, nitrogen dioxide, ground-level ozone, PM_{10}, $PM_{2.5}$, and sulfur dioxide. The MPCA 2022 Annual Monitoring Network Plan reported that the entire state of Minnesota is in compliance with National Ambient Air Quality Standards and the Minnesota Ambient Air Quality Standards (reference (31)).

The 1990 Clean Air Act has designated specific areas within Minnesota as Federal Class I areas which require special attention in regard to protecting and improving the air quality in these designated areas. Minnesota contains two Federal Class I areas, Voyagers National Park and Boundary Waters Canoe Area Wilderness Area. Both designated areas are located more than 190 miles from the Project Area.

3.9.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) - Construction and operation of Alternative B would result in direct emissions of criteria air pollutants and greenhouse gasses. These emissions would result in minor, primarily localized impacts.

Construction activities would temporarily increase air emissions because of the combustion of fossil fuels in construction equipment and vehicles, and from the fugitive dust emissions associated with ground

disturbance. These temporary air quality effects would last only for the duration of construction. Overall, impacts to air quality in the Project Area are anticipated to be minimal, and mitigation would not be required.

Alternative A (No Build) – Alternative A would result in no changes to air quality.

3.10 Socio-Economic Impact Assessment and Environmental Justice

Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and the enforcement of environmental laws, regulations, and policies. In accordance with EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994), this section evaluates environmental justice with respect to the Project. EO 12898 requires federal agencies to identify and address disproportionately high and adverse health or environmental effects of its programs, policies, and activities on minority and low-income populations.

3.10.1 Affected Environment

The western end of the Project Area is located in unincorporated Cass County directly adjacent to Fargo, North Dakota; however, the majority of the Project is located in unincorporated Clay County approximately 2 miles north of Moorhead, Minnesota. Cass County is the most populous county in North Dakota and accounts for approximately 24% of the state's population (Table 3-4). Clay County is Minnesota's 16th most populous County, accounting for 1.1% of the state's population.

Table 3-4 Population

Location	Population in 2020	% of State Population
Minnesota [1]	**5,600,166**	**N/A**
Clay County[2]	64,029	1.1%
North Dakota[3]	**760,394**	**N/A**
Cass County[4]	179,937	24%

[1] reference (32)
[2] reference (33)
[3] reference (34)
[4] reference (35)

The Project's environmental justice analysis compared demographic and income data for Cass County and Clay County to larger North Dakota and Minnesota populations. Demographics for each of these locations is provided in Table 3-5. According to the 2020 population estimates, Minnesota has the highest percent minority population of 12% followed by North Dakota (10%), Cass County (10%), and Clay County (7%). The U.S. Environmental Protection Agency's environmental justice guidance specifies two measures to determine whether there is a minority or low-income community in the Project impact area that must be considered in the scope of this document (reference (36)).

- Minorities or low-income persons make up more than 50% of the population of the impact area.
- The minority or low-income percentage of the impact area is "meaningfully greater" than the minority or low-income population in the general population.

Low income populations (defined as individuals living in households below the poverty threshold) in Minnesota, Clay County, North Dakota, and Cass County are provided in Table 3-6. Clay County has the highest percentage of the population living below the poverty threshold compared to Minnesota, North Dakota, and Cass County. Clay County also has a higher median household income than Cass County and North Dakota.

Table 3-5 Minority Population Composition Comparison with the Region of Interest

			Racial Minority Populations (%)[1]						Ethnic Minority (%)[2]
Area	Total Population (Number of persons; 2020)	White	Black or African American	American Indian & Alaska Native	Asian	Native Hawaiian & other Pacific Islander	Some Other Race	Total Racial Minority	Hispanic or Latino
Minnesota[3]	5,600,166	4,422,490	354,540	48,409	273,100	1,905	17,494	695,448 (12%)	307,675
Clay County[4]	64,029	55,375	2,508	916	892	123	0	4,439 (7%)	2,976
North Dakota[5]	760,394	636,284	23,459	37,170	11,831	983	1,220	74,663 (10%)	30,325
Cass County[6]	179,937	152,179	10,821	1,385	5,800	46	297	18,349 (10%)	5,042

Notes: Person may opt to identify with more than one racial minority, therefore the sum of all racial categories in the table may equal more than 1000%.

[1] Total racial minority populations and white populations may not add up to 100 % as not all racial minority populations were included in the analysis. Racial minority population that were excluded were the small sub-classifications such as those of two or more races.

[2] The Hispanic or Latino ethnicity is not included in the total racial minority population percentages as it can be claimed by a person of any race. The Hispanic or Latino ethnicity is therefore included separately and reflects and ethnic minority.

[3] reference (32)

[4] reference (33)

[5] reference (34)

[6] reference (35)

Table 3-6 Poverty and Income Characteristics

Jurisdiction	Total Population (number of persons)	% Below Poverty Threshold	Median Household Income
Minnesota [1]	**5,600,166**	**9.3**	**$73,382**
Clay County[2]	64,029	13.0	$66,069
North Dakota[3]	**760,394**	**10.5**	**$65,315**
Cass County[4]	179,937	10.6	$65,976

[1] reference (32)
[2] reference (33)
[3] reference (34)
[4] reference (35)

3.10.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – Overall, demographic data indicates that the distribution of minority populations in the Project Area does not meet the criteria to qualify as low income or minority populations. Therefore, it is not anticipated the Project would adversely affect low income or minority populations The Project would improve energy transmission in the surrounding communities thereby positively affecting all members of the community regardless of socioeconomic status or ethnicity.

Alternative A (No Build) – Alternative A would result in no changes to the socioeconomic and environmental justice conditions of the surrounding area.

3.11 Noise

Noise is defined as any unwanted sound disruptive to hearing. Noise can include a variety of intensities across the frequency spectrum and is measured in units of decibels on a logarithmic scale.

Transmission lines can produce noise under certain conditions, the level of noise produced is dependent on surrounding weather conditions, conductor condition, and the voltage level of the lines. Typically, any noise produced by transmission lines is not discernable from the ambient noise levels outside of the ROW. A crackling sound is sometimes produced by transmission lines during foggy or rainy weather, but the background noise produced by the rain is often greater than the noise produced by the lines, causing the sound from the lines to not be heard.

3.11.1 Affected Environment

The Project is located in a rural setting consisting of primarily low density residential and farmland areas. Several rural residences are located directly adjacent to the Project. Primary noise sources in the area include local traffic and noise from farming practices. There are no noise ordinances for the Project Area.

3.11.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – Alternative B would result in direct noise impacts during Project construction in the form of temporary, localized noise from heavy equipment and increased vehicle traffic

during daytime work hours. Noise levels would be temporarily increased from heavy duty equipment commonly used for construction occurring along with the typical noise levels from common activities in the area. Residences immediately adjacent to the construction area would experience the greatest level of noise disturbance; however, the noise would be intermittent and levels would decrease as construction moved along the corridor. Overall, effects of noise on adjacent residences during construction is anticipated to be minor, localized, and temporary. Mitigation is not anticipated for the overall minimal noise generated by Alternative B.

Alternative A (No Build) – Alternative A would result in no changes to the ambient noise levels of the surrounding area.

3.12 Transportation

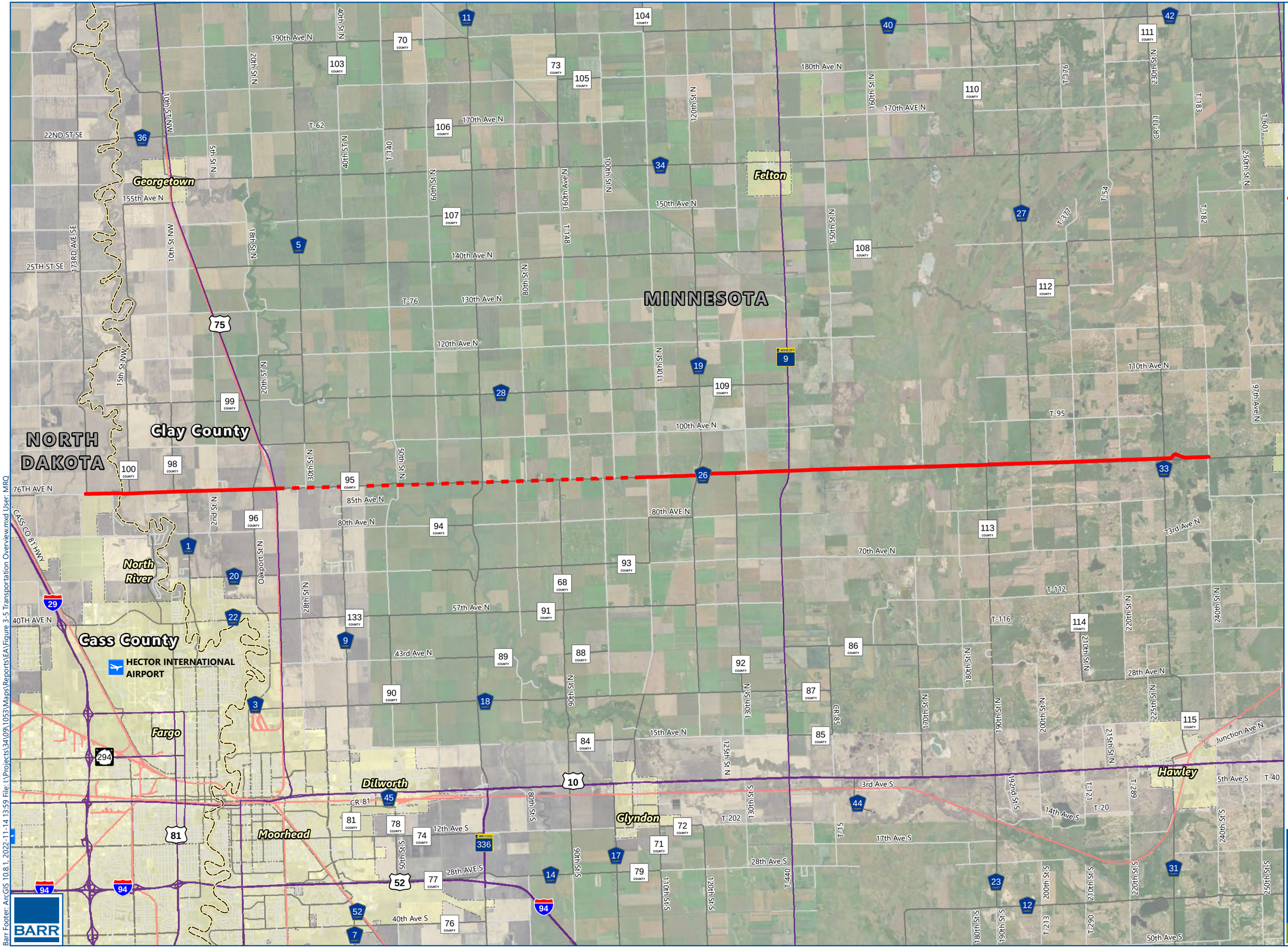
This section describes traffic and transportation networks and facilities in the Project Area, and the potential impacts of the Project on those networks and facilities. Facilities examined include roads, railroads, and airports.

3.12.1 Affected Environment

The Project Area is defined as an approximately 25-mile long, 80-foot wide existing ROW corridor located adjacent to Minnesota Highway 26, running from Maple River, North Dakota to Buffalo, Minnesota, approximately. Minnesota Highway 26 is classified as a major collector, a roadway that connects large traffic generators to the arterial roadway network. The Project intersects with US Highway 75 and Minnesota Highway 9, along with several other rural roadways (reference (37)). The west end of the Project is approximately 2 miles from I-29 and the east edge of the Project is approximately 2 miles from Minnesota Highway 32. There are two bridges that cross rivers within the Project Area: one over the Red River in North Dakota and one over the Buffalo River in Minnesota (Figure 3-5).

The Burlington Northern Santa Fe (BNSF) is a class I commercial railway that crosses the Project Area at the intersection of US Highway 75 and Minnesota Highway Hwy 26. This BNSF mainline runs north-to-south across Minnesota, starting at the Canadian border and extending into Fargo, North Dakota, where it combines with multiple other BNSF lines that span North Dakota and Minnesota (Figure 3-5). Freight traffic is primarily comprised of intermodal and grain freight, drilling supplies for the western North Dakota oil fields, and oil shipments to refineries in the southern United States (reference (38)).

The nearest airport is the Hector International Airport, located approximately 3 miles south of the Project Area in Fargo, North Dakota (Figure 3-5).



County Boundary
Municipality
Airport
Major Highway
Railroad

Proposed Project Features

Proposed Above Ground Transmission Alignment

Proposed Underbuild Transmission Alignment

0 1 2
Miles

Imagery: Esri World Imagery

TRANSPORTATION OVERVIEW
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 3-5

BARR

Barr Footer: ArcGIS 10.8.1, 2022-11-14 13:59 File: I:\Projects\3A\09\1053\Maps\Reports\EA\Figure 3-5 Transportation Overview.mxd User: MRO

3.12.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – Alternative B would have minor impacts to traffic patterns on Minnesota Highway 26, which parallels the Project. However, construction work and staging would take place within the existing transmission line ROW. As such, a detour for vehicular traffic in this area is not anticipated and the roadway would remain open during construction. Minor delays to regular traffic patterns may occur due to construction equipment accessing the ROW. Alternative B will not impede travel on the Red River of the North, a navigable waterway. The new line will have approximately 54 feet of vertical clearance at approximately 14.45 gauge feet, which is four feet higher than the existing line that currently crosses the river.

Alternative B is not anticipated to have any impact on railways or aviation. The Project does not meet the requirements for providing notice to the Federal Aviation Administration (FAA). Although Hector International Airport is less than three miles south of the Project, the closest runway at Hector International Airport is approximately 16,000 feet south of the transmission line crossing at the Red River of the North; therefore, under FAA statute 77.9(b)(1), the pole replacements would need to be 160 feet tall to qualify for notice. Because the replacement poles will be up to 80 feet in height, even when factoring in the additional vertical clearance required to cross the Red River of the North, the Project is under the threshold for FAA notification.

Alternative A (No Build) – Alternative A would result in no changes to the transportation resources in the surrounding area.

3.13 Human Health and Safety

This section discusses the potential human health and safety effects from Project alternatives, specifically with respect to electromagnetic fields (EMF)/interference and environmental risk management as directed in RD Instruction 1970-C.

The nearest hospital, the Sanford Medical Center, is located in Fargo approximately 10 miles southeast of the Project Area. The Cass County Law Enforcement Center, located in Fargo, provides public safety, and fire protection is provided by the Fargo Fire Department.

3.13.1 Electromagnetic Fields and Interference

Wherever there is electricity there are EMF. EMFs are created by high-voltage transmission and distribution lines, but also by the appliances, lights, and wiring in homes, businesses, and schools. As a result, people are regularly exposed to a complex mix of electric and magnetic fields at many different frequencies. Electromagnetic interference is an electrical disruption of an operation for an electronic device. Interference is caused by EMF created by normal operation of a system interfering with a different electronic system.

EMFs are invisible just like radio, television, and cellular phone signals, all of which are part of the electromagnetic spectrum. Natural and human-made EMFs are present everywhere in our environment.

3.13.1.1 Affected Environment

During construction of the Project, the potential exists for EMFs to be generated. The strength of the EMF is proportional to the amount of electrical current passing through a power connection (i.e., distribution line).

3.13.1.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – Implementation of Alternative B would perpetuate existing EMF and interference potential by replacing the existing overhead 69kV transmission line with new overhead lines and underground distribution lines of equal voltage. The Project Area is located adjacent to primarily agricultural land, with no residences in the immediate vicinity. Since the voltage of the transmission lines is remaining the same and portions of the overhead line will be replaced with underground distribution lines, changes in EMF potential are not anticipated. With the implementation of the underground distribution line, the potential for EMF may be decreased. Potential public-health effects of EMFs are not expected from the Project and no mitigation measures are needed.

No Action (Alternative A) – Alternative A would result in no changes to EMF or interference.

3.13.2 Environmental Risk Management

Environmental risk management is the analysis of various resources to identify the potential of encountering anything that could have a negative or harmful impact to the natural, human, or socioeconomic environment.

3.13.2.1 Affected Environment

A desktop review of potential for any environmental hazards in or adjacent to the Project Area was completed on September 22, 2022. Environmental hazards that have the potential for negative impacts include current or historical landfills, brownfield sites, storage tanks, reported spills, and hazardous waste. According to the NDDEQ, there are no municipal solid waste facilities, special waste landfills, or underground storage tanks located within the portion of the Project Area in North Dakota. According to the MPCA, there are no municipal solid waste facilities, special waste landfills, or underground storage tanks located within the portion of the Project in Minnesota.

3.13.2.2 Environmental Consequences and Mitigation

Proposed Action (Alternative B) – The potential for Alternative B to pose environmental risks to the surrounding area is anticipated to be low. Minnkota would be responsible for storing fuels, oils, and lubricants needed during construction in a protected manner away from surface waters. No indications of releases or contamination were observed within the Project Area, and the risk of a release of environmental contamination due to Alternative B is unlikely due to material storage measures that would be implemented during construction; as such, environmental risks are not anticipated.

No Action (Alternative A) – Alternative A would result in no changes to environmental risks.

3.14 Corridor Analysis

The Project Area is an approximately 25-mile long, 80-foot wide ROW corridor located adjacent to Minnesota Highway 26 from Maple River, North Dakota to Buffalo, Minnesota. Since this is an existing ROW corridor, it has already been analyzed for existing transmission line construction, and additional corridor analysis is not needed for the Project.

4 Cumulative Effects

Cumulative effects result from incremental consequences of an action "when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions" (40 CFR 1508.7). The effects of an action may be minor when evaluated in an individual context, but these effects can add to other disturbances and collectively may lead to a measurable environmental change. By evaluating the effects of the Project with the effects of other actions, the relative contribution of the Project to a projected cumulative effect can be estimated.

The geographic area with which cumulative effects were assessed for the Project includes a one-mile boundary around the Project Area. Cumulative effects were assessed for projects that may occur within the next five years.

Past actions, including installation of the existing transmission line and construction of North Dakota Highway 22 and Minnesota Highway 26, have contributed to the Project Area's existing landscape and no other present actions have been identified within the geographic area.

According to the Cass County Highway Department, no projects are proposed over the next five years within one mile of the Project Area in North Dakota (reference (39)).

The Clay County Highway Department is currently undergoing two projects within one mile of Project Area; a bridge replacement project on 85th Ave NW over an unnamed tributary to the Red River and a road grading project from Minnesota Highway 20 to Minnesota Highway 26. Both projects would be completed in 2022 before construction of this Project has started. Two additional projects are planned within one mile of the Project Area over the next five years. In 2024 the Clay County Highway Department plans to resurface Highway 26 from Highway 75th North to 120th street North. In addition, the Clay County Highway Department plans to resurface Minnesota Highway 26 to the North Dakota state line in 2025 (reference (40)). No road widening or realignment projects are proposed within one mile of the Project Area.

Table 4-1 summarizes the potential effects of the Project and whether these effects could combine with future development to result in cumulative effects. It is not anticipated that the temporary effects identified in Table 4-1 would interact with future roadway resurfacing projects or bridge reconstruction projects that would result in incremental consequences with the Project Area.

Table 4-1 Summary of Project Effects and Potential Cumulative Effects

Resource	Alternative B Effects	Potential for Cumulative Effects
Land Use/Land Ownership	No effects anticipated.	No potential cumulative effects are anticipated.
Water Resources and Floodplains	Temporary disturbance of groundcover and soil in floodplains during construction.	No potential cumulative effects are anticipated.
Wetlands	Temporary disturbance of groundcover and soil in wetlands during construction.	No potential cumulative effects are anticipated.
Cultural Resources	No effects anticipated	No potential cumulative effects are anticipated.
Aesthetics and Visual Resources	Permanent disturbance in the viewshed from the replacement of the transmission line.	No potential cumulative effects are anticipated.
General Fish, Wildlife and Vegetation	Temporary disturbance of groundcover and soil and loss of potential habitat during construction.	No potential cumulative effects are anticipated.
Threatened and Endangered Species	Temporary loss of habitat during construction. Potential direct or indirect impacts to loggerhead shrikes and/or chestnut-collared longspurs if nesting in the vicinity of the Project Area during construction. However suitable habitat would be avoided for each species during their respective nesting seasons.	No potential cumulative effects are anticipated.
Migratory Birds	Temporary loss of habitat during construction. Potential direct or indirect impacts to migratory birds if nesting in the vicinity of the Project Area during construction. Continued risk of avian collision and electrocution.	No potential cumulative effects are anticipated.
Bald and Golden Eagles	Temporary loss of habitat during construction. Potential direct or indirect impacts to eagles if nesting in the vicinity of the Project Area during construction. Continued risk of avian collision and electrocution.	No potential cumulative effects are anticipated.
Invasive Species	Indirect effect – potential for spread of invasive plant species, or aquatic invasive species during construction and operation.	Continued agricultural practices adjacent properties could contribute to the potential spread of invasive species through continued disturbance of the area.
Socioeconomics and Environmental Justice	No effects anticipated.	Continued improvement in infrastructure could contribute to the economic development within this region.
Air Quality	Construction activities would temporarily increase air emissions because of the combustion of fossil fuels in construction equipment and vehicles, and	Continued agricultural practices adjacent properties could contribute to the potential

Resource	Alternative B Effects	Potential for Cumulative Effects
	from the fugitive dust emissions associated with ground disturbance	fugitive dust emissions and the combustion of fossil fuels.
Noise	Temporary increase in noise during construction activities	No potential cumulative effects are anticipated.
Transportation	Temporary increase in traffic along Highway 26 during construction activities.	No potential cumulative effects are anticipated.
Health and Human Safety	No effects anticipated.	No potential cumulative effects are anticipated.
Corridor Analysis	No effects anticipated.	No potential cumulative effects are anticipated.

5 Summary of Mitigation

Mitigation measures to prevent or minimize both short-term and long-term impacts on resources from construction and operation of the Project would be required. Table 5-1 summarizes proposed measures to mitigate environmental effects of Alternative B.

Table 5-1 Summary of Alternative B Mitigation

Resource	Proposed Mitigation Measure
Floodplains	Removal of trees in floodplains would be monitored and documented. For each tree removed, two trees would be planted in the vicinity.
Water Resources	A construction stormwater permit will require Minnkota to identify site-specific erosion and sedimentation control measures to mitigate potential effects to surface waters. Streams/rivers would be spanned. Wetlands would be spanned to the extent practicable and replacement structures would be installed in the same locations to avoid new wetland impacts.
Wetlands	Temporary impacts to wetlands may occur. In areas of wetland where structures would be replaced or distribution line would be installed by the cable plow, groundcover and soils would be temporarily disturbed. Potential impacts to wetlands would be minimized by using BMPs, such as timber mats. Erosion control BMPs, such as silt fences, silt logs, or other means determined appropriate by Minnkota would be used during construction of the rebuild and underbuild portions of the Project to minimize impacts to wetlands and other water resources in the vicinity of the Project Area.
Biological Resources	Removal of trees would be monitored and documented. For each tree removed, two trees would be planted in the vicinity. In order to avoid potential impacts to northern long-eared bats, all tree clearing would occur during the inactive season (between October 1 and April 15). Avoid tree/shrub clearing during the loggerhead shrike nesting season (April through July). Avoid ground-disturbing activities in areas of undisturbed grassland/prairie during the chestnut-collared longspur nesting season (mid-May to mid-August). BMPs would be implemented to minimize impacts to migratory birds that are consistent with the Avian Powerline Interaction Committee 2012 guidelines. A half mile buffer between Project activities and any active bald eagle nests would be maintained.

Table 5-1 only addresses resource categories that warrant mitigation. Mitigation is not proposed for the following resources due to either absence of the resource in the Project Area, lack of notable impact, or lack of regulatory requirement for mitigation:

- Land use/land ownership
- Important Farmland
- Floodplains
- Cultural resources (no impacts anticipated)

- Aesthetics and visual resources
- Socioeconomics and environmental justice
- Air quality
- Noise
- Transportation
- Human health and safety

6 Coordination, Consultation and Correspondence

To initiate communication and coordination, an early notification package to federal, state, and local agencies and other interested parties was distributed on September 9, 2022. This scoping package included information on the Project and a Project Area map. Pursuant to Section 102(2) (D) (IV) of the NEPA of 1969, scoping responses were requested to ensure that social, economic, and environmental effects were considered in the development of the Project. The following agencies were contacted during the Project scoping process:

- U.S. Department of Agriculture – Natural Resources Conservation Service
- U.S. Fish and Wildlife Service, ND Office
- U.S. Fish and Wildlife Service, Minnesota Region 3
- U.S. Army Corps of Engineers (North Dakota Regulatory Office)
- U.S. Army Corps of Engineers (St. Paul District Office)
- U.S. Department of Commerce
- U.S. Environmental Protection Agency, Region 8
- U.S. Environmental Protection Agency, Region 5
- Federal Emergency Management Agency
- Indian Affairs Commission
- U.S. Department of Interion, Bureau of Indian Affairs, Midwest Office
- North Dakota Game and Fish Department
- North Dakota Department of Environmental Quality
- North Dakota Department of Transportation
- North Dakota State Water Commission
- North Dakota State Historical Society
- North Dakota Geological Survey
- North Dakota Parks and Recreation Department
- Minnesota Department of Natural Resources, Northwest Regional Headquarters
- Minnesota Department of Agriculture

- Minnesota Department of Health
- Minnesota Department of Transportation
- Minnesota Indian Affairs Council
- Minnesota Office of Attorney General
- Minnesota Pollution Control Agency
- Minnesota State Historic Preservation Office

At the conclusion of the 30-day comment period, eleven responses were received. These comments provided valuable insight into the evaluation of potential environmental effects. Letters were received from the following agencies and are provided in Appendix F:

- U.S. Department of Agriculture – Natural Resources Conservation Service
- U.S. Fish and Wildlife Service, ND Regional Office
- U.S. Fish and Wildlife Service, Cass County Office
- North Dakota Geological Survey
- North Dakota Game and Fish Department
- North Dakota State Historical Society
- North Dakota Department of Transportation
- North Dakota State Water Commission
- Minnesota Department of Natural Resources, Northwest Regional Headquarters
- Minnesota Pollution Control Agency
- Minnesota State Historic Preservation Office

7 List of Preparers

This EA was prepared by Barr Engineering Co. (Barr) under a contractual agreement between Minnkota and Barr. Individuals with primary responsibility for preparation of this EA are identified in Table 7-1.

Table 7-1 Preparers

Name	Role	Primary Responsibilities
Shanna Braun	Principal in Charge	Quality control/quality assurance
Veronica Parsell	Project Manager	Client coordination, project administration, document author, quality control/quality assurance
Jess Butler	Ecologist	Document author, impact assessment
Tyler Conley	Environmental Scientist	Document author, impact assessment
Anna Nieuwsma	Geologist	Document author, impact assessment
Megan Niess	GIS Analyst	Data analysis, impact assessment, figure creation
Lisa Ungar	Administrative Assistant	Technical editing and document formatting
Commonwealth Heritage Group	Subconsultant	Phase I Cultural Resources Literature Review, Phase I Archaeological Reconnaissance Investigation, and Phase I History/Architecture Reconnaissance Investigation

8 References

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Appendices

Appendix A

Agency Coordination Materials

USDA/NRCS FFPA Exemption Documentation
USFWS Special Use Permit Application and Permit Received

USDA/NRCS FFPA Exemption Documentation

Veronica A. Parsell

From: Brennan, Joseph - NRCS, St. Paul, MN <joseph.brennan@usda.gov>
Sent: Monday, November 7, 2022 11:54 AM
To: Veronica A. Parsell
Cc: Jeffrey Kalin - NRCS, St. Paul, MN
Subject: RE: NRCS Response to Buffalo River Line Rebuild Project

CAUTION: This email originated from outside of your organization.

Hello Veronica,

Based on the description, this is correct. If you need a letter or more official correspondence stating such, please follow up.

Sincerely,

Joe Brennan
State Soil Scientist - Minnesota
Natural Resources Conservation Service
375 Jackson St., Suite 600
St. Paul, MN 55101-1854
Mobile: (612) 246-0423
Office: (651) 602-7925
joseph.brennan@usda.gov

From: Veronica A. Parsell <VParsell@barr.com>
Sent: Monday, November 7, 2022 10:55 AM
To: Brennan, Joseph - NRCS, St. Paul, MN <joseph.brennan@usda.gov>
Cc: Miller, Kaitlyn - NRCS, St Paul, MN <Kaitlyn.Miller@usda.gov>; Jeffrey Kalin - NRCS, St. Paul, MN <jeffrey.kalin@usda.gov>
Subject: RE: NRCS Response to Buffalo River Line Rebuild Project

Hi Joseph,

I recently received the attached letter – thank you so much for sending, Jeff – and I wanted to touch base with you regarding the Maple River to Buffalo River Switch 69 kV Line Rebuild Project being exempt from the Farmland Protection Policy Act (FPPA). Based on my [limited] understanding, the project would be exempt from the FPPA because it consists of construction within an existing right-of-way purchased on or before August 4, 1984.

The Maple River to Buffalo project consists of a transmission line rebuild and all work will be restricted to the existing right-of-way, which is 80 feet in width. The Maple River to Buffalo line was constructed in the 1940s. Could you let me know if any additional information would be needed to confirm exemption?

Thank you so much,
Veronica

Veronica A. Parsell
She/her/hers

Senior Cultural Resources Specialist
Minneapolis, MN office: 952.832.2623
VParsell@barr.com
www.barr.com



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From: Jeffrey Kalin - NRCS, St. Paul, MN <jeffrey.kalin@usda.gov>
Sent: Thursday, November 3, 2022 7:43 AM
To: Veronica A. Parsell <VParsell@barr.com>
Cc: Brennan, Joseph - NRCS, St. Paul, MN <joseph.brennan@usda.gov>; Miller, Kaitlyn - NRCS, St Paul, MN <Kaitlyn.Miller@usda.gov>
Subject: NRCS Response to Buffalo River Line Rebuild Project

CAUTION: This email originated from outside of your organization.

Veronica,

Apologies for the delay in the response. Attached is the review that was completed for the Buffalo Line Rebuild Project in our findings there is one easement adjacent to the project that may be impacted depending on the activities involved we the rebuild. Thank you and have a great day.

Jeff Kalin
Minnesota State Wildlife Biologist
United States Department of Agriculture
Natural Resource Conservation Service
375 Jackson St., Suite 600
St. Paul, MN 55101
Office: 651-602-7868
Cell: 612-756-3842
jeffrey.kalin@usda.gov

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USFWS Special Use Permit Application and Permit Received

FWS Form 3-1383-G
U.S. Department of the Interior

OMB Control No. 1018-0102
Expires 01/31/2024

GENERAL ACTIVITIES
SPECIAL USE PERMIT APPLICATION

National Wildlife Refuge System

Refuge: Clay County Waterfowl Production Area

Address: Detroit lakes Wetland Management District -1732 N Tower Rd- Detroit Lakes, MN 56501-7959

Attn: (Refuge Official) Laurel Kullerud

E-Mail: laurel_kullerud@fws.gov

Phone #: 218-847-4431

For Official Use Only:

Permit #:

Station #:

Permit Term: from to

Note: We do not require all information for each use. See instructions at the end of the notice and contact the refuge identified above to determine applicability of a particular item. Attach additional sheets to the application if the text spaces provided are inadequate.

1a) Identify the type of Permit you are applying for: **New** ○ **Renewal** ○ **Modification** ◉ **Other** ◉ Existing Easement

1b) Have you applied, or do you intend to apply, to any other refuges for this same activity? ○ **Yes** ◉ **No**

1c) If yes, which refuges?

Applicant Information

2) Full Name: Samantha Roberts

3) Organization: MINNKOTA POWER COOPERATIVE

4) Physical Address: 5301 32nd Avenue South

City/State/Zip: Grand Forks, North Dakota, 58201

5) Mailing Address: same as above

City/State/Zip:

6) Phone #: 701-795-4289

7) Fax #:

8) E-mail: sroberts@minnkota.com

9) List **known** assistants/subcontractors/subpermittees: (Only required if the assistants/subcontractors/subpermittees will be operating on the refuge without the permittee being present.)

Name/Business	Address	Phone #

Activity Information

10a) Choose an Activity: **Special Access** ○ **Construction** ◉ **Event** ○ **Cabins/Subsistence** ○ **Group Visit** ○

Educational Activity ○ **Ceremonial Activity** ○ **Wood Cutting** ○ **Trapping** ○ **Mapping/Survey** ○ **Other** ○

10b) Specify type of activity if 'Other' was chosen:

Note: Depending on the activity for which you are requesting a permit, we may ask you for the following activity information. Please contact the specific refuge where the activity is being conducted to determine what information is required.

11) Describe activity by specifically identify timing (occupancy timeline), frequency, and how the activity is expected to proceed:

Minnkota Power Cooperative Incorporated will hire a contractor to replace, pole for pole, the existing power line in the easement on your property. The estimated construction is planned to take place between June 2023 - December 2023 at this time. The contractor will remove and replace the existing power line with new poles and conductor.

12) Specifically identify location(s) and/or attach a map: (GPS location(s) preferred)

The project is located in Cass County ND on Cass County Road #22 and Clay County Minnesota along 90th Avenue between the towns of Harwood, ND and Hitterdahl, MN. The project is a total of 25.4 miles long of which less than 1 mile is USFWS owned property to be accessed.

13) If drones will be used, describe why the drone is needed and provide specifics on how it will be used:

Drones are used as needed to inspect power lines. We may inspect the construction if possible. Please share any restrictions you might have.

14) Inquire with refuge if Plan of Operation is required. Is a Plan of Operation attached? **Yes** ○ **No** ○ **N/A** ◉

For group, ceremonial, and educational activities provide:

15) Expected number of participants, if applicable: Children (1-18) Adults Total

16) Grade level of educational group, if applicable: Grade

17a) Will staff time/assistance be required for group activities? Yes ○ No ○ N/A ○

17b) If yes, what's the anticipated time frame?

Insurance Coverage/License/Certifications/Permits

Note: Contact the specific refuge headquarters office where the activity is going to be conducted to determine if any type of insurance, certification(s), or permit(s) will be required. We may process this Special Use Permit while the applicant obtains them.

18) List and attach a copy of any **insurance coverage(s)** you have such as general liability, aviation, grounding liability, contaminants applicator, medical evacuation, or others, if required:

Insurance Type	Carrier Name	Policy Number
General Liability	Federated Rural Electric Insurance Exchange	33ARB 029-22
Auto	Federated Rural Electric Insurance Exchange	33ARB 029-22
Aircraft and commercial General Aviation Liability	Global Aerospace, Inc	ACZ0600019329

19) List and attach a copy of any relevant licenses, certifications, and permits, if required:

License/Certification/Permit Type	Number (if applicable)	Issued to:

OMB Control No. 1018-0102
Expires 01/31/2024

Logistics and Transportation

Note: Not all information is required for each use. Please contact the specific refuge where the activity is being conducted to determine what information is required. Attach additional sheets to the application if the text spaces provided are inadequate.

20) Does activity require personnel to stay overnight onsite? Yes ○ No ◉

21) List names of personnel involved:

List Names	List Names	List Names

22) Specifically describe all major equipment/gear and materials used, if required:

Pickup truck, trailers, power line digger truck, bucket truck, skid steer

23a) Provide detailed information on the logistics for onsite, intersite, and/or ship-to-shore transportation to or on the refuge, if required**:**

Material will be provided to a laydown yard not located on your property and they will be hauled to the individual existing pole location and used to replace the existing power pole.

23b) Provide descriptions, license plate, or I.D. numbers of vehicles used for onsite, intersite, and/or ship-to-shore transportation, if required:

Type of transportation (onsite, intersite, or ship-to-shore)	Equipment Type	License/I.D./Registration Numbers
not known at this time		

24) Specifically describe onsite work and/or living accommodations:

Remove and replace power pole, string new conductor and finish by clipping in.

25) Specifically describe onsite hazardous material storage or other onsite material storage space:

None

Sign, date, and print this form and return it to the refuge for processing. By signing this application, I agree my operations will conform to the information I have provided in this application, and I understand that any deviations or changes to this information must receive prior written approval.

26) Signature of Applicant: Samantha Roberts Digitally signed by Samantha Roberts Date: 2022.08.26 10:26:24 -05'00' Date of Application: _____

OMB Control No. 1018-0102
Expires 01/31/2024

NOTICES

No Members of Congress or Resident Commissioner shall participate in any part of this contract or to any benefit that may arise from it, but this provision shall not pertain to this contract if made with a corporation for its general benefit.

The Permittee agrees to be bound by the equal opportunity "nondiscrimination in employment" clause of Executive Order 11246.

PRIVACY ACT STATEMENT

Authority: The information requested is authorized by the National Wildlife Refuge System Administration Act (16 U.S.C. 668dd-ee) and the Refuge Recreation Act (16 U.S.C. 460k-460k-4).

Purpose: To collect the applicant's information to process permits allowing for general activities such as: woodcutting; miscellaneous events (fishing tournaments, one-time events, other special events); cabin rentals; and education activities.

Routine Uses: The information will be used by the refuge's administrative office for processing General Activity Special Use permits. More information about the routine uses maybe found in the Systems of Records Notice, FWS-5 National Wildlife Refuge Special Use Permits.

Disclosure: Providing the information is voluntary. However, submission of information is required to process and approve general activity usage on the National Wildlife Refuge System.

PAPERWORK REDUCTION ACT STATEMENT

We are collecting this information subject to the Paperwork Reduction Act (44 U.S.C. 3501) to evaluate the qualifications, determine eligibility, and document permit applicants and to respond to requests made under the Freedom of Information Act and the Privacy Act of 1974. The information that you provide is required to obtain or retain a benefit; however, failure to provide all required information is sufficient cause for the U.S. Fish and Wildlife Service to deny a permit. False, fictitious, or fraudulent statements or representations made in the application may be grounds for revocation of the Special Use Permit and may be punishable by fine or imprisonment (18 U.S.C. 1001). According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. OMB has approved this information collection and assigned control number 1018-0102.

ESTIMATED BURDEN STATEMENT

The public reporting burden for this information collection varies based on the requested specific refuge use. We estimate the relevant public reporting burden for the Commercial Activity Special Use Permit Application form (General) to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Service Information Clearance Officer, U.S. Fish and Wildlife Service, 5275 Leesburg Pike, MS: PRB (JAO/3W), Falls Church, VA 22041-3803, or via email to Info_Coll@fws.gov. Please do not send your completed form to this address.

GENERAL CONDITIONS AND REQUIREMENTS

1) Responsibility of Permittee: We shall consider the permittee, by operating on the premises, to have accepted these premises with all facilities, fixtures, or improvements in their existing condition as of the date of this permit. At the end of the period specified or upon earlier termination, the permittee shall give up the premises in as good order and condition as when received except for reasonable wear, tear, or damage occurring without fault or negligence. The permittee will fully repay the Service for any and all damage directly or indirectly resulting from negligence or failure on his/her part, and/or the part of anyone of his/her associates, to use reasonable care.

2) Operating Rules and Laws: The permittee shall keep the premises in a neat and orderly condition at all times, and shall comply with all municipal, county, and State laws applicable to the operations under the permit as well as all Federal laws, rules, and regulations governing national wildlife refuges and the area described in this permit. The permittee shall comply with all instructions applicable to this permit issued by the refuge official in charge. The permittee shall take all reasonable precautions to prevent the escape of fires and to suppress fires and shall render all reasonable assistance in the suppression of refuge fires.

3) Use Limitations: The permittee's use of the described premises is limited to the purposes herein specified and does not, unless provided for in this permit, allow him/her to restrict other authorized entry onto his/her area; and allows the U.S. Fish and Wildlife Service to carry on whatever activities are necessary for: (1) protection and maintenance of the premises and adjacent lands administered by the U.S. Fish and Wildlife Service; and (2) the management of wildlife and fish using the premises and other U.S. Fish and Wildlife Service lands.

OMB Control No. 1018-0102
Expires 01/31/2024

4) Transfer of Privileges: This permit is not transferable, and no privileges herein mentioned may be sublet or made available to any person or interest not mentioned in this permit. No interest hereunder may accrue through lien or be transferred to a third party without the approval of the Regional Director of the U.S. Fish and Wildlife Service and the permit shall not be used for speculative purposes.

5) Compliance: The U.S. Fish and Wildlife Service's failure to require strict compliance with any of this permit's terms, conditions, and requirements shall not constitute a waiver or be considered as a giving up of the U.S. Fish and Wildlife Service's right to thereafter enforce any of the permit's terms or conditions.

6) Conditions of Permit not Fulfilled: If the permittee fails to fulfill any of the conditions and requirements set forth herein, the U.S. Fish and Wildlife Service shall retain all money paid under this permit to be used to satisfy as much of the permittee's obligation as possible.

7) Payments: All payment shall be made on or before the due date to the local representative of the U.S. Fish and Wildlife Service by a postal money order or check made payable to the U.S. Fish and Wildlife Service.

8) Termination Policy: At the termination of this permit the permittee shall immediately give up possession to the U.S. Fish and Wildlife Service representative, reserving, however, the rights specified in paragraph 11below. If he/she fails to do so, he/she will pay the U.S. Fish and Wildlife Service, as liquidated damages, an amount double the rate specified in this permit for the entire time possession is withheld. Upon yielding possession, we will still allow the permittee to reenter as needed to remove his/her property as stated in paragraph 11below. The acceptance of any fee for the liquidated damages or any other act of administration relating to the continued tenancy is not to be considered as an affirmation of the permittee's action nor shall it operate as a waiver of the U.S. Fish and Wildlife Service's right to terminate or cancel the permit for the breach of any specified condition or requirement.

9) Revocation Policy: The Regional Director of the U.S. Fish and Wildlife Service may revoke this permit without notice for noncompliance with the terms hereof, or for violation of general and/or specific laws or regulations governing national wildlife refuges, or for nonuse. It is at all times subject to discretionary revocation by the Director of the Service. Upon such revocation the U.S. Fish and Wildlife Service, by and through any authorized representative, may take possession of said premises for its own and sole use, and/or may enter and possess the premises as the agent of the permittee and for his/her account.

10) Damages: The U.S. Fish and Wildlife Service shall not be responsible for: any loss or damage to property including but not limited to crops, animals, and machinery; injury to the permittee or his/her relatives, or to the officers, agents, employees, or any other(s) who are instructed to be on the premises; the sufferance from wildlife or employees or representatives of the U.S. Fish and Wildlife Service carrying out their official responsibilities. The permittee agrees to hold the U.S. Fish and Wildlife Service harmless from any and all claims for damages or losses that may arise to be incident to the flooding of the premises resulting from any associated government river and harbor, flood control, reclamation, or Tennessee Valley Authority activity.

11) Removal of Permittee's Property: Upon the expiration or termination of this permit, if all rental charges and/or damage claims due to the U.S. Fish and Wildlife Service have been paid, the permittee may, within a reasonable period as stated in the permit or as determined by the U.S. Fish and Wildlife Service official in charge, but not to exceed 60 days, remove all structures, machinery, and/or equipment, etc., from the premises for which he/she is responsible. Within this period the permittee also must remove any other of his/her property including his/her acknowledged share of products or crops grown, cut, harvested, stored, or stacked on the premises. Upon failure to remove any of the above items within the aforesaid period, they shall become the property of the U.S. Fish and Wildlife Service.

INSTRUCTIONS FOR COMPLETING APPLICATION

You may complete the application portion verbally, in person, or electronically and submit to the refuge for review. Note: Please read instructions carefully as not all information is required for each activity. Contact the specific refuge headquarters office where the activity is going to be conducted to determine applicability of a particular item. We may add special conditions or permit stipulations to permit prior to approval.

1a-1c) Identify if permit application is for new, renewal, or modification of an existing permit, whether or not you have or will be applying to another refuge for the same activity, and for which refuge(s). Permit renewals may not need all information requested. Contact the specific refuge headquarters office where the activity is going to be conducted if you have questions regarding the applicability of a particular item.

2-8) Provide full name, organization (if applicable), physical and/or mailing address, phone, fax, and e-mail.

9) Provide known names and addresses of assistants, subcontractors or subpermittees. Names and address are only required if the assistants, subcontractors or subpermittees will be operating on the refuge without the permittee being present. Volunteers, assistants, subcontractors or subpermittees that are accompanied by the permittee need not be identified.

10a) Activity type: check one of the following categories:

- Special Access;
- Construction;

- Event;
- Cabin/Subsistence (subsistence cabins are only allowed on Alaska Refuges);
- Educational Activity;
- Ceremonial Activity;
- Wood Cutting, Firewood Collection;
- Trapping (non-commercial);
- Mapping/Survey (non-commercial and non-archeological)
- Other:

10b) If “other” was chosen for activity type, specify the activity in the space provided.

11) Provide detailed information on the activity, including times, occupancy timeline, frequency, and how the activity is expected to proceed, etc. Permit renewals may not need activity description if the activity is unchanged from previous permit. Most repetitive activities, such as group visits, do not require an activity description for each visit. Contact the specific refuge headquarters office where the activity is going to be conducted to determine if we require an activity description.
12) identify specific location (GPS coordinates preferred) if not at a named facility, and attach a map with location. Most repetitive activities, such as group visits, do not require a location. In addition, permit renewals may not require a location if the activity is essentially unchanged from the previous permit. Contact the specific refuge headquarters office where the activity is going to be conducted to determine if we require a location.

13) If a drone will be used for this activity, describe in detail why the drone is necessary to complete the activity and provide specifics on how the drone will be used.

14) Attach a Plan of Operation, if required. Most repetitive activities do not require a Plan of Operations for each visit. In addition, permit renewals may not require a Plan of Operations if the activity is essentially unchanged from the previous permit. Contact the specific refuge headquarters office listed where the activity is going to be conducted to determine if a Plan of Operations is required.

15-16) Provide an estimate of the number of adults, and children and grade level of group, if applicable.

17a-17b) Identify if group activities will require onsite refuge staff and the anticipated time frame, if applicable.

18) Provide name, type, carrier of insurance and attach copies, if required. Contact the specific refuge headquarters office where the activity is going to be conducted to determine if we require insurance and type of insurance.

19) Specifically identify type(s) and number(s) of other licenses, certifications or permits, and provide copies if required. Contact the specific refuge headquarters office where the activity is going to be conducted to determine the type(s) of licenses, certifications or permits required, and to coordinate the simultaneous application of several types of licenses, certifications or permits. We may or may not issue this Special Use Permit (SUP) while the permittee obtains other licenses, certifications, and/or permits.

20-21) Provide name(s) of any personnel required to stay overnight, if applicable.

22) Identify all equipment and materials that will be used, if required. Most repetitive events, such as group visits, do not require a list of equipment. In addition, permit renewals may not require a list of equipment if the event is essentially unchanged from the previous permit. Contact the specific refuge headquarters office where the activity is going to be conducted to determine if we require a list of equipment.

23a-23b) Provide vehicle descriptions and license plate or identification numbers of all vehicles, including boats and airplanes, if required. We only require motor vehicle descriptions for permittee vehicle, and/or if the vehicle will be operated on the refuge without the permittee being present. Motor vehicles accompanied by the permittee as part of a group (convoy) activity need not be identified if cleared in advance by the refuge supervisor. Specifically describe ship-to-shore, intersite (between islands, camps, or other sites) and onsite transportation mechanisms, and license plate or identification numbers, if required.

24) Specifically describe onsite work and/or living accommodations, if applicable.

25) Specifically describe onsite hazardous material storage, or other onsite material storage space (including on and offsite fuel caches).

26) Sign, date, and print the application. By signing this application, you agree your operations will conform to the information you have provided in this application, and understand that any deviations or changes to this information must receive prior written approval. Click on the Print button to print the application (if using the fillable version). The refuge official will review and, if approved, fill out the remaining information, sign, and return a copy to you for signature and acceptance.

THIS APPLICATION FORM IS NOT VALID AS A PERMIT

BUT MAY BE USED AS A REFERENCE DOCUMENT ATTACHED TO THE OFFICIAL PERMIT. ONLY OFFICIAL REFUGE PERSONNEL MAY ASSIGN A VALID PERMIT NUMBER AND PERMIT TERM TO THIS APPLICATION FORM AFTER THE PERMIT HAS BEEN APPROVED.

CERTIFICATE OF INSURANCE

12/3/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

THIS IS TO CERTIFY THAT:

Minnkota Power Co-op, Inc./Square Butte Elec Co-op.
a Partnership between Minnkota Power Co-op, Inc.
5301 32nd Avenue So.
Grand Forks, ND 58201

FEDERATED RURAL ELECTRIC INSURANCE EXCHANGE

NAIC: 11118
P.O. Box 15147, Lenexa, KS 66285-5147
(913) 541-0150 fax (913) 541-9004
www.federatedrural.com

IS, AT THE ISSUE DATE OF THIS CERTIFICATE, INSURED BY THE COMPANY UNDER THE POLICY(IES) LISTED BELOW. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

TYPE OF INSURANCE	POLICY NUMBER	POLICY DATES	LIMITS ($)	
GENERAL LIABILITY COMMERCIAL GENERAL LIABILITY OCCURRENCE-BASIS COMPREHENSIVE FORM PREMISES / OPERATIONS UND / EXPLOSION & COLLAPSE PRODUCTS / COMP OPS CONTRACTUAL BROAD-FORM PROPERTY DAMAGE NO GENERAL AGGREGATE	33 ARB 029-22	1/1/2022 to 1/1/2024	EACH OCCURRENCE	$2,000,000
			DAMAGE TO RENTED PREMISES	$2,000,000
			MED EXP (PER PERSON)	$1,000
			PERSONAL & ADV INJURY	$2,000,000
AUTOMOBILE ANY AUTO HIRED & NON-OWNED AUTO GARAGE LIABILITY (ANY AUTO)	33 ARB 029-22	1/1/2022 to 1/1/2024	COMBINED SINGLE LIMIT (EACH ACCIDENT)	$2,000,000
			COMP DEDUCTIBLE	$500
			COLLISION DEDUCTIBLE	$500
ALL-RISK BLANKET PROPERTY	33 ARB 029-22	1/1/2022 to 1/1/2024	PROPERTY LIMIT	$15,605,872
			PROPERTY DEDUCTIBLE	$5,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EQUIPMENT / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

It is agreed that where required by mortgage, lease, or other legal agreement, the interests of mortgagees, lessees, and loss payees are insured as their interests may appear as additional insured's and/or loss payees. Blanket Additional Insured and Waiver of Subrogation are included under General Liability and Automobile Liability insurance if required by written contract or agreement.

CERTIFICATE HOLDER:

CANCELLATION:

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE:

Wm C. West

CERTIFICATE OF INSURANCE

This certificate is given as a matter of information only and confers no rights upon the certificate addressee.

Date: May 13, 2022

This is to certify to:
To Whom It May Concern

That the following policy has been issued to:
MINNKOTA POWER COOPERATIVE, INC.
5301 32ND AVE. S.
GRAND FORKS, North Dakota 58201
USA

Policy No. 9017981 issued by one or more member companies of Global Aerospace Pool through Global Aerospace, Inc.

Policy Period: from June 03, 2022 to June 03, 2023 Policy Territory: Worldwide

AIRCRAFT AND COMMERCIAL GENERAL AVIATION LIABILITY

Coverages	Limits of Liability
Single Limit Bodily Injury and Property Damage	$2,000,000 Each Occurrence
Third Party War Liability	$2,000,000 Aggregate

Solely as respects an occurrence arising out of the ownership, maintenance or use of an unmanned aircraft insured under this policy and solely to the extent required in an agreement with the Named Insured, the following provisions shall apply:

The WHO IS AN INSURED section of the policy is amended to include the certificate addressee as an insured, but only as respects the Named Insured's use of the aircraft and only with respect to the certificate addressee's liability because of acts or omissions of the Named Insured. However, no such person or organization is an Insured if he, she, or it, or any of his, her, or its agents or employees is engaged in the manufacture, maintenance, repair, or sale of aircraft, aircraft engines, components or accessories, or in the operation of any airport, hangar, flying school, flight service, or aircraft or piloting service, as respects any occurrence arising out of such activity.

The insurance, as to the interest of the certificate addressee, shall be primary without right of contribution by any other valid and collectible insurance available to the certificate addressee.

We waive any right of recovery we may have against the certificate addressee because of payments it makes for physical damage to aircraft described in this certificate, but only to the same extent that the Named Insured has waived its right for recovery for such physical damage against the certificate addressee.

Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies. This certificate does not amend, extend or otherwise alter the coverages afforded by the policies described herein. Limits may have been reduced by paid claims.

GLOBAL AEROSPACE, INC.
BY:



GLOBAL AEROSPACE

MPC Environmental Review

Line #: 700H / DILWORTH Outpost

Clay County, MN

0 500 Feet

N

MPC Lines
USFWS Lands
NHIS Polygons
Calcareous Fens
State Lands
Wellhead Protection Areas
Aquifers
Federal Lands
Wetlands



MPC Environmental Review

Line #: 700H / DILWORTH Outpost

Clay County, MN

0 500 Feet

N

MPC Lines
USFWS Lands
NHIS Polygons
Calcareous Fens
State Lands
Wellhead Protection Areas
Aquifers
Federal Lands
Wetlands



MPC Environmental Review

Line #: 700H / DILWORTH Outpost

Clay County, MN

0 500 Feet

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NHIS Polygons
Calcareous Fens
State Lands
Wellhead Protection Areas
Aquifers
Federal Lands
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MPC Environmental Review

Line #: 700H / DILWORTH Outpost

Clay County, MN

0 500 Feet

N

MPC Lines
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NHIS Polygons
Calcareous Fens
State Lands
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MPC Environmental Review

Line #: 700H / DILWORTH Outpost

Clay County, MN

0 500 Feet

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Line #: 700H / DILWORTH Outpost

Clay County, MN

0 500 Feet

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Wetlands



MPC Environmental Review

Line #: 700H / DILWORTH Outpost

Clay County, MN

0 500 Feet

N

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Calcareous Fens
State Lands
Wellhead Protection Areas
Aquifers
Federal Lands
Wetlands



MPC Environmental Review

Line #: 700H / DILWORTH Outpost

Clay County, MN

0 500 Feet

N

MPC Lines
USFWS Lands
NHIS Polygons
Calcareous Fens
State Lands
Wellhead Protection Areas
Aquifers
Federal Lands
Wetlands



Permit #: 32586-23-001

Detroit Lakes Wetland Management District
Commercial Activity
Special Use Permit

(For Official Use Only)

Permit Term:

From: 6/1/2023 To: 12/31/2023

Permittee Name/Business: Minnkota Power Cooperative
Permit Activity Type: Commercial - Access
Permit Activity Type (Other/Not Listed): [Activity Type - Other]
Permit Status: Approved
If approved, provide special conditions (if any) in the text box below.
If denied, provide justification below.

Refuge Manager must be notified before permitted activity begins.
All equipment must be clean and free of invasive species plant material including seeds before entering any Refuge, Waterfowl Production Area (WPA), or Service easement. The Refuge Manager reserves the right to inspect and deny the use of any equipment/vehicle/horse etc. that appears to contain invasive species plant material or seeds.

1.	Are there additional special conditions attached to the permit?	☐ Yes	☐ No	☐ N/A
2.	Are other licenses/permits required, and have they been verified?	☒ Yes	☐ No	☐ N/A
3.	Are insurance and/or certification(s) required, and have they been verified?	☒ Yes	☐ No	☐ N/A
4.	Record of Payments:	☐ Full	☐ Partial	☒ Exempt
5.	Is a surely bond or security deposit required?	☐ Yes	☒ No	☐ N/A

This permit is issued by the U.S. Fish and Wildlife Service and accepted by the applicant signed below, subject to the terms, covenants, obligations, and reservations, expressed or implied therein, and to the notice, conditions, and requirements included or attached. A copy of this permit should be kept on-hand so that it may be shown at any time to any refuge staff

Permit approved/issued by: (Signature and title)
LAUREL KULLERUD
Digitally signed by LAUREL KULLERUD
Date: 2022.09.23 08:33:55 -05'00'
Date: _____

Permit accepted by: (Signature of permittee)
Samantha Roberts
Date: 09-27-2022

Appendix B

Wetland Permit

Appendix B Wetland Permit

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
332 MINNESOTA STREET, SUITE E1500
ST. PAUL, MN 55101-1323

July 17, 2023

Regulatory File No. 2023-00673-TMS

Minnkota Power Cooperative, Inc.
c/o Samantha Roberts
5301 32nd Avenue South
Grand Forks, North Dakota 58201

Dear Samantha Roberts:

We are responding to your request for authorization to replace electric transmission line poles and bury an existing distribution line along approximately 25.5 miles of 90th Avenue Northwest between 173rd Avenue Southeast and 240th Street North. The proposed work is located in Section 2, Townships 140 and 141 North, Ranges 45, 46, 47, 48, and 49 West, Clay County, Minnesota and Cass County, North Dakota.

Project authorization:

The regulated activities associated with this project include the re-installation of electric transmission line in the same location over the Red River, a Section 10 water, and the temporary discharge of fill material into 1.065 acre of wetlands to allow for mechanical equipment to access and replace the poles and burying an existing distribution line, as shown on the enclosed figures labeled 2023-00673-TMS Figures 1-15 of 15. As indicated on those figures, the overall project consists of ten (10) single and complete linear projects.

Regulated activities associated with single and complete linear project 1 require verification prior to starting work. We have verified that the regulated activities are authorized by the Utility Regional General Permit (RGP). The remaining single and complete linear projects do not appear to require verification from the Corps prior to starting work.

Conditions of your permit:

You must ensure the authorized work is performed in accordance with the enclosed General Permit terms and General Conditions.

You are also required to complete and return the enclosed Compliance Certification form within 30 days of completing your project. Please email the completed form to the contact identified in the last paragraph.

A change in location or project plans may require re-evaluation of your project. Proposed changes should be coordinated with this office prior to construction. Failure to comply with all terms and conditions of this permit invalidates this authorization and could result in a violation of Section 301 of the Clean Water Act or Section 10 of the Rivers and Harbors Act. You must also obtain all local, State, and other Federal permits that apply to this project.

Water Quality Certification:

You must also comply with the enclosed Water Quality Certification conditions associated with this General Permit.

Permit expiration:

This permit is valid until February 19, 2028 unless the general permit is modified, suspended, or revoked. If the work has not been completed by that time, you should contact this office to verify that the permit is still valid. Furthermore, if you commence or are under contract to commence this activity before the date of General Permit expiration, modification, or revocation, you have 12 months to complete the activity under the present terms and conditions of the General Permit.

Contact Information:

If you have any questions, please contact me in our St. Paul office at (651) 290-5004 or by email at Tom.M.Sowinski@usace.army.mil.

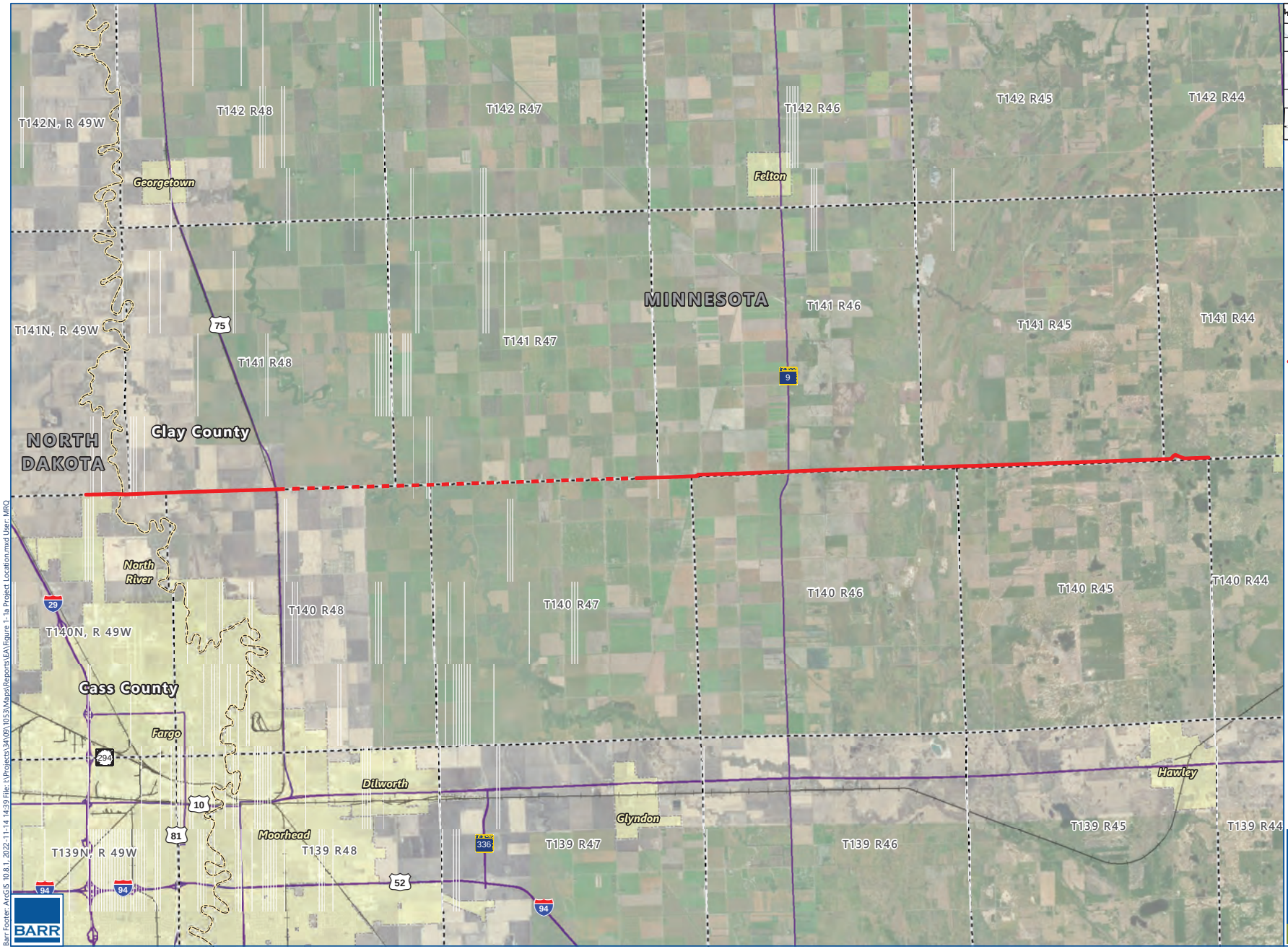
Sincerely,



Tom Sowinski
Project Manager

Enclosures
CC:
Veronica Parsell (Agent)
Steve Hofstad (BWSR)
USACE – North Dakota Regulatory Office

2023-00673-TMS Figure 1 of 15

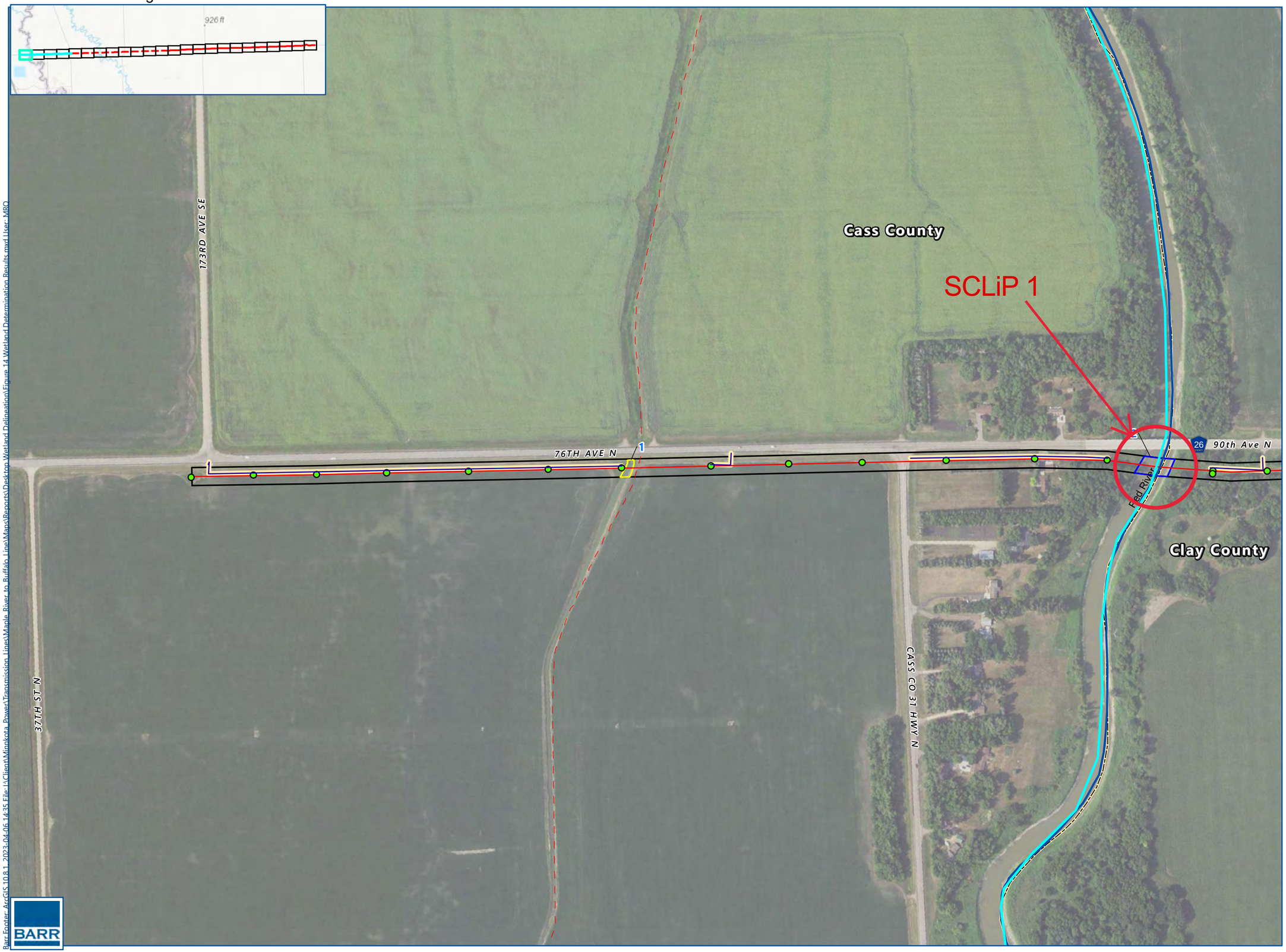


PROJECT LOCATION
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1

BARR

Barr Foster ArcGIS 10.8.1, 2022-11-14 14:39 File: \\Projects\34\09\10523\Maps\Reports\EA\Figure 1-1a Project Location.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Underbuild Alignment
Right-of-Way (80' Wide)
Replacment Poles In Wetlands
Replacment Poles

DNR River and Stream Centerlines (Stream Type)

Stream Type

Ditch (Unknown)
River Centerline

Site Access Wetland Impacts
Site Access Near Wetland (12 ft)

0 200 400
Feet

N

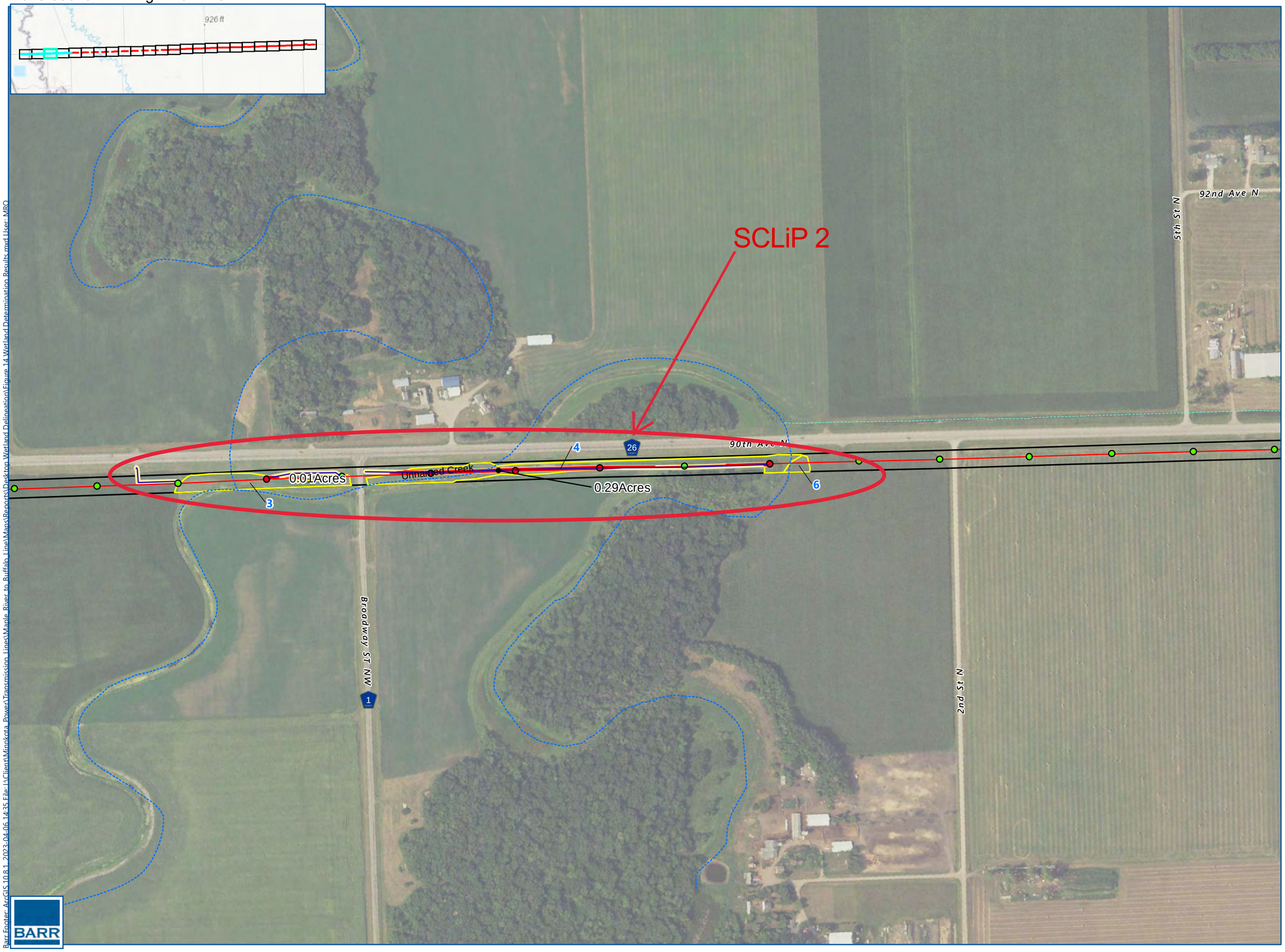
Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-1

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 14:35 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRO



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Underbuild Alignment
Right-of-Way (80' Wide)
Replacment Poles In Wetlands
Replacment Poles

DNR River and Stream Centerlines (Stream Type)

Stream Type

Stream (Intermittent)
Ditch (Intermittent)
Site Access Wetland Impacts
Site Access Near Wetland (12 ft)

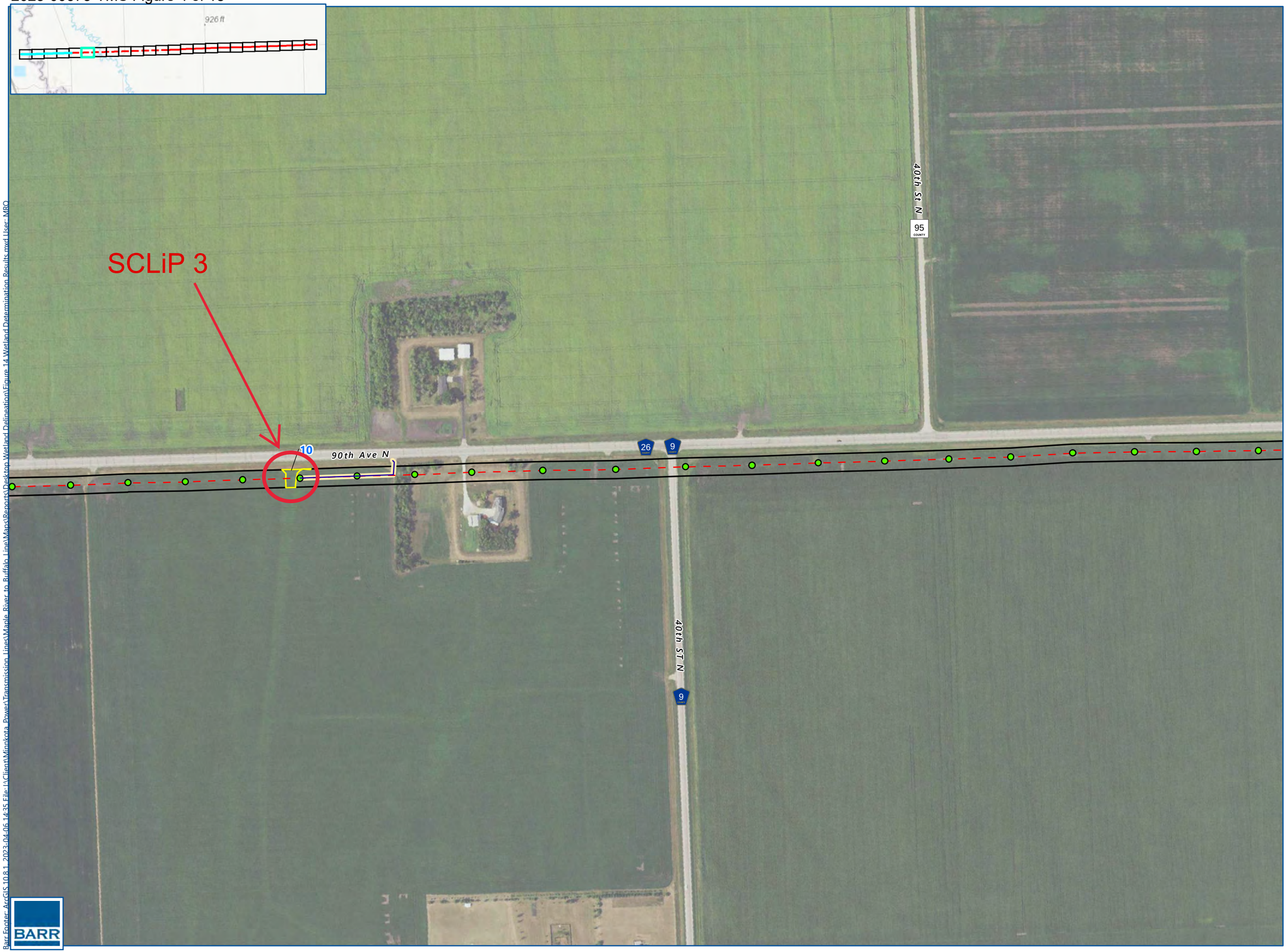
0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and Clay County, MN

FIGURE 1-3

Barr Engineer, ArcGIS 10.8.1, 2023-04-06 14:35 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRO



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Underbuild Alignment
Right-of-Way (80' Wide)
Replacment Poles In Wetlands
Replacment Poles
Site Access Wetland Impacts
Site Access Near Wetland (12 ft)

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-6

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 14:35 File: I:\Client\Minnkota Power\Transmission Lines\Maple River to Buffalo Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRO



County Boundary

Floodplain forest

Riverine

Seasonally flooded basin

Shallow marsh

Shallow, open water

Shrub swamp

Proposed Project Features

Underbuild Alignment

Right-of-Way (80' Wide)

Replacment Poles In Wetlands

Replacment Poles

DNR River and Stream Centerlines (Stream Type)

Stream Type

Ditch (Intermittent)

River Centerline

Site Access Wetland Impacts

Site Access Near Wetland (12 ft)

0 200 400

Feet

N

Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-7

BARR

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County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Underbuild Alignment
Right-of-Way (80' Wide)
Replacment Poles In Wetlands
Replacment Poles

DNR River and Stream Centerlines (Stream Type)

Stream Type

Ditch (Intermittent)
Site Access Wetland Impacts
Site Access Near Wetland (12 ft)

0 200 400
Feet

N

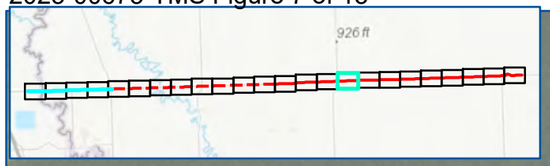
Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-14

BARR

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SCLiP 6

0.001Acres

90th Ave N

Unnamed Creek

23

26

County Boundary

Floodplain forest

Riverine

Seasonally flooded basin

Shallow marsh

Shallow, open water

Shrub swamp

Proposed Project Features

Underbuild Alignment

Right-of-Way (80' Wide)

Replacment Poles In Wetlands

Replacment Poles

DNR River and Stream Centerlines (Stream Type)

Stream Type

Stream (Intermittent)

Ditch (Intermittent)

Site Access Wetland Impacts

Site Access Near Wetland (12 ft)

0 200 400

Feet

N

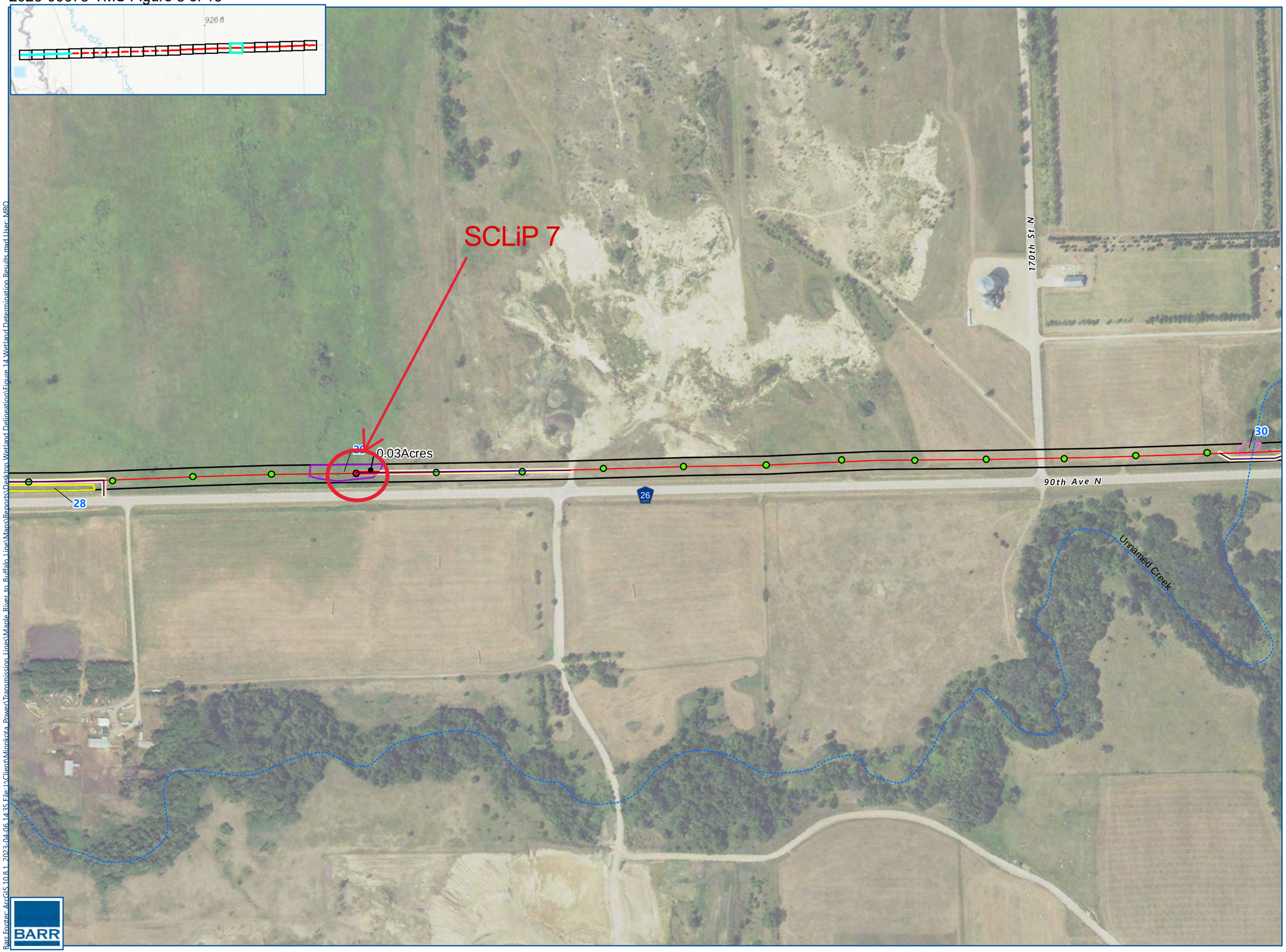
Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-16

BARR

Barr Footer: ArcGIS 10.8.1 2023-04-06 14:35 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRO



County Boundary

Floodplain forest

Riverine

Seasonally flooded basin

Shallow marsh

Shallow, open water

Shrub swamp

Proposed Project Features

Underbuild Alignment

Right-of-Way (80' Wide)

Replacment Poles In Wetlands

Replacment Poles

DNR River and Stream Centerlines (Stream Type)

Stream Type

Stream (Intermittent)

Site Access Wetland Impacts

Site Access Near Wetland (12 ft)

0 200 400
Feet

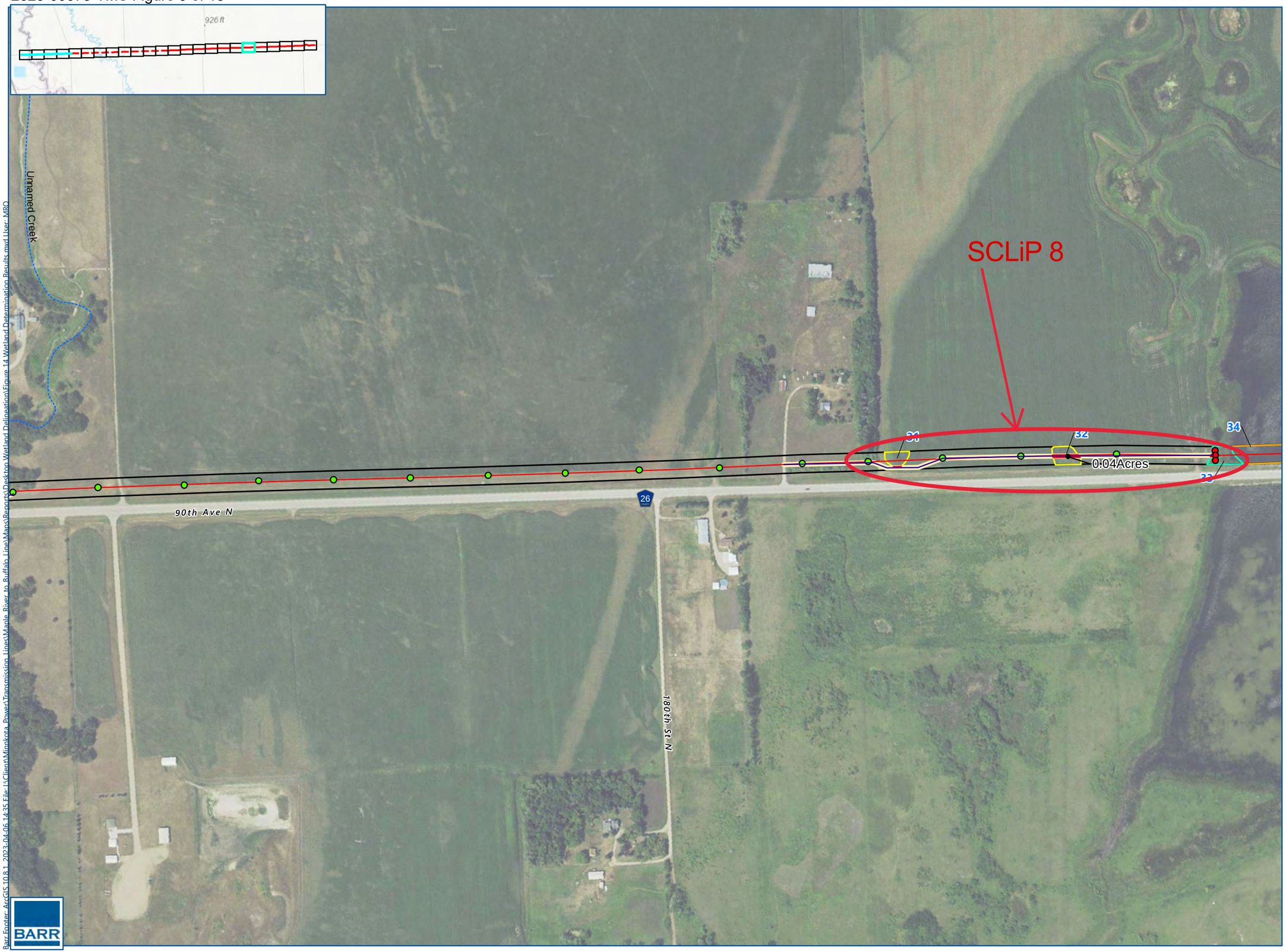
N

Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-18

Barr Footer: ArcGIS 10.8.1, 2023-04-06 14:35, File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Deskton_Wetland_Delineation\Figure 14 Wetland Determination Results.mxd User: MRO



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Underbuild Alignment
Right-of-Way (80' Wide)
Replacment Poles In Wetlands
Replacment Poles

DNR River and Stream Centerlines (Stream Type)

Stream Type

Stream (Intermittent)
Site Access Wetland Impacts
Site Access Near Wetland (12 ft)

0 200 400
Feet

N

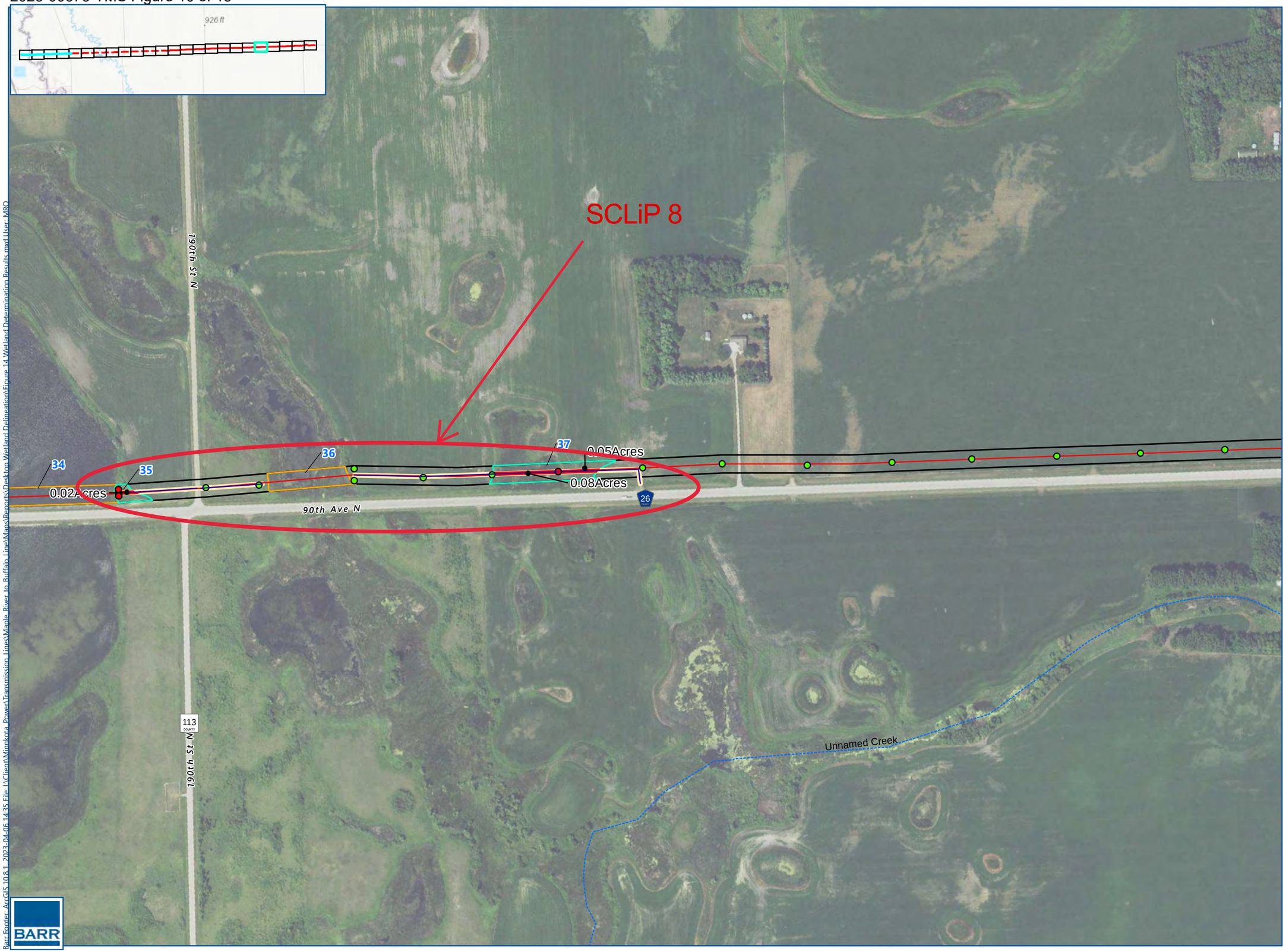
Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-19

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Barr Footer: ArcGIS 10.8.1, 2023-04-06 14:35 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop_Wetland_Delineation\Figure 14 Wetland Determination Results.mxd User: MRO



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Underbuild Alignment
Right-of-Way (80' Wide)
Replacment Poles In Wetlands
Replacment Poles

DNR River and Stream Centerlines (Stream Type)

Stream Type

Stream (Intermittent)
Site Access Wetland Impacts
Site Access Near Wetland (12 ft)

0 200 400
Feet

N

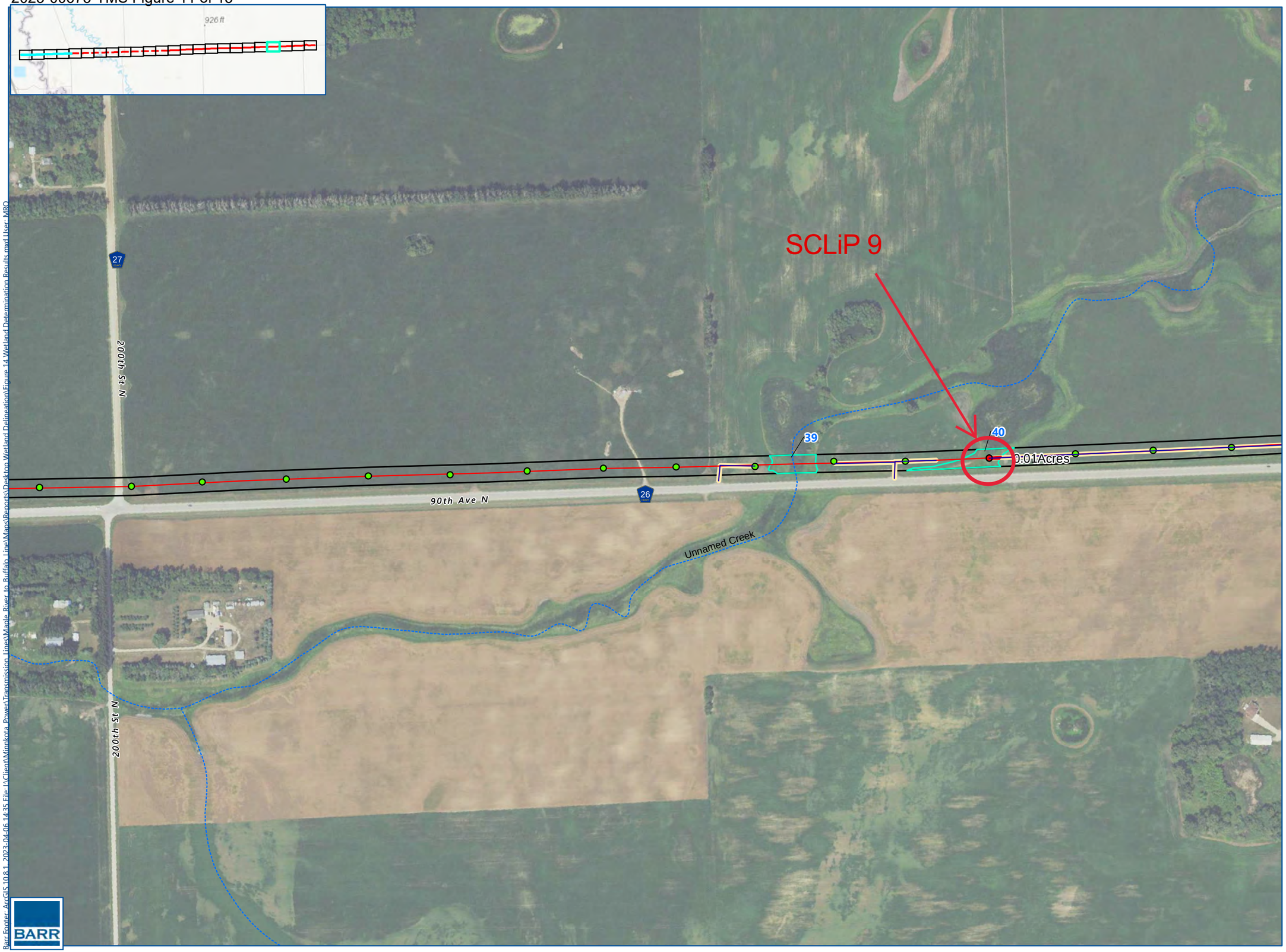
Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-20

BARR

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County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Underbuild Alignment
Right-of-Way (80' Wide)
Replacment Poles In Wetlands
Replacment Poles

DNR River and Stream Centerlines (Stream Type)

Stream Type

Stream (Intermittent)
Site Access Wetland Impacts
Site Access Near Wetland (12 ft)

0 200 400
Feet

N

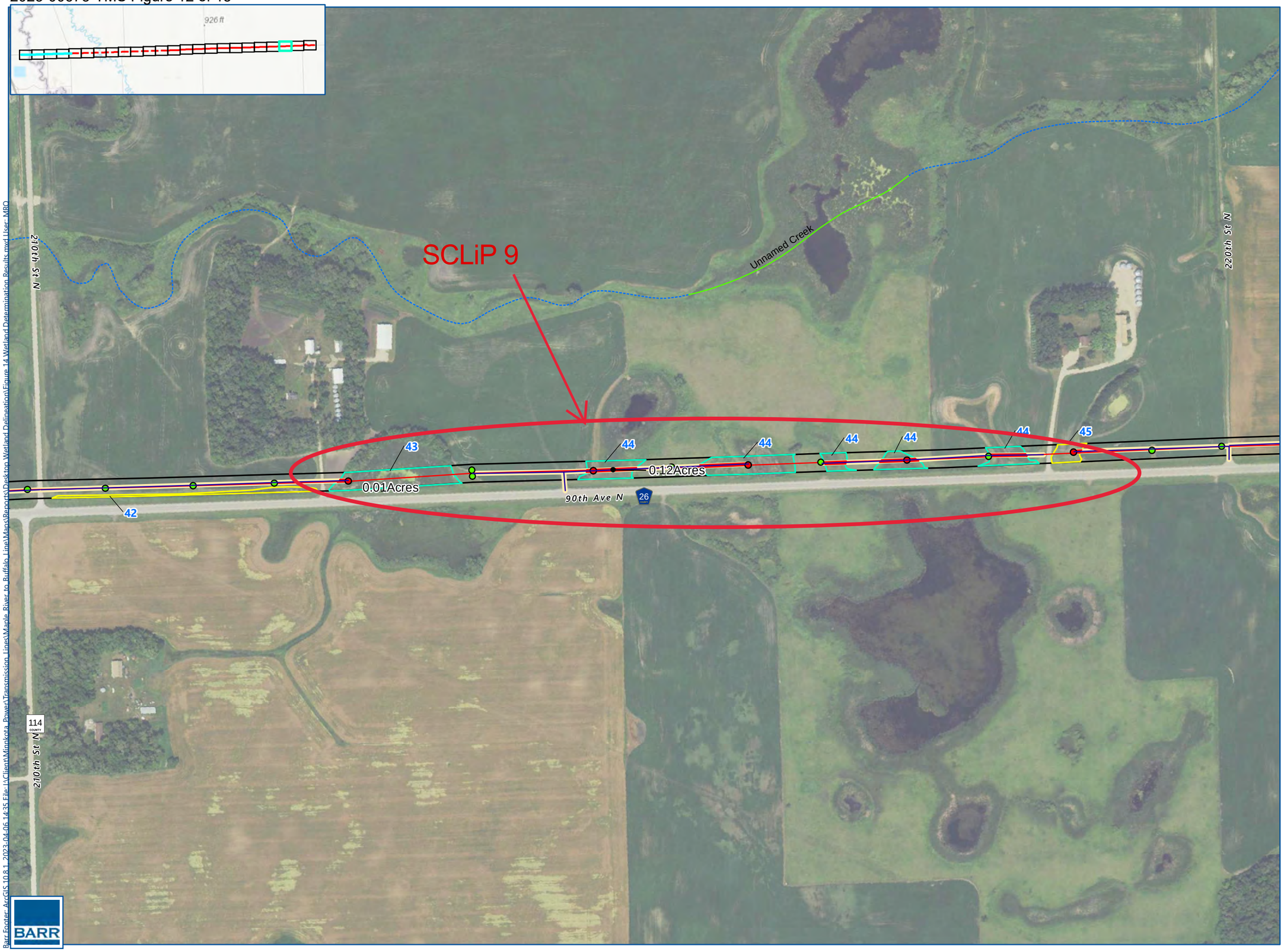
Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-21

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 14:35 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Mans\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRO



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Underbuild Alignment
Right-of-Way (80' Wide)
Replacment Poles In Wetlands
Replacment Poles

DNR River and Stream Centerlines (Stream Type)

Stream Type

Stream (Intermittent)
Wetland Connector

Site Access Wetland Impacts
Site Access Near Wetland (12 ft)

0 200 400
Feet

N

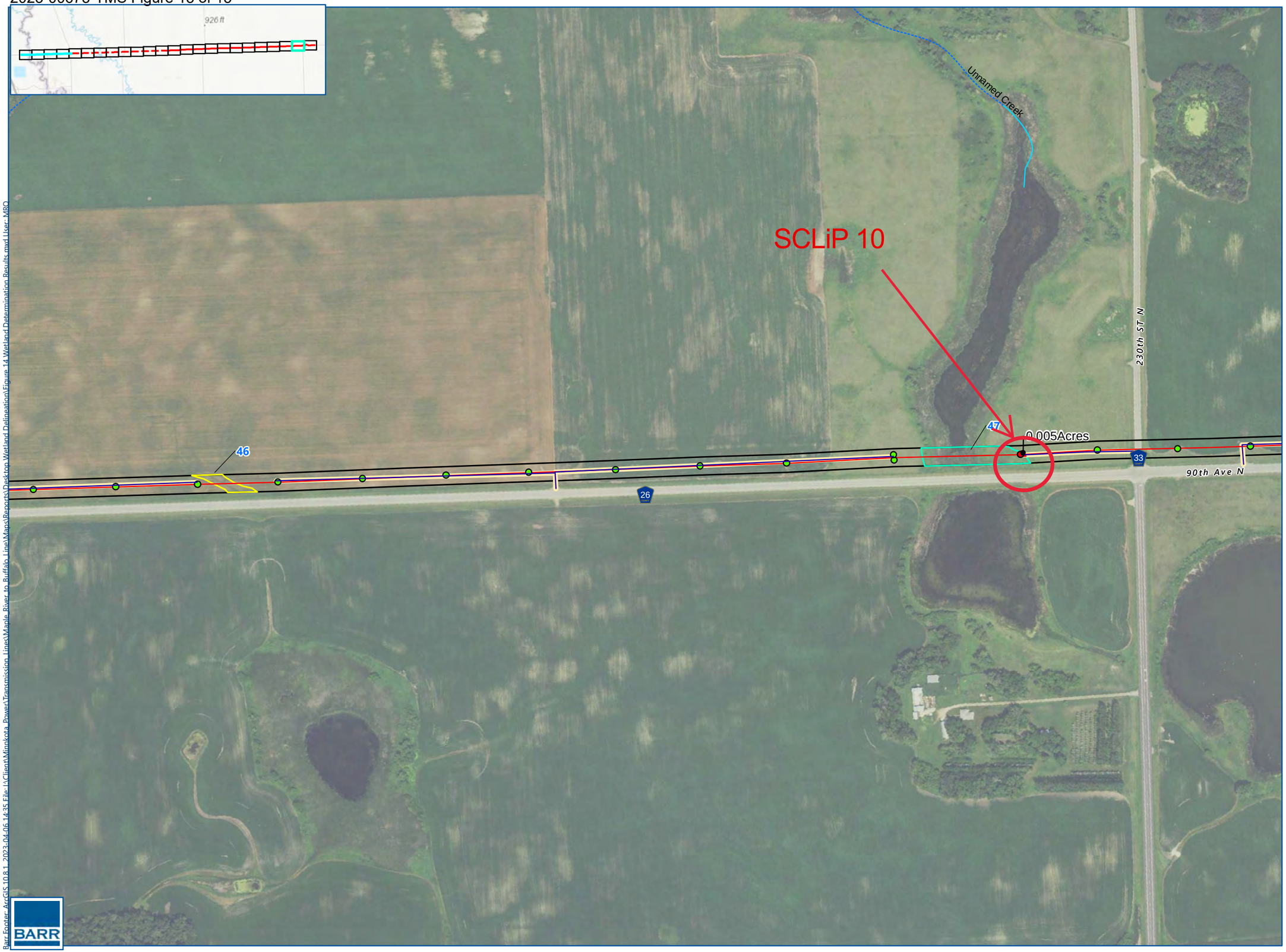
Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-22

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 14:35, File: I:\Client\Minnkota Power\Transmission Lines\Maple River to Buffalo Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd, User: MRO



County Boundary

Floodplain forest

Riverine

Seasonally flooded basin

Shallow marsh

Shallow, open water

Shrub swamp

Proposed Project Features

Underbuild Alignment

Right-of-Way (80' Wide)

Replacment Poles In Wetlands

Replacment Poles

DNR River and Stream Centerlines (Stream Type)

Stream Type

Stream (Intermittent)

Lake Connector

Site Access Wetland Impacts

Site Access Near Wetland (12 ft)

0 200 400

Feet

N

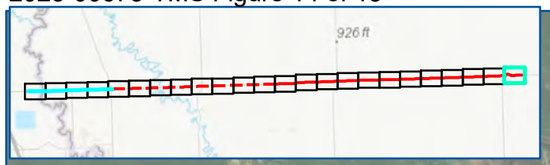
Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 1-23

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SCLiP 10

48
0.22Acres
49
49
50
51
26
90th Ave N
240th St N
240th St N

County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Underbuild Alignment
Right-of-Way (80' Wide)
Replacment Poles In Wetlands
Replacment Poles

DNR River and Stream Centerlines (Stream Type)

Stream Type

Stream (Perennial)
Stream (Intermittent)

Site Access Wetland Impacts
Site Access Near Wetland (12 ft)

0 200 400
Feet

N

Imagery: USDA FSA NAIP (2021)

WETLAND IMPACTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and Clay County, MN

FIGURE 1-24

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 14:35 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRO

Single and Complete Project	Regulated/Impacted Waters	Fill (Acres)	Pre-Construction Notification Required?
1: RGP-U	Red River (Section 10)	N/A	Yes
2: RGP-U	Wetlands 3, 4	0.30 Acre (T)	No
3: RGP-U	Wetland 10	0.01 Acre (T)	No
4: RGP-U	Wetland 15	0.02 Acre (T)	No
5: RGP-U	Wetland 17	0.00003 Acre (T)	No
6: RGP-U	Wetland 25	0.001 Acre (T)	No
7: RGP-U	Wetland 29	0.03 Acre (T)	No
8: RGP-U	Wetlands 31, 32, 33, 35, 37	0.19 Acre (T)	No
9: RGP-U	Wetlands 40, 43, 44, 45	0.14 Acre (T)	No
10: RGP-U	Wetlands 47, 48, 49	0.359 Acre (T)	No

US Army Corps of Engineers ®
St. Paul District

COMPLIANCE CERTIFICATION

Regulatory File Number: 2023-00673-TMS

Name of Permittee: Minnkota Power Cooperative, Inc.

County/State: Clay County/Minnesota and Cass County/ North Dakota

Date of Issuance: July 17, 2023

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the Corps contact identified in your verification letter within 30 days.

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

By signing below, the permittee is certifying that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the permit, and any required mitigation was completed in accordance with the permit conditions.

_____ _____

Signature of Permittee Date

US Army Corps of Engineers
St. Paul District

DEPARTMENT OF THE ARMY

UTILITY REGIONAL GENERAL PERMIT

PERMIT: Utility Regional General Permit

ISSUING OFFICE: U.S. Army Corps of Engineers, St. Paul District

EFFECTIVE DATE: February 20, 2023

EXPIRATION DATE: February 19, 2028

A. AUTHORIZATION AND APPLICABILITY

Regulated activities conducted in accordance with all applicable terms and conditions of the Utility Regional General Permit (RGP or permit) are authorized in the States of Wisconsin and Minnesota and on Indian Reservations in Wisconsin and Minnesota, excluding Section 404 activities in the following three 8-digit hydrologic unit codes (HUCs) in the Lake Superior Basin of Wisconsin: 04010301, 04010302, and 04020300. The excluded HUCs are also shown in a map attached to the end of this permit. This exclusion does not apply to Section 404 activities proposed within the exterior boundaries of the Bad River Reservation or the Red Cliff Reservation, regardless of HUC. Certain activities require an applicant to submit pre-construction notification (PCN) and receive written St. Paul District Corps of Engineers Regulatory Branch (Corps) verification prior to commencing work. Refer to the appropriate sections of this permit for a description of RGP procedures, eligible activities, conditions, exclusions, and application instructions.

1. Regulatory Authorities: Section 404 of the Clean Water Act (33 U.S.C. 1344, Section 404) for discharges of dredged and fill material into waters of the US, and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403, Section 10) for work and structures that are located in, under, or over any navigable water of the US. Activities subject to Section 404[1] and Section 10 authorization requirements are hereafter referred to as regulated activities.

2. Eligible Activities: Regulated activities associated with the five items listed below are eligible for authorization using this RGP. This RGP may be used to authorize losses and temporary impacts in waters of the US necessary to accomplish the activities listed below.
   a. Utility Lines: Regulated activities for single and complete linear projects to construct, maintain, or repair utility lines, including foundations for overhead utility line towers, poles, and anchors. This includes utility lines strung above, and routed in and under, Section 10 waters.
   b. Utility Survey Activities: Temporary regulated activities for survey projects. Survey activities include core sampling, exploratory-type bore holes, exploratory trenching, soil surveys, sampling, sample plots or transects for wetland delineations, and historic resources surveys.
   c. Substation Facilities: Regulated activities for single and complete non-linear projects required to construct, maintain, or expand substation facilities.
   d. Access Roads: Regulated activities for single and complete linear projects to construct permanent and temporary access roads necessary for the construction, repair, and maintenance of utility lines and substations, and to provide access to utility survey locations.
   e. Remediation of Inadvertent Returns of Drilling Fluid: Regulated activities necessary for the remediation of inadvertent returns of drilling fluids through sub-soil fissures or fractures that might occur during directional drilling or boring activities conducted for the purpose of installing or replacing utility lines. These remediation

1 Federal regulations at 33 CFR 323.4 include information about discharges which do not require Section 404 permits. These activities are not subject to the requirements of this RGP.

activities must be done as soon as practicable to restore the affected waterbody. The Corps may add special conditions to RGP verifications to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the US during drilling and boring activities conducted for installing or replacing utility lines.

3. Activity restrictions:
   a. Regulated activities for each single and complete project cannot cause the loss of greater than 0.5 acre of waters of the US. Where a single and complete project would result in losses to more than one aquatic resource type (e.g. wetland and tributary), this restriction is calculated as the sum for all losses to aquatic resources.
   b. Regulated activities may not cause the loss of more than 300 linear feet of tributary for any single and complete project, unless the Corps waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. An applicant may request, in writing, a waiver from the Corps. For purposes of this restriction, do not include linear ditches as defined in Section G below. Tributary losses contribute to activity restriction a. above.
   c. Regulated activities for the recovery of historic resources are not eligible for authorization as a survey activity.
   d. Regulated survey activities may not result in a loss of waters of the US.
   e. Bore holes must be properly sealed following completion of regulated survey activities.

NOTE: Pipes and pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the US are considered bridges and may require a permit from the U.S. Coast Guard pursuant to Section 9 of the Rivers and Harbors Act of 1899. Discharges of dredged and fill material into waters of the US associated with such pipes and pipelines require Section 404 authorization.

4. Pre-Construction Notification (PCN): Some activities eligible for RGP authorization require a PCN to the Corps. Please refer to Section D below for additional information regarding PCN requirements.

5. Exclusions: The following activities are INELIGIBLE for Utility RGP authorization:
   a. Regulated activities that would divert more than 10,000 gallons per day of surface or ground water into or out ofthe Great Lakes Basin.
   b. Regulated activities that may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.
   c. Regulated activities eligible for authorization under a valid Corps Special Area Management Plan (SAMP) general permit, see http://www.mvp.usace.army.mil/Missions/Regulatory/Permitting-Process-Procedures for more information on SAMPs.
   d. Regulated activities which would adversely affect public water supplies.
   e. Regulated activities, except access roads and temporary crossings required for utility line construction, repair, ormaintenance, which would enclose any portion of a non-wetland water of the US.

6. Expiration: Unless otherwise specified in the Corps letter verifying a project complies with the terms and conditions of this RGP, the time limit for completing work authorized by the permit ends upon the expiration date of the RGP. Activities authorized under this RGP that have commenced construction or are under contract to commence construction in reliance upon this RGP, will remain authorized provided the activity is completed within 12 months of the date of the RGP expiration, suspension, or revocation; whichever is sooner.

7. Section 401 Water Quality Certification: Where Section 404 activities are proposed, no RGP authorization is valid until a project proponent obtains a Clean Water Act Section 401 water quality certification (401 certification) or waiver from the appropriate water quality certifying agency; see general condition 25 in Section F below. In addition, some RGP authorizations may be subject to project-specific special conditions

that will be specified in the Corps verification letter. This RGP does not obviate the need for other necessary federal, state, tribal, or local authorizations or permits.

B. USE OF MULTIPLE GENERAL PERMITS

Single and complete non-linear projects may not be ''piecemealed'' to avoid the limits in a general permit (nationwide, programmatic, or regional general permit). For example, multiple non-linear activities may be authorized by the Utility RGP for an overall project, provided the cumulative loss of waters of the US does not exceed 0.5 acre. To illustrate this, consider three new substations associated with an overall linear utility project, where each substation is proposed to result in a loss of 0.15 acre of waters of the US. All three substations are eligible for Utility RGP authorization because the cumulative loss to waters of the US proposed is 0.45 acre, below the 0.5-acre eligibility limit.

For an overall project, non-linear single and complete projects may be authorized in conjunction with linear single and complete projects.

When general permit limits are exceeded, projects may be eligible for review and authorization by an individual permit.

C. CALCULATING IMPACTS TO WATERS OF THE UNITED STATES

1. Waters of the US may include waterbodies such as streams, rivers, lakes, ponds, and wetlands (see Definitions, Section G).
2. Loss of waters of the US is the sum of all permanently adversely affected jurisdictional waterbodies for a single and complete project. Temporary impacts to waters of the US, discussed below, are calculated separately from losses of waters of the US, and do not contribute to loss thresholds. Permanent adverse effects include filling, flooding, excavation, or drainage in waters of the US as a result of the regulated activity. Permanent adverse effects to waters of the US include regulated activities that change a waterbody to dry land, increase the bottom elevation of a waterbody, or decrease the bottom elevation of a waterbody (e.g. excavation of a sedge meadow wetland to shallow marsh), or change the use of a waterbody.
   a) Losses of wetlands must be reported in either acres or square feet, as appropriate. Regulated activities that are linear in nature must also be reported in linear feet of impact to waters of the US.
   b) Losses of tributaries, ponds, and lakes must be reported in acres or square feet and linear feet below the plane of the ordinary high water mark. If regulated activities are proposed at multiple locations, they are added together to determine the total amount of linear loss to waters of the US.
3. Temporary impacts to waters of the US include the sum of all regulated impacts to waters of the US for a single and complete project which are restored to pre-construction contours and elevations after construction. Examples of temporary impacts in waters of the US include the placement of timber matting, installation of coffer dams, trenching and backfilling, and in many cases, mechanized land-clearing[2].
   a) Temporary impacts to wetlands must be reported in either acres or square feet, as appropriate. Regulated activities that are linear in nature must also be reported in linear feet of impact to waters of the US.
   b) Temporary impacts to tributaries, ponds, and lakes must be reported in acres or square feet and linear feet below the plane of the ordinary high water mark. If regulated activities are proposed at multiple locations, temporary impacts must be added together to determine the total amount of temporary linear impact.
4. Losses and temporary impacts to waters of the US do not include:
   a) Activities that do not require Department of the Army authorization, such as activities eligible for exemptions under Section 404(f) of the Clean Water Act.
   b) Impacts to linear ditches as defined in Section G, provided the ditch does not abut a wetland. Sections of linear ditches in or abutting wetlands do contribute to loss and temporary impact thresholds.

[2] Refer to the definition of Discharge in Section G of this RGP.

5. The measurements of loss and temporary impact to waters of the US are for determining whether a project may qualify for the RGP and are not reduced by compensatory mitigation.

D. PRE-CONSTRUCTION NOTIFICATION (PCN) INFORMATION

Projects that meet the terms and conditions of this RGP and do not require pre-construction notification, as outlined below, may commence work after project proponents have carefully confirmed that the activity will be conducted in compliance with all applicable terms and conditions of the RGP.

For all activities which require PCN, project proponents must obtain written Corps verification of RGP coverage before starting regulated work. The PCN must include all other nationwide permits, programmatic general permits, RGPs, or individual permits used or intended to be used to authorize any part of the overall linear and non-linear project (including all single and complete projects), including regulated activities that require Corps authorization but do not require PCN.

Reporting requirement: For overall projects (defined in Section G) that do not require a PCN, but would result in the cumulative loss of 0.5 acre or greater of waters of the US, project proponents are required to report the overall project to the Corps. The project proponent must minimally provide items 1 through 6 below (Form and Content of PCN) to the Corps at least 30 days prior to starting work. Project proponents do not have to wait for written verification of coverage unless notified by the Corps.

PCN is required for regulated activities proposed in these Aquatic Resources[1]:

1. Section 10 waters;
2. State-designated wild rice waters[3, 4];
3. Bogs and fens[3, 5];
4. Apostle Islands National Lakeshore and Madeline Island (WI only);
5. Coastal plain marshes, interdunal wetlands, and Great Lakes ridge and swale complexes (WI only)[1];
6. Wetland sites designated by the Ramsar Convention (as of the date of publication, these include: the Horicon Marsh, Upper Mississippi River Floodplain wetlands, Kakagon and Bad River Sloughs, Door County Peninsula Coastal wetlands, Chiwaukee Illinois Beach Lake Plain, and Lower Wisconsin Riverway), see https://rsis.ramsar.org/ (WI only).
7. State and Tribal waters identified as 1) Areas of Special Natural Resources Interest Outstanding and Exceptional Streams (WI), 2) Outstanding Resource Value Waters Prohibited and Restricted Streams (MN), 3) Exceptional Aquatic Life Use waters (MN), or 4) Bad River Outstanding Tribal Resource Waters, Outstanding Resource Waters, and Exceptional Resource Waters (WI)[6]

PCN is required for the following activities to comply with other federal laws:

1. Regulated activities which might affect any federally-listed threatened, endangered, or proposed threatened and endangered species, designated critical habitat, or proposed critical habitat unless ESA Section 7 consultation addressing the effects of the proposed activity has been completed by a federal applicant or lead federal agency.
2. Regulated activities which might have the potential to cause effects to any historic properties listed on,

3 Information about Wisconsin plant community types may be obtained from at http://dnr.wi.gov/topic/EndangeredResources/Communities.asp?mode=group&Type=Wetland.

4 Information regarding wild rice waters and their extent may be obtained from at https://www.dnr.state.mn.us/wildlife/shallowlakes/wildrice.html and https://gisdata.mn.gov/dataset/biotawild-rice-lakes-dnr-wld in Minnesota, https://dnr.wisconsin.gov/topic/wildlifehabitat/rice.html in Wisconsin, and an interactive map is provided at: http://maps.glifwc.org/ (under Treaty Resources – Gathering).

5 Additional information on bog and fen communities can be found at http://www.mvp.usace.army.mil/missions/regulatory.aspx and in Minnesota at http://www.dnr.state.mn.us/npc/classification.html.

6 Information about WI ASNRI waters can be found at https://dnr.wisconsin.gov/topic/SurfaceWater/swdv. Information about MN ORVW and Exceptional AQL waters can be found at https://www.pca.state.mn.us/business-with-us/water-quality-standards and https://mpca.maps.arcgis.com/apps/webappviewer/index.html?id=4642533a988b40adb63a0138b5f1d439. Information about Bad River waters can be found at https://www.arcgis.com/apps/View/index.html?appid=6f44c371217e4ee8b5f1c2c705c7c7c5.

determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties unless the requirements of Section 106 of the NHPA have been satisfied by a federal applicant or lead federal agency.

3. Regulated activities which may result in disturbance or removal of human remains.
4. Regulated activities which require permission from the Corps pursuant to Section 408 because it will alter or temporarily or permanently occupy or use a Corps federally authorized civil works project.
5. Regulated activities in or which may affect the National Wild and Scenic River System, including designated portions of the St. Croix River in Minnesota and Wisconsin and the Wolf River in Wisconsin, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status.

Other activities which require PCN include:

1. All single and complete regulated activities, excluding overhead lines and construction matting, which exceed 500 linear feet in non-tributary waters of the US.
2. All single and complete projects where the regulated activity would result in the loss of greater than 0.1 acre of waters of the US.
3. All single and complete projects where the temporary impacts are proposed to impact 0.5 acre or greater of waters of the US, including wetlands.
4. Regulated activities associated with mechanized land-clearing that exceeds 400 square feet in shrub or forested waters of the US.
5. Utility lines installed via trenching within a water of the United States, where the utility line runs parallel to or along a tributary contiguous with the water of the US trenched. Linear ditches (see Definitions, Section G) are not subject to this PCN requirement.
6. Regulated activities in areas of suspected sediment or soil contamination, including but not limited to Superfund sites. Superfund sites in Minnesota or Wisconsin can be located by searching the EPA's website: https://www.epa.gov/superfund/search-superfund-sites-where-you-live.
7. Regulated activities impacting bridges, structures, and sunken vessels more than 50 years old, unless already determined ineligible for listing on National Register of Historic Places. Culverts that are constructed using pre-cast concrete, cast-in-place concrete, or corrugated metal are not subject to this PCN requirement.
8. Regulated temporary impacts remaining in place for longer than 90 days between May 15 and November 15.
9. All regulated activities which require a waiver to be eligible for authorization by the Utility RGP. The Utility RGP allows waivers only for the following two regulated activities: a waiver to exceed the listed 300 linear foot tributary loss; and a waiver for duration of temporary impacts (see Section F. General Conditions).

Timing of PCN: Where required by the terms of this RGP, the prospective permittee must notify the Corps by submitting a PCN as early as possible. The Corps will determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30-day period to request the additional information necessary to make the PCN complete. Generally, the Corps will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the Corps will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the Corps.

The prospective permittee shall not begin the activity until they are notified in writing by the Corps that the activity may proceed under the RGP with any special conditions imposed by the Corps.

Form and Content of PCN: The PCN must be in writing and should utilize the Minnesota Joint Waters Wetlands Application, WI DNR application, or the Corps Application for Department of the Army Permit Form ENG 4345. A letter containing the required information may also be used. A complete PCN must include:

1. Contact information including the name, mailing address, email address, and telephone numbers of the

prospective permittee and any third party agents.

2. Location of the proposed activity (i.e. section-township-range and latitude and longitude in decimal degrees).
3. A description of the proposed activity and its purpose; a description of any avoidance and minimization mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any and all other general or individual permits used or intended to be used to authorize any part of the overall project, including activities that require Corps authorization but do not require PCN.
4. A tabulation of all impacts to waters of the US, including the anticipated amount of loss and temporary impact to waters of the US expected to result from the proposed activity. For the Utility RGP, all PCNs must additionally report conversions of wooded (shrub and forested) communities in waters of the US. Conversion reporting in waters of the US must distinguish permanent conversion from areas proposed to regenerate, and must clarify which conversions proposed would, and would not, incorporate a regulated activity in waters of the US. Impacts to all waters of the US must be reported in acres or square feet. In addition, tributary, pond, and lake impacts must also be reported in linear feet. A table may be used to clearly and succinctly disclose this information (see Calculating Impacts to Water of the United States, Section C).
5. Sketches, maps, drawings, and plans must be provided to show that the activity complies with the terms of the RGP. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity. Large and small-scale maps must be provided to show the project site location. Drawings and plans should be to scale, with scale bar included, and depict all identified aquatic resources and aquatic resource impact areas, including plan-view drawings on a recent aerial photograph, and cross-section and profile drawings where appropriate.
6. Identification of all aquatic resources on the project site and the acreage of each aquatic resource present. Aquatic resources shall be identified by type (e.g. wetland, tributary, lake, man-made ditch, pond, etc.) and impacts shall be identified by type (e.g. fill, excavation, etc.) and permanence (permanent or temporary). A wetland delineation may be required.
7. A statement describing how compensatory mitigation requirements will be satisfied, or an explanation why compensatory mitigation should not be required. See Mitigation, Section E for more information.
8. If the proposed project would impact a calcareous fen, the PCN must include a copy of the WI DNR authorization for the proposed regulated activity, or a copy of the approved MN DNR calcareous fen management plan specific to the project.
9. If any federally-listed threatened or endangered species (or species proposed for listing) or proposed or designated critical habitat might be affected or is in the vicinity of the regulated activity, the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. Federal applicants or applicants that have federal funding (or whose project otherwise involves a lead federal agency) must provide documentation demonstrating compliance with ESA Section 7.
10. If the activity might have the potential to cause effects to an historic property listed on, eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity and include a vicinity map indicating the location of the historic property. Federal applicants or applicants that have federal funding (or whose project otherwise involves a lead federal agency) must provide documentation demonstrating compliance with Section 106 of the NHPA.
11. If an activity is proposed in or might affect a component of the National Wild and Scenic River System (including designated portions of the St. Croix River in Minnesota and Wisconsin and the Wolf River in Wisconsin) or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river."
12. The PCN must specify how long temporary impacts and structures will remain in place and include a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions (see general conditions 14 and 15).
13. If a waiver from for a specific condition of the permit is proposed, the PCN must include an explanation of the need

for a waiver and why the applicant believes the impacts would result in minimal individual and cumulative adverse environmental effects. The Utility RGP includes a waiver for Condition 15 (duration of temporary impacts) and the 300 linear foot tributary threshold.

14. For an activity that requires permission from, or review by, the Corps pursuant to Section 408 because it will alter or temporarilyor permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the PCN must include a statement confirming if the project proponent has submitted a written request for Section 408 permission from, or review by, the Corps office having jurisdiction over the Corps civil works project.

Agency Coordination: Agency coordination is required for activities which require a waiver to exceed the listed 300 linear foot tributary loss for any single and complete project. When agency coordination is required, the district engineer will immediately provide a copy of the complete PCN to the appropriate Federal, state, or tribal offices (EPA, FWS, state and tribal natural resource or water quality agency). Agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the PCN. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency. The district engineer will indicate in the administrative record associated with each PCN that the resource agencies' concerns were considered.

Tribal Coordination: Tribal coordination is required for all activities which require PCN and are located within the exterior boundaries of federally recognized Indian reservations. When tribal coordination is required, the district engineer will immediately provide a copy of the complete PCN to the affected tribe. The tribe will have 10 calendar days from the date the material is transmitted to notify the district engineer that they intend to provide substantive, site-specific comments. If contacted by the affected tribe, the district engineer will wait an additional 15 calendar days before making a decision on the PCN. The district engineer will fully consider the tribe's comments received within the specified time frame concerning the proposed activity. The district engineer will indicate in the administrative record associated with each PCN how the tribe's concerns were considered.

E. MITIGATION

In accordance with the Federal Mitigation Rule (33 CFR part 332), the Section 404(b)(1) guidelines (40 CFR part 230), and current Corps policies, guidelines, and procedures for compensatory mitigation, regulated activities must be designed and constructed to avoid and minimize (mitigate) adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site). Mitigation includes actions which may avoid, minimize, rectify, reduce, or compensate for adverse environmental effects or activities which may otherwise be contrary to the public interest. Regulated activities which the Corps believes do not mitigate adverse environmental effects or are contrary to the public interest are ineligible for authorization by this RGP and will be evaluated by the Corps using individual permit procedures.

After all practicable steps to avoid and minimize adverse effects to waters of the US have been considered, the Corps may require compensatory mitigation to ensure that the regulated activity results in no more than minimal adverse environmental effects or will not be contrary to the public interest. In reviewing the complete PCN for the proposed activity, the Corps will determine whether the activity authorized by the RGP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. The Corps will issue the RGP verification for that activity if it meets the terms and conditions of the RGP, unless the Corps determines, after considering compensatory mitigation, that the proposed activity will result in more than minimal individual and

cumulative adverse effects on the aquatic environment and other aspects of the public interest. When this occurs, the Corps will exercise discretionary authority to require an individual permit evaluation for the proposed regulated activity.

Regulated activities eligible for this RGP must include a statement describing how compensatory mitigation requirements will be satisfied, or an explanation why compensatory mitigation should not be required for proposed impacts to waters of the US. Project proponents may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the project proponent must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of the current Corps policies, guidelines, procedures, and 33 CFR 332 (the Mitigation Rule).

Information regarding current Corps policies and guidelines about compensatory mitigation in Minnesota and Wisconsin may be viewed online at www.mvp.usace.army.mil/Missions/Regulatory/Mitigation. Information regarding existing banks and in-lieu fee programs is available online at www.ribits.usace.army.mil. Nationally applicable information, including the Mitigation Rule, may be read online at http://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/mitig_info/.

F. GENERAL CONDITIONS

To qualify for this RGP authorization, the prospective permittee must comply with the following conditions, as applicable, in addition to any project-specific special conditions imposed by the Corps.

1. Compliance:
   a. The permittee is responsible for ensuring that whoever performs, supervises, or oversees any portion of the physical work associated with the construction of the project has a copy of and is familiar with all the terms and conditions of the RGP and any special (permit-specific) conditions included in any written verification letter from the Corps.
   b. The activity must also comply with any special conditions added by the state, tribe, or U.S. EPA in its Section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination. The permittee is ultimately responsible for ensuring compliance with all the terms and conditions of the RGP.
   c. Any authorized structure or fill must be properly maintained, including maintenance to ensure public safety and compliance with applicable RGP general conditions, as well as any activity-specific conditions added by the Corps to an RGP authorization.
2. Compliance Certification: Each permittee who receives an RGP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The Corps will provide the permittee the certification document with the RGP verification letter. The completed certification document must be submitted to the Corps within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.
3. Site Inspection: The permittee shall allow representatives from the Corps to inspect the proposed project site and the authorized activity to ensure that it is being, or has been, constructed and maintained in accordance with the RGP authorization.
4. Migratory Birds and Bald and Golden Eagles: The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service (FWS) to determine applicable measures to reduce impacts to migratory birds or eagles, including whether “incidental take” permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.
5. Endangered Species:
   a. No activity is authorized under this RGP which is likely to directly or indirectly jeopardize the continued

existence of a federally threatened or endangered species or a species proposed for such designation, as identified under the Endangered Species Act (ESA), 50 CFR 402, or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under the Utility RGP which "may affect" a listed species or critical habitat, unless ESA Section 7 consultation addressing the effects of the proposed activity has been completed, and a Corps RGP verification letter is issued. Direct effects are the immediate effects on listed species and critical habitat caused by the RGP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the RGP activity and are later in time, but still are reasonably certain to occur.

b. As a result of formal or informal consultation with the FWS, the Corps may add species-specific permit conditions to the RGP verification.
c. Information on the location of federally threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS on their web page at www.fws.gov/ipac.

6. Calcareous Fens: The permittee may not complete regulated activities in a calcareous fen, unless the Wisconsin Department of Natural Resources has authorized the proposed regulated activity, or the Minnesota Department of Natural Resources has approved a calcareous fen management plan specific to the project. A list of known Minnesota calcareous fens can be found at: http://files.dnr.state.mn.us/eco/wetlands/calcareous_fen_list.pdf. Information about calcareous fens in Wisconsin can be found at http://dnr.wi.gov/topic/EndangeredResources/Communities.asp?mode=group&Type=Wetland.
7. Wild and Scenic Rivers: The permittee may not complete regulated activities which may affect or are located in a designated portions of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.
8. Historic Properties, Cultural Resources:
   a. No activity which may affect historic properties listed or potentially eligible for listing on the National Register of Historic Places is authorized until the requirements of Section 106 of the National Historic Preservation Act (Section 106) have been satisfied. Federal project proponents should follow their own procedures for complying with the requirements of Section 106 and provide documentation of compliance with those requirements.
   b. Information on the location and existence of historic and cultural resources can be obtained from the State Historic Preservation Office, Tribal Historic Preservation Offices, and the National Register of Historic Places.
   c. Rock or fill material used for activities authorized by this permit must either be obtained from existing quarries or, if a new borrow site is excavated to obtain fill material, the Corps must be notified prior to the use of the new site to determine whether a cultural resources survey of the site is necessary.
9. Discovery of Previously Unknown Remains and Artifacts: If any previously unknown historic, cultural, or archeological remains and artifacts are discovered while accomplishing the activity authorized by this permit, the permittee must immediately notify the Corps of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The Corps will initiate the federal, tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places
10. Burial Sites: Burial sites, marked or unmarked, are subject to state law (Wisconsin Statute 157.70 and Minnesota Statutes 306 and 307.08). Native American burial sites on federal or tribal land are subject to the provisions of Native American Graves Protection and Repatriation Act (NAGPRA). Regulated activities may not result in disturbance or removal of human remains until disposition of the remains has been determined by the appropriate authority under these laws, and the work is authorized by the Corps. Regulated activities which result in an inadvertent discovery of human remains must stop immediately, and the Corps, as well as the appropriate state and tribal authority, must be notified. Regulated work at inadvertent discovery sites requires compliance with state law and NAGPRA, as appropriate, prior to re-starting work.

11. Federally Authorized Corps Civil Works projects: A permittee is not authorized to begin any regulated activities described in this RGP if activities will alter or temporarily or permanently occupy or use a Corps federally authorized civil works project, unless the appropriate Corps office issues Section 408 permission to alter, occupy, or use the Corps civil works project (pursuant to 33 U.S.C. 408), and the Corps issues written a Utility RGP verification. Examples of federal projects include, but are not limited to, works that were built by the Corps and are locally maintained (such as local flood control projects) or operated and maintained by the Corps (such as locks and dams).
12. Safety of Impoundment Structures: To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.
13. Suitable Material: No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).
14. Restoration of Temporary Impacts: All temporary impacts in waters of the US, including discharges resulting from side casting material excavated from trenching, that occur as a result of the regulated activity must be fully contained with appropriate erosion control or containment methods, be restored to pre-construction contours and elevations, and, as appropriate, revegetated with native, non-invasive vegetation, unless otherwise conditioned in a Corps RGP verification. All temporary access roads constructed in waters of the US must be properly bridged or culverted to maintain surface flows. In temporarily excavated wetlands, the top 6 to 12 inches of the excavation should normally be backfilled with topsoil originating from the wetland. No temporary excavation area, including, but not limited to trenches, may be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a French drain effect).
15. Duration of Temporary Impacts: Temporary impacts in waters of the U.S., including wetlands, must be avoided and limited to the smallest area and the shortest duration required to accomplish the project purpose.
    a. Unless otherwise conditioned in a Corps RGP verification, temporary impacts may not remain in place longer than 90 days between May 15 and November 15. Before those 90 days have elapsed, all temporary discharges must be removed in their entirety.
    b. If the temporary impacts would remain in place for longer than 90 days between May 15 and November 15, the PCN must include a request for a waiver from this condition and specify how long temporary impacts will remain and include a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions. The permittee must remove the temporary impacts in their entirety in accordance with the activity authorized their permit verification.
16. Best Management Practices (BMPs): To minimize adverse effects from soil loss and sediment transport that may occur as a result of the authorized work, appropriate BMPs must be implemented and maintained. For authorizedwork above an OHWM the BMPs must remain in place until the affected area is stabilized with vegetation or ground cover. For all authorized work below an OHWM, BMPs are required and must prevent or minimize adverse effects (e.g., total suspended solids or sedimentation) to the water column outside of the authorized work area. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance. All BMPs must be inspected and properly maintained following storm events to ensure they are operational. All exposed slopes and stream banks must be stabilized within 24 hoursafter completion of all tributary crossings.
17. Culverts and Crossings: Unless an RGP verification authorizes otherwise, replacement and installation of culverts or crossings authorized by an RGP are to follow (or be restored to) the natural alignment and profile of the tributary. The culverts or bridges must adequately pass low flow and bankfull events, bedload, sediment load, and provide site-appropriate fish and wildlife passage. Example design elements include recessing single culverts to accommodate natural bankfull width and adjusting additional culvert inverts at an elevation higher than the bankfull elevation.

18. Aquatic Life Movements: No regulated activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic resources. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.
19. Spawning Areas: Activities in spawning areas, during spawning seasons, must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial sedimentation) of a designated or known spawning area are not authorized.
20. Hard Armoring: For RGP categories that allow for the use of hard armoring for bank stabilization, only suitable material must be used and be of a size and configuration sufficient to prevent its movement from the authorized alignment by natural forces under normal or high flows.
21. Pollutant or Hazardous Waste Spills: The permittee is responsible for removing pollutants and hazardous materials and for minimizing any contamination resulting from a spill in accordance with all applicable state, tribal, and federal laws. In accordance with applicable state, tribal, and federal laws and regulations, if a spill of any potential pollutant or hazardous waste occurs, it is the responsibility of the permittee to immediately notify the National Response Center at 1-800-424-8802 or nrc.uscg.mil AND
    IN WISCONSIN: the WI DNR Spills Team at 1-800-943-0003; or
    IN MINNESOTA: the Minnesota State Duty Officer at 1-800-422-0798.
22. Clean Construction Equipment: To prevent the spread of invasive species, all construction equipment must be clean prior to entering and before leaving the work site.
23. Navigation:
    a. No activity may cause more than a minimal adverse effect on navigation.
    b. Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the US.
    c. For activities subject to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), the permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
24. Fills Within 100-Year Floodplains: The regulated activity must comply with applicable FEMA-approved state or local floodplain management requirements.
25. Section 401 Clean Water Act, Water Quality Certification: All regulated activities authorized by the Utility RGP pursuant to Section 404 of the Clean Water Act require Section 401 Clean Water Act certification or waiver to be considered valid.
26. Minimum Clearances for Aerial Lines over Navigable Waters: Utility lines consisting of aerial electric power transmission lines crossing navigable waters of the U.S. (which are defined at 33 CFR part 329) must comply with the applicable minimum clearances specified in 33 CFR 322.5(i).
27. Minimum Depths for Utility Lines under Federally-Maintained Channels: Unless otherwise conditioned in a Corps Utility RGP verification letter, all utility line crossings of federally-maintained channels (i.e., the Mississippi River) will be buried at least six (6) feet below the allowable over depth of the authorized channel, including all side slopes.
28. Overhead Utility Line Foundations: Foundations proposed for overhead utility lines must be the minimum size necessary and separate footings for each tower leg (rather than a large single pad) must be used where practicable.
29. Remediation of Inadvertent Returns of Drilling Fluid: When an inadvertent return of drilling fluids is suspected or

detected in a regulated water of the U.S. the contractor shall suspend all drilling operations at the return site immediately. Work shall be undertaken immediately to contain and clean-up the inadvertent drilling fluid and minimize further migration of the drilling fluids/slurry in waters of the US. All inadvertent return sites located in waters of the U.S. shall be returned to pre-project conditions pursuant to Conditions 14 and 15. Notification must be provided consistent with Condition 21. Notification of inadvertent returns in waters of the US must also include notification to the Corps, but it does not require Utility RGP verification prior to commencing remediation work.

30. Transfer of Regional General Permit Verifications: If the permittee sells the property associated with a regional general permit verification, the permittee may transfer the regional general permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the regional general permit verification must be attached to the letter, and the letter must contain the following statement and signature "When the structures or work authorized by this regional general permit are still in existence at the time the property is transferred, the terms and conditions of this regional general permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this regional general permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____
(Transferee)

_____
(Date)

G. DEFINITIONS

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.
Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.
Direct effects: Effects that are caused by the regulated activity and occur at the same time and place.
Discharge: The term discharge of dredged material is defined at 33 CFR 323.2(d) and the term discharge of fill material is defined at 33 CFR 323.2(f).
Exploratory trenching: Temporary excavation of the upper soil profile to expose bedrock or substrate, for the purpose of mapping or sampling the exposed material.
Historic property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe and that meet the National Register criteria (36 CFR part 60).
Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.
Indirect effects: Effects that are caused by the regulated activity and are later in time or farther removed in distance but are stillreasonably foreseeable.
Linear ditch: A defined channel constructed adjacent to a linear transportation facility (e.g., roads, highways, railways,

trails, airport runways, and taxiways, etc.) to convey runoff from the linear facilities and from areas which drain toward the linear facilities. The term linear ditch does not include natural tributaries, relocated natural tributaries, or modified natural tributaries.

Navigable waters: Waters subject to Section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Ordinary high water mark (OHWM): An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas.

Overall project: The aggregate of all single and complete projects related to the same purpose, including linear and non-linear projects with regulated losses and temporary impacts to waters of the US.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification (PCN): A request submitted by the project proponent to the Corps for confirmation that a particular activity is verified by a general permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. PCN may be required by the terms and conditions of this regional general permit.

Protected tribal resources: Those natural resources and properties of traditional or customary religious or cultural importance, either on or off Indian lands, retained by, or reserved by or for, Indian tribes through treaties, statutes, judicial decisions, or executive orders, including tribal trust resources.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term “single and complete project” is defined as that portion of the overall linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the US (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of this general permit authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately. The definition of “single and complete linear project” does not include theterm “independent utility” because each crossing of waters of the US is needed for the single and complete linear project to fulfill its purpose of transporting people, goods, and services from the point of origin to the terminal point.

Single and complete non-linear project: For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the overall project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility. Single and complete non-linear projects may not be “piecemealed” to avoid the limits in an RGP authorization. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tribal lands: Any lands which are either: 1) held in trust by the United States for the benefit of any Indian tribe or individual; or 2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Tributary: For purposes of this RGP, a water that contributes flow, either directly or through another water to a

traditionally navigable water or interstate water (including wetlands) and that is characterized by the presence of the physical indicators of bed and banks and ordinary high water mark. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches.
Utility line: Any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose not excluded herein, and any cable, line, or wire for the transmission of electrical energy, telephone, and telegraph messages, and internet, radio, and television communication. The term utility line does not include activities that drain a water of the United States, such as drainage tile or French drains. The term also excludes pipes and culverts for residential, commercial, industrial, agricultural, recreational, or other developments associated with driveways, roadways, lots, and storm water ponds.
Waiver: An approval from the Corps which allows an applicant to exceed the activity restrictions or conditions described in an RGP. Waivers may only be considered when expressly indicated as available in an RGP and will only be granted once the Corps has made a written determination that the RGP activity will result in only minimal individual and cumulative adverse environmental effects. When a waiver is required, an applicant cannot start work until they have received an RGP verification letter with waiver approval.
Waterbody: For purposes of this RGP, a waterbody is a jurisdictional water of the US. Examples of "waterbodies" include streams, rivers, lakes, ponds, and wetlands.

H. FURTHER INFORMATION

1. Congressional authorities: The permittee has been authorized to undertake the activity described above pursuant to Section 404 of the Clean Water Act (33 U.S.C 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
2. The Corps retains discretionary authority to require an individual permit for any activity eligible for authorization by an RGP based on concern for the aquatic environment or for any other factor of the public interest.
3. Limits of this authorization:
    a. This RGP does not obviate the need to obtain other federal, state, or local authorizations required by law;
    b. This RGP does not grant any property rights or exclusive privileges;
    c. This RGP does not authorize any injury to the property or rights of others; and
    d. This RGP does not authorize interference with any existing or proposed federal project.
4. Limits of federal liability: In issuing this permit, the Federal Government does not assume any liability for the following:
    a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes;
    b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest;
    c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit;
    d. Design or construction deficiencies associated with the permitted work; or
    e. Damage claims associated with any future modification, suspension, or revocation of this permit.
5. Reliance on permittee's data: The determination of this office that an activity is not contrary to the public interest will be made in reliance on the information provided by the project proponent.
6. Re-evaluation of decision: This office may reevaluate its decision for an individual verification under this general permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
    a. The permittee fails to comply with the terms and conditions of this permit;
    b. The information provided by the permittee in support of the pre-construction notification proves to have been false, incomplete, or inaccurate (See 5 above); or
    c. Significant new information surfaces which this office did not consider in reaching the original decision. Such

a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring the permittee to comply with the terms and conditions of their permit and for the initiation of legal action where appropriate. The permittee will be required to pay for any corrective measures ordered by this office, and if the permittee fails to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill the permittee for the cost.

7. This office may also reevaluate its decision to issue this Utility RGP at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, significant new information surfaces which this office did not consider in reaching the original public interest decision. Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.

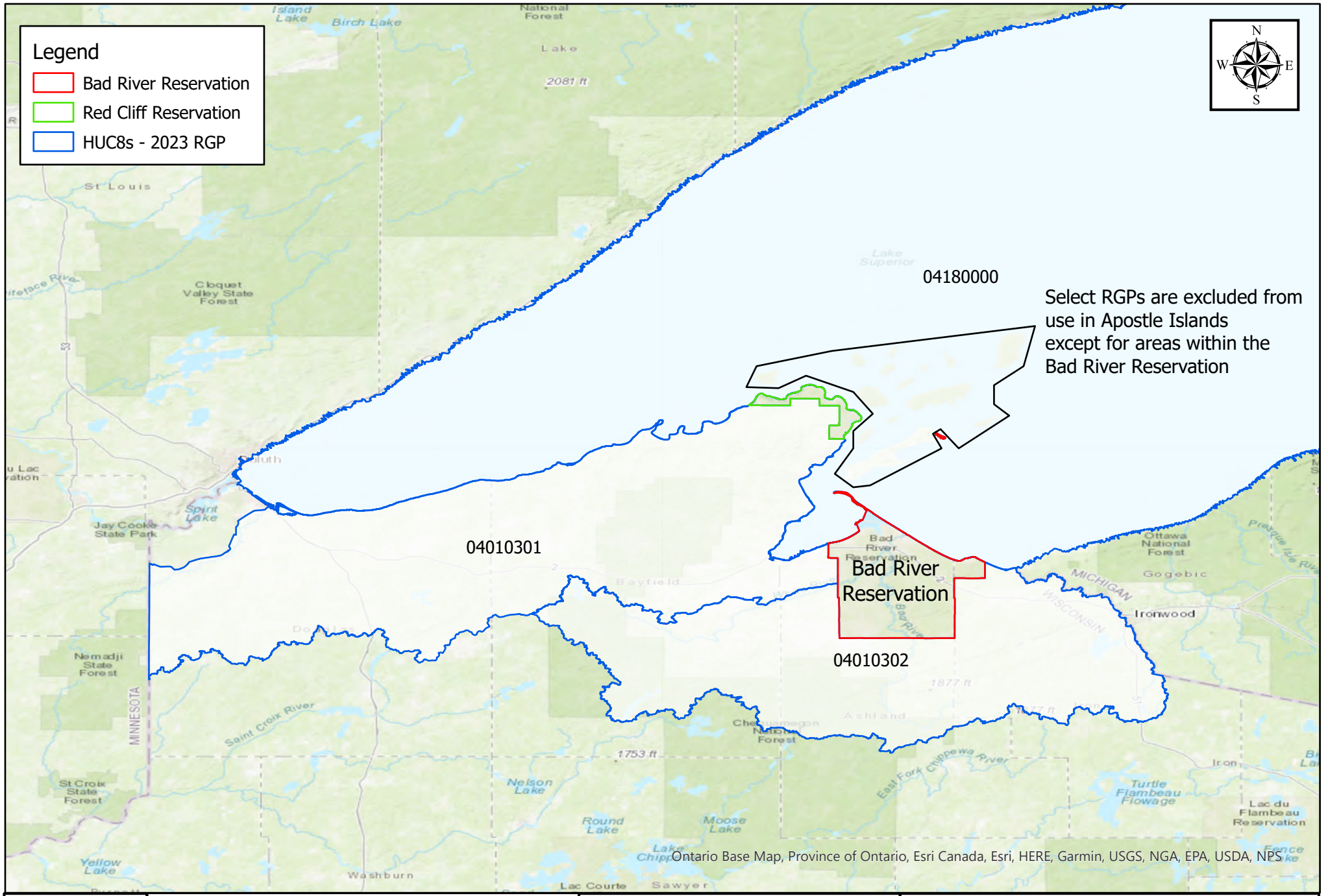
I. CORPS DECISION

In reviewing the PCN for the proposed activity, the Corps will determine whether the activity authorized by the RGP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific RGP, the Corps should issue the RGP verification for that activity if it meets the terms and conditions of that RGP, unless the Corps determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the individual crossings of waters of the US to determine whether they individually satisfy the terms and conditions of the RGPs, as well as the cumulative effects caused by all of the crossings authorized by RGP. If an applicant requests a waiver for any limit where waivers are indicated as available, the Corps will only grant the waiverupon a written determination that the RGP activity will result in only minimal individual and cumulative adverse environmental effects.

When making minimal adverse environmental effects determinations the Corps will consider the direct and indirect effects caused by the RGP activity. The Corps will also consider the cumulative adverse environmental effects caused by activities authorized by the RGP and whether those cumulative adverse environmental effects are no more than minimal. The Corps will consider site specific factors, such as the environmental setting in the vicinity of the RGP activity, the type of resource that will be affected by the RGP activity, the functions provided by the aquatic resources that will be affected by the RGP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the RGP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the Corps. The Corps may add case-specific special conditions to the RGP authorization to address site-specific environmental concerns.

The Corps will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal to inform decisions regarding whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the Corps determines that the activity complies with the terms and conditions of the RGP and that the adverse environmental effects are no more than minimal, after considering mitigation, the Corps will notify the permittee and include any activity specific conditions in the RGP verification the Corps deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). When compensatory mitigation is required, the Corps must approve the final mitigation plan before the permittee commences work in waters of the US, unless the Corps determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the

required compensatory mitigation. If the Corps determines that the adverse environmental effects of the proposed activity are more than minimal, then the Corps will notify the applicant of next steps as described in 33 CFR 325.2.



HUC8s excluded in 2023 RGPs

0 9.5 19 38

Miles

Map Center: 80.148784°W 35.690807°N

MVP Regulatory

Date: 2/16/2023

Coordinate System: GCS WGS 1984
Datum: WGS 1984

MINNESOTA POLLUTION CONTROL AGENCY

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

800-657-3864 | Use your preferred relay service | info.pca@state.mn.us | Equal Opportunity Employer

January 13, 2023

Chad Konickson
U.S. Army Corps of Engineers
Regulatory Branch Chief, St. Paul District
180 5th St E, Suite 700
St. Paul, MN 55101-1678

RE: Regional General Permits Minnesota Pollution Control Agency 401 Certification
Clean Water Act Section 401 Water Quality Certification

Dear Chad Konickson:

This letter is submitted by the Minnesota Pollution Control Agency (MPCA) under the authority of Section 401 of the Clean Water Act (CWA) (33 U.S.C § 1251 et seq.), Minn. Stat. chs. 115 and Minn. R. 7001.1400 – 7001.1470, chs. 7050, 7052, and 7053. The MPCA has examined the draft Regional General Permits (RGPs) and request for 401 Certification by the U.S. Army Corps of Engineers (USACE) for the following RGPs: Bank Stabilization Habitat Improvement, Beach Creation and Nourishment, Beach Raking, Minor Discharges, Piers and Docks, Transportation, Utility, and Wildlife Ponds, and is requiring conditions through the 401 Water Quality Certification.

RGPs authorize work in Waters of the United States, and USACE can directly enforce water quality certification conditions within the scope of its permitting authority. Minnesota's water quality standards apply to all "waters of the state" which includes all waters of the United States as well as other waters. "Waters of the state" includes all lakes, streams, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems, and all other bodies or accumulations of water in or bordering Minnesota (Minn. Stat. § 115.01, subd. 22).

Activities that impact waters of the state that are not waters of the United States must comply with state law and state water quality standards. The MPCA has jurisdiction over waters of the state and can enforce the conditions below in waters of the state. The term "waters" as used in the conditions of this Certification, apply to the respective jurisdiction of each agency.

Certain conditions, as identified below, may require case-by-case review and interpretation by the MPCA. After such interpretation, the conditions are enforceable by the MPCA and USACE.

Waters Excluded from 401 Certification of the RGPs

Physical Alterations of 300 or More Linear Feet of a Stream
The MPCA's antidegradation standard (Minn. R. 7050.0270) requires that the MPCA issue control documents that protect and maintain existing and beneficial uses. For this reason, the MPCA denies

Certification without prejudice for projects resulting in permanent degradation (impacts longer than 12 months) for projects that will cause a cumulative physical alteration of 300 or more linear feet of a stream defined as a water of the state Natural streams or wetlands that have been channelized or converted to drainage structures are included in this definition of surface waters; however, man-made channels and drainage ditches that have been constructed as part of a treatment system are excluded. Proposers of these projects must instead request an individual 401 water quality certification from the MPCA. Minn. R. ch. 7050.0255 subp. 30, defines "physical alteration" as "a physical change that degrades surface waters such as the dredging, filling, draining, or permanent inundation of a surface water." The MPCA Authority: Minn. R. ch. 7050.0255. Physical alterations to smaller streams can potentially have significant impacts on overall water quality. The MPCA must individually review these projects for compliance with Water Quality Standards (WQS).

Physical Alteration of any Linear Amount of a Class 2A water

The MPCA's antidegradation standard (Minn. R. 7050.0270) requires that the MPCA issue control documents that protect and maintain existing and beneficial uses. For this reason, the MPCA denies certification without prejudice for projects resulting in permanent degradation (impacts longer than 12 months) for projects that will cause a physical alteration to a Class 2A water (Minn. R. ch. 7050.0140 subp. 2). Proposers of these projects must instead obtain an individual 401 certification from the MPCA. Minn. R. ch. 7050.0255 subp. 30, defines "physical alteration" as "a physical change that degrades surface waters such as the dredging, filling, draining, or permanent inundation of a surface water." The MPCA Authority: Minn. R. ch. 7050.0255. Physical alterations to any Class 2A potentially have significant impacts on overall water quality. The MPCA must individually review these projects for compliance with Water Quality Standards (WQS).

Exceptional Aquatic Life Use Waters

The MPCA's antidegradation standard (Minn. R. 7050.0270) requires that the MPCA issue control documents that protect and maintain existing and beneficial uses. For this reason, the MPCA denies certification without prejudice for projects resulting in permanent degradation (impacts longer than 12 months) for projects that will cause a physical alteration of Exceptional Aquatic Life Use Waters. Exceptional Aquatic Life Use Waters are very susceptible to disturbance. An increase in water temperature or sedimentation can effectively destroy this unique water habitat. Proposers of projects that will potentially impact Exceptional Aquatic Life Use Waters directly or indirectly by impacting stream hydrology, connectivity, chemistry and habitat are required to obtain an individual Certification. The MPCA Authority: Minn. R. ch. 7050.0222 subps. 2c, 3c and 4c. Because Exceptional Aquatic Life Use Waters are very susceptible to disturbance, the MPCA must individually review projects for compliance with WQS for the following water bodies: More information on the water bodies is located at the 401 webpage: https://www.pca.state.mn.us/water/clean-water-act-section-401-water-quality-certifications.

	Water Body Name	Miles	Reach
1	Cross River	14.84	Fourmile Cr. To Lk Superior
2	Greenwood River	7.29	Greenwood Lk to Brule R
3	Irish Creek	7.07	Headwaters to Swamp River Reservoir
4	Kimball Creek	8.98	Headwaters to Lk Superior
5	Manitou River	11.07	S Br Manitou R to Lk Superior
6	Mistletoe Creek	4.56	Halls Pond to Poplar R
7	Two Island River	11.44	Unnamed cr to Lk Superior
8	Little Devil Track River	2.71	Unnamed cr to Devil Track R

9	Heartbreak Creek	3.79	Unnamed cr to Temperance R
10	Houghtaling Creek	1.7	Unnamed cr to Unnamed cr
11	Caribou River	5.51	Amenda cr to Unnamed cr
12	Caribou River	1.18	Unnamed cr to Unnamed cr
13	Crown Creek	1.68	Fry Cr to Unnamed cr
14	Cascade River	14.46	N Br Cascade R to Lk Superior
15	Spruce Creek (Deer Yard Creek)	3.21	Unnamed cr (Ward Lk outlet) to Lk Superior
16	Bluff Creek	2.68	East Twin Lk (16-0145-00) to South Brule R
17	Elbow Creek	0.81	Unnamed cr to Devil Track R
18	Wanless Creek	2.73	Headwaters (Dam Five Lk 38-0053-00) to Houghtaling Cr
19	Lullaby Creek	1.82	Headwaters (Lullaby Lk 16-0100-00) to Brule R
20	Manitou River, South Branch	5.42	Junction Cr to Mantiou R
21	Sixmile Creek	3.32	Unnamed cr to Temperance R
22	Swamp River	1.91	Stevens Lk to T63 R4E S20, east line
23	Brule River	12.58	BWCA boundary to South Brule R
24	Baptism River, West Branch	2.68	-91.3381 47.4702 to Crown Cr
25	Kadunce River (Kadunce Creek)	2.69	-90.1484 47.8261 to Lk Superior
26	Portage Brook	5.85	CSAH 16 to Pigeon R
27	Temperance River	15.05	T61 R4W S4, north line to Sixmile Cr
28	Baptism River, East Branch	3.28	Lk Twenty-three to Blesner Cr
29	Woods Creek	1.84	-90.2650 47.7964 to Devil Track R
30	Devil Track River	6.66	Devil Track Lk to Unnamed cr
31	Humphrey Creek	3.67	Headwaters to Boulder Cr
32	Coyote Creek	1	Unnamed cr to Pequaywan Lk
33	Cloquet River	13.95	Headwaters (Katherine Lk 38-0538-00) to T57 R10 S32, south line
34	Cloquet River	26.44	T56 R10 S5, north line to W Br Cloquet River
35	Cloquet River	28.82	W Br Cloquet R to Island Lake Reservoir
36	Schoolcraft River	7.78	Frontenac Cr to Plantagenet Lk
37	Prairie River, West Fork	2.31	Hartley Lk to Prairie R
38	Willow River Ditch	3.3	Willow River Flowage to Moose R
39	Tamarack River	7.52	Little Tamarack R to Prairie R
40	Prairie River	11.31	Day Bk to Balsam Cr
41	Bee Creek (Waterloo Creek)	3.45	T101 R6W S29, north line to MN/IA border
42	Tulaby Creek	5.08	Tulaby Lk to McCraney Lk
43	Little Isabella River	11.02	Headwaters to Flat Horn Lk
44	Snake River	1.71	T61 R9W S7, south line to T61 R10W S12, north line

45	Jack Pine Creek	7.24	Headwaters to Mitawan Cr
46	Mitawan Creek	8.18	Kitigan Lk to T61 R9W S13, north line
47	Denley Creek	3.13	Nira Cr to Stony R
48	Cross River	3.79	Ham Lake Outlet to Gunflint Lk
49	Bezhik Creek	0.9	BWCA boundary to Moose R

Prohibited Outstanding Resource Value Waters
The MPCA's antidegradation standard (Minn. R. 7050.0270) requires that the MPCA issue control documents that "prohibit a net increase in loading or other causes of degradation to prohibited outstanding resource values waters." For this reason, the MPCA denies certification without prejudice for projects resulting in permanent (impacts longer than 12 months) to prohibited outstanding resource value waters (ORVWs). The MPCA does not find that RGP authorizations for broad categories of activities, where specific impacts may vary, is appropriate for activities in these waters. Therefore, the MPCA excludes from this general 401 Certification of the RGPs any project taking place in whole or in part in a listed prohibited ORVW in Minnesota, as identified in Minn. R. 7050.0335, subp. 3, and listed below. Such projects, though authorized by the RGPs, require individual 401 Certification from the MPCA (Minn. R. Chs. 7050, 7001).

Minn. R. 7050.0335 DESIGNATED OUTSTANDING RESOURCE VALUE WATERS.
Subp.3. Prohibited outstanding resource value waters. For the purposes of parts 7050.0250 to 7050.0335, the following surface waters are prohibited outstanding resource value waters:

A. Waters within the Boundary Waters Canoe Area Wilderness (BWCAW);
B. Those portions of Lake Superior north of latitude 47 degrees, 57 minutes, 13 seconds, east of Hat Point, south of the Minnesota-Ontario boundary, and west of the Minnesota-Michigan boundary;
C. Waters within Voyageurs National Park;
D. The following scientific and natural areas:
    1. Boot Lake, Anoka County
    2. Kettle River in Sections 15, 22, 23, T.41, R.20, Pine County;
    3. Pennington Bog, Beltrami County;
    4. Purvis Lake-Ober Foundation, St. Louis County;
    5. Waters within the borders of Itasca Wilderness Sanctuary, Clearwater County;
    6. Iron Springs Bog, Clearwater County;
    7. Wolsfeld Woods, Hennepin County;
    8. Green Water Lake, Becker County;
    9. Black Dog Preserve, Dakota County;
    10. Prairie Bush Clover, Jackson County;
    11. Black Lake Bog, Pine County;
    12. Pembina Trail Preserve, Polk County; and
    13. Falls Creek Washington County.

E. The following state and federal designated wild river segments:
    1. Kettle River from the site of the former dam at Sandstone to its confluence with the St. Croix River; and
    2. Rum River from Ogechie Lake spillway to the northernmost confluence with Lake Onamia.

Restricted Outstanding Resource Value Waters
The MPCA's antidegradation standard (Minn. R. 7050.0270) requires that the MPCA issue control documents that "restrict net increases in loading or other causes of degradation as necessary to maintain the exceptional characteristics for which the restricted outstanding resource value waters were designated." Projects authorized by the RGPs in the following Restricted Outstanding Resource Value Waters (ORVWs) must meet the additional BMPs listed under "Additional BMPs for Restricted Outstanding Resource Value Waters" below, in order to ensure protection of the exceptional characteristics of these waters. Projects that will potentially impact calcareous fens identified as restricted ORVWs in Minn. R. 7050.0335, subp. 1 are not required to meet the additional BMPs below as they are either excluded from RGP coverage altogether (Minor Discharges and Beach Creation and Nourishment) or are required to have an approved Fen Management Plan from the Minnesota DNR (Transportation, Utility, Beach Raking, Piers and Docks, and Wildlife Ponds) which is sufficient to ensure maintenance of the exceptional characteristics for which the fens were designated as restricted ORVWs.

Minn. R. 7050.0335 DESIGNATED OUTSTANDING RESOURCE VALUE WATERS.
Subpart 1. Restricted outstanding resource value waters. For the purposes of parts 7050.0250 to 7050.0335, the following waters are restricted outstanding resource value waters:

A. Lake Superior, except those portions identified in subpart 3, item B as a prohibited outstanding resource value water;
B. Those portions of the Mississippi River from Lake Itasca to the southerly border of Morrison County that are included in the Mississippi Headwaters Board comprehensive plan dated February 12, 1981;
C. Lake trout lakes, both existing and potential, as determined by the commissioner in conjunction with DNR, outside the boundaries of the BWCAW and Voyageurs National Park and identified in parts 7050.0460 to 7050.0470;
D. The following state and federal designated scenic or recreational river segments:
    1) St. Croix River, entire length;
    2) Cannon River from northern city limits of Faribault to its confluence with the Mississippi River;
    3) North Fork of the Crow River from Lake Koronis outlet to the Meeker-Wright County line;
    4) Kettle River from north Pine County line to the site of the former dam at Sandstone;
    5) Minnesota River from Lac qui Parle dam to Redwood County State-Aid Highway 11;
    6) Mississippi River from County State-Aid Highway 7 bridge in St. Cloud to northwestern city limits of Anoka;
    7) Rum River from State Highway 27 bridge in Onamia to Madison and Rice Streets in Anoka.

Additional BMPs for Restricted Outstanding Resource Value Waters:

1. The permittee must have a written plan, kept on site, that shows a practicable means of control to prevent an increase in TSS in the water. It must include methods to minimize degradation of water, including avoidance of impacts, construction phasing, seasonal construction where practicable, minimizing the length of time soil areas are exposed, prohibitions, pollution prevention through adequate BMPs, and other management practices published by state agencies (Minn. R. Chs 7050, 7001).

   The MPCA is responsible for interpretation of the requirements of this condition, determining compliance with the requirements of this condition, and may enforce this condition

independent of the RGPs. If there are questions regarding proper implementation of this condition, the MPCA will determine compliance, as needed, on a case-by-case basis. The point of contact at the MPCA for questions regarding this condition is 401Certification.pca@state.mn.us.

2. The permittee must inspect the site daily to ensure that BMPs are functioning properly and to determine if additional BMPs are required. Additionally, permittee must allow representatives from the MPCA to inspect the project site and the authorized activity to ensure that the project is constructed, and BMPs maintained, in accordance with this Certification (Minn. R. Chs. 7050, 7001).

3. Where practicable, the permittee must establish and maintain an undisturbed buffer zone of at least 100 linear feet from the restricted ORVWs, except in the immediate area of the in-water work (Minn. R. Chs 7050, 7001).

4. Whenever any construction activity is within 200 feet of a restricted ORVW, the permittee must stabilize all exposed soils within 24 hours after completing the construction activity (Minn. R. Chs 7050, 7001).

401 Certification of the RGPs

Based on a review of the RGPs and evaluation of information that is relevant to water quality considerations, the MPCA certifies the general permits for projects that do not fall under an exclusion as stated above. This certification is issued on the basis there is reasonable assurance that the activities authorized by the RGPs will be conducted in a manner that will not violate applicable water quality standards so long as the work is completed in accordance with the below-specified conditions, which shall become conditions of the RGPs. Additionally, based on a review of the determinations specified in the Code of Federal Regulations (CFR), title 33, part 320, subpart 4, and CFR title 40, part 230, subpart 7, the MPCA has determined that the antidegradation standards described in Minn. R. 7050.0270 are satisfied by issuing a 401 Certification with the below conditions:

General conditions

All activities authorized by the above-listed RGPs must comply with the conditions below:

1. Permittees must ensure that surface waters in or bordering the project area that are not proposed to be impacted by the project are clearly identified prior to construction. This may be accomplished through demarcation of the construction area on plan sheets and/or through marking boundaries in the field, for example construction staking, flagging, or the use of silt fences along boundaries. The permittee must not impact these areas while conducting activities authorized by the RGPs (Minn. R. Chs. 7050, 7001).

2. The permittee must install in-water Best Management Practices (BMPs) to the extent practical and feasible, to minimize total suspended solids (TSS) and sedimentation for any work conducted below the ordinary high water level (OHWL) as defined in Minn. Stat. § 103G.005, subp. 14, of any water or within the delineated boundaries of wetlands.

   The permittee must document the in-water BMPs to be used during the authorized work prior to disturbing any land at the site; this documentation may be stand-alone or part of an Erosion

Control Plan, Construction Plan, or other relevant construction document. This documentation is not required to be submitted to the MPCA, but must be kept on-site during active construction by the contractor until the project is complete. Proper installation of BMPs is required before conducting the authorized in-water activities and must be properly maintained until the project is complete. This includes maintenance of in-water BMPs along with the establishment and maintenance of any erosion prevention, sediment control or site stabilization features included in the project plan or required by the RGP or this certification. While conducting the authorized work, the permittee must visually monitor the BMPs to ensure that the BMPs are working as intended to reduce TSS or sedimentation. If the project activities cause an observable increase in TSS or sedimentation as described in Minn. R. 7050.0210, subp. 2, outside or downstream of the authorized defined working area, then the project activities must immediately cease and any malfunctioning BMPs must be repaired, or alternative BMPs must be implemented. This Certification does not authorize the violation of applicable water quality standards outside or downstream of the defined work area. Minnesota water quality standards are defined in Minn. R. Chs. 7050, 7001.

Information on types of BMPs that may be suitable for in-water work is located in the Minnesota Department of Natural Resources (DNR) Manual titled *Best Practices for Meeting DNR General Public Waters Work Permit GP 2004-0001,* located at: https://www.dnr.state.mn.us/waters/watermgmt_section/pwpermits/gp_2004_0001_manual.html

The MPCA is responsible for interpretation of the requirements of this condition, determining compliance with the requirements of this condition, and may enforce this condition independent of the RGPs. If there are questions regarding proper implementation of this condition, the MPCA will determine compliance, as needed, on a case-by-case basis. The point of contact at the MPCA for questions regarding this condition is 401Certification.pca@state.mn.us.

3. The permittee must ensure that any dewatering activities do not create nuisance conditions as defined in Minn. R. 7050.0210, subp. 2. The permittee must use BMPs that minimize TSS and sedimentation by removing solids in the water before discharging the water. The permittee must document BMPs prior to beginning any dewatering; this documentation may be stand-alone or part of an Erosion Control Plan, Construction Plan, or other relevant construction document. The permittee must ensure that properly installed BMPs are in place before conducting the authorized activities and are maintained throughout the duration of the dewatering work. Any unplanned dewatering that must occur due to site conditions at the time of construction should be noted on the SWPPP or other relevant construction documents (Minn. R. Chs. 7050, 7001).

   The MPCA is responsible for interpretation of the requirements of this condition, determining compliance with the requirements of this condition, and may enforce this condition independent of the RGPs. If there are questions regarding proper implementation of this condition, the MPCA will determine compliance, as needed, on a case-by-case basis. The point of contact at the MPCA for questions regarding this condition is 401Certification.pca@state.mn.us.

4. The permittee must ensure earthen material used to construct or improve temporary or permanent dikes or dams, including cofferdams, or any roads, is contained in a manner that will prevent earthen material from eroding into the water. All BMPs must be properly installed to ensure compliance with state water quality standards. The permittee must completely remove temporary structures and restore original bathymetry or contours at project completion or within 12 months, whichever is sooner (Minn. R. Chs 7050, 7001).

5. The permittee must ensure that the authorized activities do not exacerbate any existing impairments of a CWA 303(d) listed impaired water. Prior to beginning any authorized activities, the Permittee must first identify whether their project area is in, or near, any impaired waters and waters with the USEPA- approved TMDLs. When working in, or near, impaired waters, the Permittee must deploy redundant BMPs as necessary to ensure the authorized construction activities will not exacerbate existing impairments. The following MPCA webpage contains more information and search tools available to determine which waters in Minnesota are impaired: https://www.pca.state.mn.us/air-water-land-climate/minnesotas-impaired-waters-list. The applicable water quality standards are located in Minn. R. Chs. 7050, 7001.

   The MPCA is responsible for interpretation of the requirements of this condition, determining compliance with the requirements of this condition, and may enforce this condition independent of the RGPs. If there are questions regarding proper implementation of this condition, the MPCA will determine compliance, as needed, on a case-by-case basis. The point of contact at the MPCA for questions regarding this condition is 401Certification.pca@state.mn.us.

6. The permittee must ensure that any fill placed in water must be clean fill that is free of solid waste, toxic or hazardous contaminants. Any deviation from this requirement such as seeking beneficial reuse of materials, requires case-specific beneficial use determinations by MPCA for debris and soil with contaminant levels appropriate for the placement setting. The permittee must also ensure that any fill will not promote the spread of invasive species as defined in Minn. State. Ch. 84D and Minn. R. 6216, and is free of those species identified as “prohibited species” in the *Minnesota Noxious Weeds* publication https://www.mda.state.mn.us/plants-insects/minnesota-noxious-weed-list. The Permittee must ensure all construction equipment, construction matting, erosion control devices and BMPs brought to the site are free of the same prohibited species.

7. The permittee must provide: a) a copy of this certification; b) documentation of any required BMPs under the above conditions; and c) any written demarcation of waters to any prime contractor responsible for completing the projects authorized activities. The permittee must also ensure that there is a mechanism in place requiring each prime contractor to provide the same information to all subcontractors, at any level, responsible for fabricating or providing any material for the project or performing work at the project site. In addition, copies of these documents and any other relevant regulatory authorizations related to impacts to waters must be available at or near the project site for use by contractors and staff responsible for completing the project work and must be available within 72 hours when requested by MPCA staff (Minn. R. Chs. 7050, 7001).

8. The permittee must allow representatives from the MPCA to inspect the project site and the authorized activity to ensure that the project is constructed, and BMPs maintained, in accordance with this Certification (Minn. R. Chs 7050, 7001).

9. The permittee is responsible for ensuring that all requirements of this Certification are met (Minn. R. Chs 7050, 7001).

10. This Certification includes and incorporates by reference the general conditions of Minn. R. Chs. 7050, 7001.

11. Minn. R. Chs. 7001 and 7090 require any activity that will disturb one acre or more of land to first acquire a National Pollutant Discharge Elimination System Permit (NPDES)/State Disposal System (SDS) General Stormwater Permit from the MPCA for discharging stormwater during construction activity. Both the owners and operators of construction activity disturbing one acre or more of land are responsible for obtaining and complying with the conditions of the NPDES/SDS General Stormwater Permit prior to commencing construction activities. Sites disturbing less than one acre within a larger common plan of development or sale that is more than one acre also need permit coverage. A detailed Stormwater Pollution Prevention Plan (SWPPP), containing both temporary and permanent erosion and sediment control plans, must be prepared prior to submitting an application for the NPDES/SDS General Stormwater Permit. In addition, any project that will result in over 50 acres of disturbed area and has a discharge point within one mile of a special or impaired water is required to submit its SWPPP to the MPCA for a review at least 30 days prior to the commencement of land disturbing activities. If the SWPPP is out of compliance with the terms and conditions of the NPDES/SDS General Stormwater Permit, further delay may occur. For more information, please visit: https://www.pca.state.mn.us/business-with-us/construction-stormwater.

12. Minn. R. 7001.0030 requires that, prior to testing the structural integrity of any newly installed pipeline or any existing pipeline maintained or repaired that is authorized by the RGP, the permittee must obtain NPDES/SDS Permit coverage from the MPCA. The NPDES/SDS permit regulates the discharge of water and trench waters associated with this activity.

13. It is the permittee's responsibility to fully comply with all MPCA rules governing waters of the state, including MPCA rules governing wetlands (Minn. R. 7050.0186), which require a permittee to provide compensatory mitigation for a project's unavoidable permanent impacts to wetlands and streams, including those that are not subject to federal jurisdiction under section 404 of the CWA.

Additional conditions for Transportation RGP projects:
The MPCA requires the following conditions for any project that is authorized under the Transportation RGP:

1. During bridge painting, cleaning, or restoration activities, the permittee must use BMPs such as curtains or other reliable methods designed to prevent the discharge of paint, chemicals, grouting, or other contaminants to waters. These BMPs must remain in place for the duration of the project's painting, cleaning, or restoration activities (Minn. R. Chs 7050, 7001).

The MPCA is responsible for interpretation of the requirements of this condition, determining compliance with the requirements of this condition, and may enforce this condition independent of the RGPs. If there are questions regarding proper implementation of this condition, the MPCA will determine compliance, as needed, on a case-by-case basis. The point of contact at the MPCA for questions regarding this condition is 401Certification.pca@state.mn.us.

2. The permittee must not conduct bridge demolition activities that use explosive devices to implode or collapse a bridge or any portion of a bridge into any water (Minn. R. Chs 7050, 7001).

3. The permittee must not use broken concrete from any existing bridge as riprap bank protection unless, 1) it is crushed to the diameter which is greater than 6 inches and no larger than 30 inches, 2) all steel reinforcement bars and asphalt have been removed, and 3) it does not contain any contaminants of concern listed in Minn. R. 7035.2860, subp. 4.

4. If the permittee plans to place riprap grouted with concrete under a bridge, then plywood sheeting, sheet piling, sandbags, or other suitable material must be placed at the base of the riprap prior to conducting the grouting activity to ensure no grout reaches the waterbody. The material must remain in place until all concrete grouting has cured (Minn. R. Chs 7050, 7001).

5. A Stream Diversion Plan (SDP) will be required for removal and replacement of culverts or bridges. Prior to construction, stream diversion water procedures must be in place to ensure that discharge points are adequately protected from erosion and scour. In addition, the SDP must address erosion prevention and sediment control, comply with water quality requirements, and meet in-water best construction practices. The MPCA reserves the right to add additional conditions if necessary to accommodate and address specific design requirements and to maintain water quality standards (Minn. R. Chs 7050, 7001).

Additional conditions for Utility RGP projects:
The Permittee must comply with the following MPCA conditions for activities authorized under the Utility RGP:

1. **Spill Prevention Plan.** Prior to the start of each segment of construction, for any trenching that will pass over, under, or around any water or any perceptible flow of water, the permittee or contractor acting on permittee's behalf must prepare a spill prevention plan, to be kept on-site, that describes steps that must be taken to prevent, mitigate, and immediately clean up any spill from any product, including drilling mud, from entering any waters. The plan must include a directive to immediately contact the Minnesota State Duty Officer at 651-649-5451 for any spill substance or material of any quantity, other than a spill of five gallons or less of petroleum, that may cause pollution to waters of the state, and it must describe disposal methods for the spill material (Minn. R. Chs. 7050, 7001; Minn. Stat.115.061).

2. **Horizontal Directional Drilling (HDD) Requirements.**

    a. **Geotechnical Investigation and Cleanup Response.** Prior to conducting any authorized HDD construction activities beneath or near any wetlands, tributaries, and rivers and streams, the Permittee, or contractor acting on Permittee's behalf, must first:

i. Ensure there is a geotechnical investigation of the area to determine whether the soils and geology will support successful HDD installation without a moderate to high risk of a drilling mud release during the installation process. The Permittee must retain a copy of the associated report and provide to state resource agencies, including the MPCA, upon request.
ii. Prepare a plan to be kept on site that describes cleanup procedures and the response plan in the case of spills or releases of material.
iii. In the event of a drilling mud release during the HDD activities, the Permittee or contractor acting on Permittee's behalf must immediately contain and clean up any such drilling mud that discharged into waters of the state, and immediately report the incident to the State Duty Officer at 651-649-5451. Drilling mud discharges to upland area must also be immediately contained and cleaned up accordingly (Minn. R. Chs. 7050, 7001).

b. **Prohibition.** The Permittee, or contractor acting on Permittee's behalf, is prohibited from using any drilling muds or drilling mud additives that contain phosphorus or sulfate, or any hazardous materials. The Permittee must keep a Safety Data Sheet on-site for each of the drilling muds or drilling mud additives used during the HDD installation process (Minn. R. Chs. 7050, 7001).

c. **HDD drilling mud discharges to waterbodies and wetlands prohibited (MPCA authority: Minn. Stat. ch. 115; Minn. R. chs. 7001, 7050, and 7052)**. This 401 Certification does not authorize the Permittee to discharge drilling mud into waters of the state. Such discharges are considered a violation of applicable statutes (Minn. Stat. ch. 115) and applicable water quality standards (Minn. R. 7050).

3. The permittee must utilize low flow and winter construction methods whenever possible (Minn. R. Chs 7050, 7001).

4. The permittee must restore trenches approaching and leading away from any water to preconstruction contours prior to beginning work on the next segment of trench. The permittee must limit any open trench, for all related projects authorized by the Utility RGP, to 5280 linear feet at any given time (Minn. R. Chs. 7050, 7001).

5. The permittee must stabilize all exposed soil areas whenever any construction activity has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days (Minn. R. Chs. 7050, 7001).

6. The permittee must use dry construction methods (e.g. coffer dams, HDD, dam and pump, flume, stream diversion, etc.) for any maintenance or repair of any utility that will occur within flowing water (Minn. R. Chs. 7050, 7001).

Notifications:
The following notifications are not conditions of the MPCA CWA 401 Certification of the RGPs. They provide information that can help reduce the potential environmental impacts, or they provide notification to the public in Minnesota that certain discharges in waters are also regulated under other rules administered by the MPCA:

1. Chloride from winter road salt affects water quality. The MPCA encourages public road authorities pursuing projects under the general permit to consider the use of BMPs to reduce the use of chloride. General information about chloride and water quality, including the *Twin Cities Metropolitan Area Chloride Management Plan*, is located at: https://stormwater.pca.state.mn.us/index.php/Chloride_Management_Plan

2. When riprap is used, the permittee should consider placing riprap in the following manner:

    a. Use natural rock (cannot average less than 6 inches or more than 30 inches in diameter) that is free of debris that may cause pollution or siltation.
    b. A filter of crushed rock, gravel, or filter fabric material can be placed underneath the rock.
    c. The riprap should be no more than 6 feet waterward of the OHWL as defined in Minn. Stat. §103G. 005, subp. 14.
    d. The riprap should conform to the natural alignment of shore and should not obstruct navigation or the flow of water.
    e. The minimum finished slope waterward of the OHWL should be no steeper than 3 to 1 (horizontal to vertical).

Disclaimer:
Section 401 Certification does not release the permittee from obtaining all necessary federal, state, and local permits. It does not limit any other permit where requirements may be more restrictive. It does not eliminate, waive, or vary the permittee's obligation to comply with all other laws and state water statues and rules through the construction, installation, and operation of the project. This Certification does not release the permittee from any liability, penalty, or duty imposed by the Minnesota or federal statues, regulations, rules, or local ordinances, and it does not convey a property right or an exclusive privilege. This Certification does not authorize impacts to any waters beyond the project area.

This Certification does not replace or satisfy any environmental review requirements, including those under the Minnesota Environmental Policy Act (MEPA) or the National Environmental Policy Act (NEPA). In accordance with MEPA, Minn. Stat. §116D.04, subd. 2b and related rules, projects that are required to complete an Environmental Assessment Worksheet (EAW) or an Environmental Impact Statement (EIS) may not be started until:

- A petition for an EAW is dismissed,
- A negative declaration on the need for an EIS has been made,
- An EIS has been determined to be adequate, or
- A variance has been granted by the state Environmental Quality Board.

An Environmental Review, required by law, for any project, must be complete in order for any state permit or Certification to be valid.

The MPCA reserves the right to modify this Certification or revoke this Certification as provided in Minn. R. 7001.0270 and 33 U.S.C. §1341.

Pursuant to Minn. R. 7001.1450 and 33 U.S.C. §1341(a)(3), failure to comply with any of the conditions in this Certification may result in the MPCA invalidating or revoking this 401 Water Quality Certification on a project-by-project basis.

If you have questions on this Certification, please contact Kirsten Barta at 651-757-2827 or Kirsten.barta@state.mn.us.

Sincerely,

Anna Hotz

This document has been electronically signed.

Anna Hotz
Manager
Environmental and Business Assistance Section
Resource Management and Assistance Division

AH/KB:je

Appendix C

Off-Site Wetland Determination

Appendix C Off-Site Wetland Determination

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BARR

Technical Memorandum

To: Samantha Roberts; Minnkota Power Cooperative
From: Barr Engineering Co.
Subject: Level I Desktop Wetland Determination Review
Date: April 25, 2023
Project: Maple River to Buffalo River Switch 69kV Line Rebuild Project

Barr Engineering Co. (Barr) completed a Level I Desktop Wetland Determination on behalf of Minnkota Power Cooperative, Inc. (Minnkota) in support of their Maple River to Buffalo River 69 kilovolt (kV) Line Rebuild Project (Project). Minnkota is proposing to replace aging, 1940s era wood transmission line structures along approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The Project runs from east of Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (**Figure 1**). In addition, Minnkota plans to provide partial funding support to Red River Valley Electric Cooperative to bury an existing distribution line that is currently strung below the existing Minnkota 69 kV line (referred to as an underbuild).

This technical memorandum summarizes the presence of wetlands within the 80-foot right-of-way (Project area) based on the U.S. Army Corps of Engineers (USACE) and Minnesota Board of Water and Soil Resources (BWSR) Guidance for Offsite Hydrology/Wetland Determinations (USACE and BWSR 2016).

1.0 General Environmental Information

1.1 Site Description

The Project is centered on the existing 80-foot HVTL right-of-way (Project area), adjacent to Highway 22 North in North Dakota and State Aid Highway 26 in Minnesota. The land within the Project area is disturbed and is used as a transportation corridor, utility corridor, and agricultural land.

1.2 Topography

The topography in the Project area ranges between 855 feet above mean sea level (AMSL) and 1,264 feet AMSL (**Figures 2a and 2b**). The higher elevations occur in the eastern part of the Project and the lower elevations occur in the western part of the Project near the Minnesota and North Dakota border.

1.3 Precipitation

Precipitation data were analyzed in comparison to the statistical climatic WETS table data developed by the Natural Resources Conservation Service (NRCS) specifically for evaluating climatic normalcy in conducting wetland delineations. The WETS method establishes a normal range of monthly and annual precipitation based on the long-term precipitation record.

Precipitation data were obtained from the Minnesota Climatology Working Group, Wetland Delineation Precipitation Data Retrieval from a Gridded Database (http://climate.umn.edu/gridded_data/precip/wetland/wetland.asp) for wetlands in Clay County, Section 36, Township 141N, Range 47W. This location was used for precipitation data because it represents the half-way point along the 25.5-mile HVTL alignment.

Historic aerial imagery, which was used in the wetland determination, was evaluated in the context of precipitation conditions to identify normal, wet, and dry years. For each aerial image, antecedent moisture conditions were determined based on the 3 months prior to the date in which each aerial image was captured. In cases where the entire Project was not captured on the same day, an average date was used.

Out of the 9 years where aerial imagery was available across the Project area, 6 years had antecedent precipitation levels within the normal range, 1 year had antecedent precipitation levels below the normal range (dry), and 2 years had antecedent precipitation levels above the normal range (wet). Precipitation data is provided in **Appendix A**.

1.4 Water Resources

The Project area lies within two major watersheds, the Upper Red River of the North watershed near the North Dakota and Minnesota border and the Buffalo River watershed in Minnesota. The major streams in the Project area include the Red River of the North, on the border of North Dakota and Minnesota, and the Buffalo River in Minnesota (**Figures 3a and 3b**). Several intermittent streams and ditches are also located in the Project area. The Red River, Buffalo River, and three unnamed streams are mapped in the Minnesota Public Waters Inventory (PWI); the existing transmission line crosses all of these PWI watercourses. There are three lakes in the eastern part of Project area, all of which are listed in the PWI; these include Hatchet Lake, an unnamed lake associated with the Tatlie Lake Waterfowl Production Area, and Buhaug Lake; the existing transmission line crosses all of these PWI waterbodies. The U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) mapping identifies approximately 23.5 acres of wetland within the Project area (**Figures 3a and 3b**). The NWI wetlands consist of freshwater emergent wetlands, freshwater forested/shrub wetlands, freshwater ponds, and riverine wetlands (primarily roadside ditches adjacent and parallel to the existing transmission line). One of the NWI wetlands in the eastern part of the Project area is listed in the Minnesota PWI; the existing transmission line crosses this PWI wetland.

1.5 Soil Resources

Soil information for the Project area was obtained from the U.S. Department of Agriculture (USDA)-NRCS Soil Survey Geographic Database (USDA-NRCS 2023). There are 44 soil map units located within the Project area (**Table 1, Figures 4a** though **4d**). The Project area is not dominated by any particular soil map units, with each of the 44 soil map units representing between 11 percent and less than 0.1 percent of the Project area.

Hydric soils are defined by the National Technical Committee for Hydric Soils as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (NRCS 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation. Soils are classified as hydric using the following ratings:

- Hydric (100%),
- Predominantly hydric (67%-99%),
- Partially hydric (>33%-<67%),
- Predominantly non-hydric (>0%-<34%),
- Not hydric (0%)

Approximately 65 percent of the Project area is mapped as predominantly non-hydric, with the remaining 35 percent mapped as predominantly hydric (15%), hydric (~14%), non-hydric (~5%), and partially hydric (~1%) (**Figures 4a through 4d**). Confirmation of hydric soils is a field-based process that is based on *Field Indicators of Hydric Soils in the United States, Version 8.2* (USDA-NRCS 2018); field-based confirmation was not completed for this off-site, desktop-based review.

2.0 Off-site Wetland Determination Methodology

The Level I Desktop Wetland Determination included an off-site review of existing data to identify portions of the Project area that have higher potential to contain wetlands. Specifically, the desktop determination included a review of the following data sources:

- Topography (LiDAR 2-foot contours and digital elevation model)
- Precipitation data
- Hydric soil mapping
- Multiple years of Farm Service Agency historic aerial imagery - true color and color-infrared when available (2003, 2006, 2008-2010, 2013, 2015, 2017, 2019, and 2021)

Barr evaluated historic aerial imagery to identify potential wetland locations. The historic aerial imagery was evaluated in the context of precipitation conditions to identify normal, wet, and dry years. As noted above, out of the 9 years where aerial images were available for the Project area, 6 years had antecedent precipitation levels within the normal range, 1 year had antecedent precipitation levels below the normal range (dry), and 2 years had antecedent precipitation levels above the normal range (wet).

Potential wetland areas were identified and then assessed to determine the number of wet signatures observed throughout the evaluated years. The potential wetland areas were identified as wetland using the decision matrix in Exhibit 2 of the Guidance for Offsite Hydrology/Wetland Determinations (USACE and BWSR 2016). This decision matrix steps through the possible scenarios in determining whether an

area is a wetland or not based on the presence or absence of hydric soil, NWI mapping, and wet signatures on aerial imagery.

3.0 Off-Site Wetland Determination Results

The off-site wetland determination evaluated 51 potential wetland areas within the Project area. **Figures 5** through **13** provide a visual overview of the potential wetland areas for each year evaluated. Results of the historic aerial imagery review are provided in **Appendix B** and shown on **Figure 14**. **Table 2** provides a summary of the off-site wetland determination, including acreages and wetland classification by Eggers and Reed, Cowardin (Cowardin et al. 1979), and Circular 39 (U.S. Fish and Wildlife Service 1956).

Out of the 51 wetland areas evaluated, 43 areas met the off-site hydrology determination requirements to be classified as wetlands. The following eight areas were determined to not be wetland: 5, 9, 11, 12, 24, 26, 38, and 41. These areas did not have wetland signatures for most of the years that were evaluated. Therefore, these locations are likely not saturated long enough to meet the hydrology criteria to be classified as wetlands.

4.0 Regulatory

The USACE regulates the placement of dredge or fill materials into navigable waterbodies or wetlands that are located adjacent to or are hydrologically connected to interstate or navigable waters under the authority of Section 404 of the Clean Water Act. Project-related impacts to USACE jurisdictional wetlands require authorization from the USACE.

Filling, excavating, and draining wetlands are also regulated by the Minnesota Wetland Conservation Act and the Minnesota Public Waters Inventory Program, which are administered by Clay County Soil and Water Conservation District (SWCD) and the Minnesota Department of Natural Resources respectively. The SWCD, MDNR, and the USACE, should be contacted before altering any aquatic resources in the Project area.

References

Cowardin, L.M., V. Carter, F.C. Golet, and R.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Fish and Wildlife Service, FWS/OBS079/31, 103 pp.

Eggers, S.D. and Reed, D.M. 2015. *Wetland Plants and Plant Communities of Minnesota and Wisconsin*. Version 3.2. U.S. Army Corps of Engineers, St. Paul District. St. Paul, Minnesota, July 2015.

Natural Resources Conservation Service. 1994. Changes in Hydric Soils of the United States. Federal Register Document Number 94-16835.

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U. S. Department of Agriculture, Natural Resources Conservation Service. 2023. Web Soil Survey/ Accessed at Web Soil Survey - Home (usda.gov).

U.S. Fish and Wildlife Service. 1956. *Wetlands of the United States Circular 39*. U.S. Government Printing Office, Washington, D.C.

Tables

Table 1 Soils within Project Area

Map Unit Symbol	Map Unit Name	Hydric rating	Acres in Project Area	Percent of Project Area
I377A	Wheatville silt loam, 0 to 2 percent slopes	10%	27.6	11.2%
I467A	Bearden silt loam, 0 to 2 percent slopes	10%	23.8	9.6%
903B	Hokans-Buse complex, 2 to 6 percent slopes	10%	19.3	7.8%
I229A	Fargo silty clay, 0 to 1 percent slopes	100%	17.6	7.1%
I634A	Augsburg silt loam, 0 to 1 percent slopes	95%	13.5	5.5%
58B	Kittson loam, 1 to 5 percent slopes	6%	12.9	5.2%
I356A	Ulen fine sandy loam, 0 to 2 percent slopes	12%	12.4	5.0%
I235A	Fargo silty clay, depressional, 0 to 1 percent slopes	100%	11.1	4.5%
I248A	Wahpeton silty clay, 0 to 2 percent slopes, occasionally flooded	12%	10.7	4.3%
I507A	Glyndon loam, 0 to 2 percent slopes	8%	9.9	4.0%
I641A	Fargo silty clay, silty substratum, 0 to 1 percent slopes	95%	9.1	3.7%
I729A	Wyndmere, moderately saline-Wyndmere fine sandy loams, 0 to 2 percent slopes	5%	8.0	3.3%
I849A	Kittson fine sandy loam, wet, 0 to 2 percent slopes	5%	7.6	3.1%
I672B	Sioux sandy loam, 2 to 6 percent slopes	0%	6.7	2.7%
I642A	Fargo silty clay, silty substratum, depressional, 0 to 1 percent slopes	100%	5.8	2.4%
942C2	Langhei-Barnes, moderately eroded, complex, 6 to 12 percent slopes	3%	5.4	2.2%
I312A	Wyndmere fine sandy loam, 0 to 2 percent slopes	7%	5.1	2.0%
184B	Balaton-Hamerly complex, 1 to 4 percent slopes	10%	4.9	2.0%
I376A	Colvin silty clay loam, 0 to 1 percent slopes	95%	4.2	1.7%
1055	Quam, Cathro, and Urness soils, frequently ponded, 0 to 1 percent slopes	95%	4.1	1.6%
I383A	Overly silty clay loam, 0 to 2 percent slopes	5%	3.9	1.6%
I248B	Wahpeton silty clay, 2 to 6 percent slopes, occasionally flooded	5%	3.3	1.3%
I716A	Arveson clay loam, 0 to 1 percent slopes	95%	2.7	1.1%
W/Iwa	Water	0%	2.2	0.9%
I24A	Grimstad fine sandy loam, 0 to 2 percent slopes, aspen parkland	15%	1.8	0.7%
I16F	Fluvaquents,frequently flooded-Hapludolls complex, 0 to 30 percent slopes	58%	1.6	0.6%
I293B	Cashel silty clay, 0 to 6 percent slopes, occasionally flooded	8%	1.4	0.6%
I795A	Lamoure silt loam, 0 to 2 percent slopes, frequently flooded	90%	1.3	0.5%

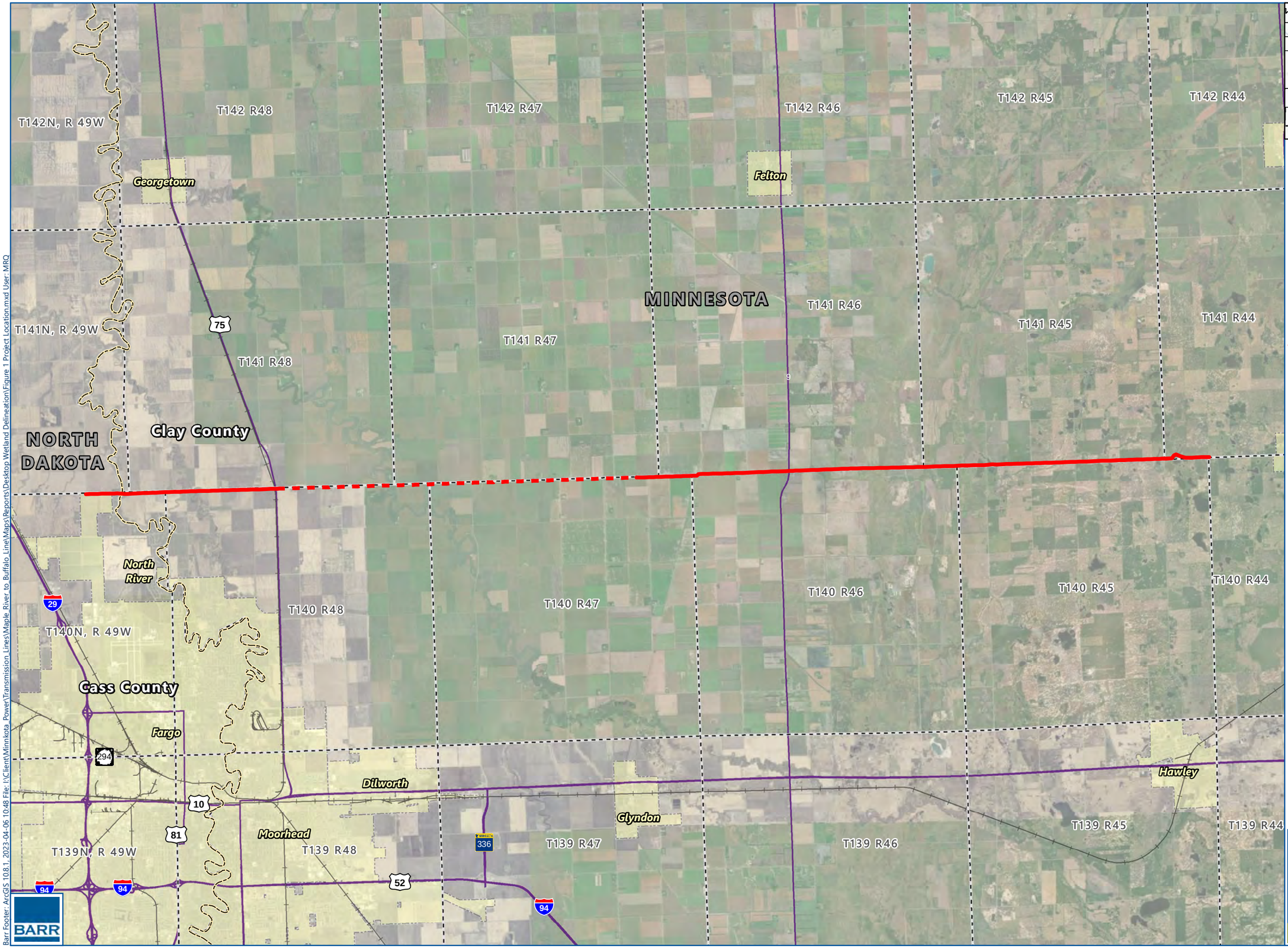
Map Unit Symbol	Map Unit Name	Hydric rating	Acres in Project Area	Percent of Project Area
IGp	Pits, gravel and sand	0%	1.3	0.5%
I673B	Lohnes coarse sandy loam, 2 to 6 percent slopes	0%	1.0	0.4%
I19A	Foxhome sandy loam, 0 to 2 percent slopes	15%	1.0	0.4%
236	Vallers clay loam, 0 to 2 percent slopes	90%	0.9	0.4%
I674A	Lohnes sandy loam, 0 to 2 percent slopes	0%	0.7	0.3%
I699A	Rockwell loam, 0 to 1 percent slopes	95%	0.7	0.3%
I248C	Wahpeton silty clay, 6 to 9 percent slopes, occasionally flooded	0%	0.6	0.3%
I475B	Sinai silty clay, levees, 0 to 6 percent slopes	13%	0.6	0.3%
I15A	Hecla loamy fine sand, 0 to 2 percent slopes	5%	0.5	0.2%
36	Lakepark-Parnell, occasionally ponded, complex, 0 to 2 percent slopes	95%	0.5	0.2%
I149E	Cashel-Fluvaquents, channeled complex, 0 to 25 percent slopes, frequently flooded	42%	0.4	0.2%
344	Quam silty clay loam, occasionally ponded, 0 to 1 percent slopes	98%	0.4	0.1%
I672C	Sioux sandy loam, 6 to 15 percent slopes	0%	0.3	0.1%
I683A	Flom clay loam, 0 to 1 percent slopes	95%	0.2	0.1%
I119A	Bearden silty clay loam, 0 to 2 percent slopes	10%	0.2	0.1%
I18A	Foldahl loamy fine sand, loamy till substratum, 0 to 3 percent slopes	16%	0.0	0.0%

Table 2 Off-Site Wetland Determination Summary

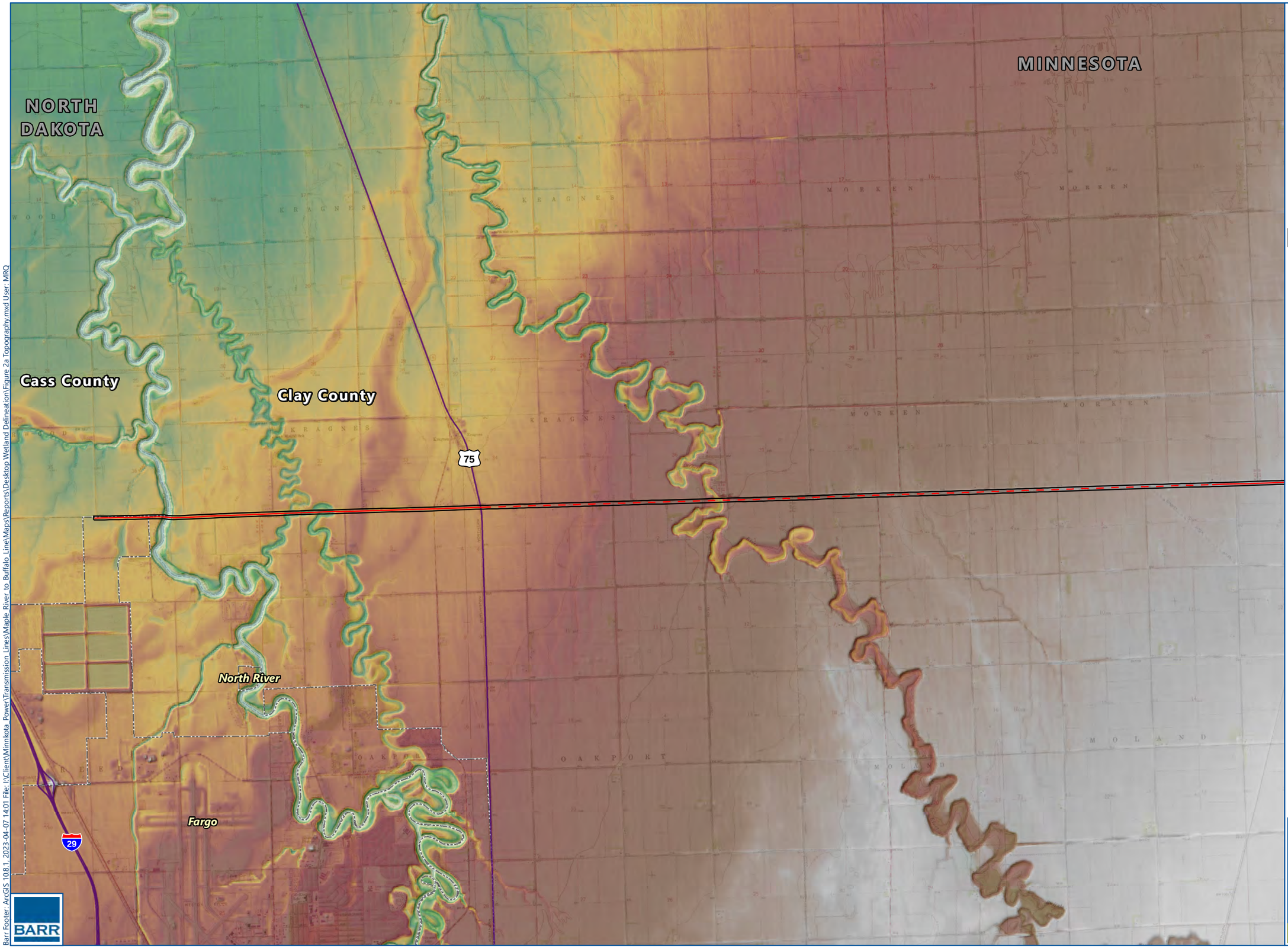
Area ID	Eggers and Reed	Cowardin Classification	Circular 39	Acreage
1	Seasonally flooded basin	PEMB	1	0.06
2	Riverine	RUBH	90	0.26
3	Seasonally flooded basin	PEMA	1	0.93
4	Seasonally flooded basin	PEMA	1	1.96
5	Upland	N/A	N/A	0
6	Seasonally flooded basin	PEMAf	1	0.13
7	Seasonally flooded basin	PEMAf	1	0.24
8	Shallow marsh	PEMC	3	0.12
9	Upland	N/A	N/A	0
10	Seasonally flooded basin	PEMAf	1	0.10
11	Upland	N/A	N/A	0
12	Upland	N/A	N/A	0
13	Floodplain forest	PFOA	1	0.04
14	Riverine	RUBH	90	0.12
15	Floodplain forest	PFOA	1	0.25
16	Seasonally flooded basin	PEMAd	1	0.02
17	Seasonally flooded basin	PEMAd	1	1.61
18	Seasonally flooded basin	PEMAd	1	0.65
19	Seasonally flooded basin	PEMAd	1	0.37
20	Seasonally flooded basin	PEMAf	1	0.35
21	Seasonally flooded basin	PEMAd	1	0.02
22	Seasonally flooded basin	PEMAd	1	1.93
23	Seasonally flooded basin	PEMAd	1	1.40
24	Upland	N/A	N/A	0
25	Shallow marsh	PEMC	3	0.18
26	Upland	N/A	N/A	0
27	Seasonally flooded basin	PEMAd	1	0.27
28	Seasonally flooded basin	PEMAd	1	0.58
29	Shrub swamp	PSSB	6	0.45
30	Floodplain forest	PFOA	1	0.09
31	Seasonally flooded basin	PEMAf	1	0.14
32	Seasonally flooded basin	PEMAf	1	0.20
33	Shallow marsh	PEMC	3	0.21
34	Shallow, open water	PUBH	5	1.23
35	Shallow marsh	PEMC	3	0.18

Area ID	Eggers and Reed	Cowardin Classification	Circular 39	Acreage
36	Shallow, open water	PUBH	5	0.66
37	Shallow marsh	PEMC	3	0.89
38	Upland	N/A	N/A	0
39	Shallow marsh	PEMC	3	0.37
40	Shallow marsh	PEMC	3	0.40
41	Upland	N/A	N/A	0
42	Seasonally flooded basin	PEMAd	1	0.31
43	Shallow marsh	PEMC	3	0.97
44	Shallow marsh	PEMC	3	1.97
45	Seasonally flooded basin	PEMA	1	0.23
46	Seasonally flooded basin	PEMAf	1	0.21
47	Shallow marsh	PEMC	3	0.81
48	Shallow, open water	PUBH	5	1.89
49	Shallow marsh	PEMC	3	0.18
50	Shallow marsh	PEMC	3	0.35
51	Seasonally flooded basin	PEMA	1	0.26
			Total Wetland Area	**23.59**

Figures



Barr Footer: ArcGIS 10.8.1, 2023-04-06 10:48 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 1 Project Location.mxd User: MRQ



County Boundary
Municipality
Major Highway

Elevation (feet)

High : 923.7
Low : 855.1

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

N

0 0.5 1
Miles

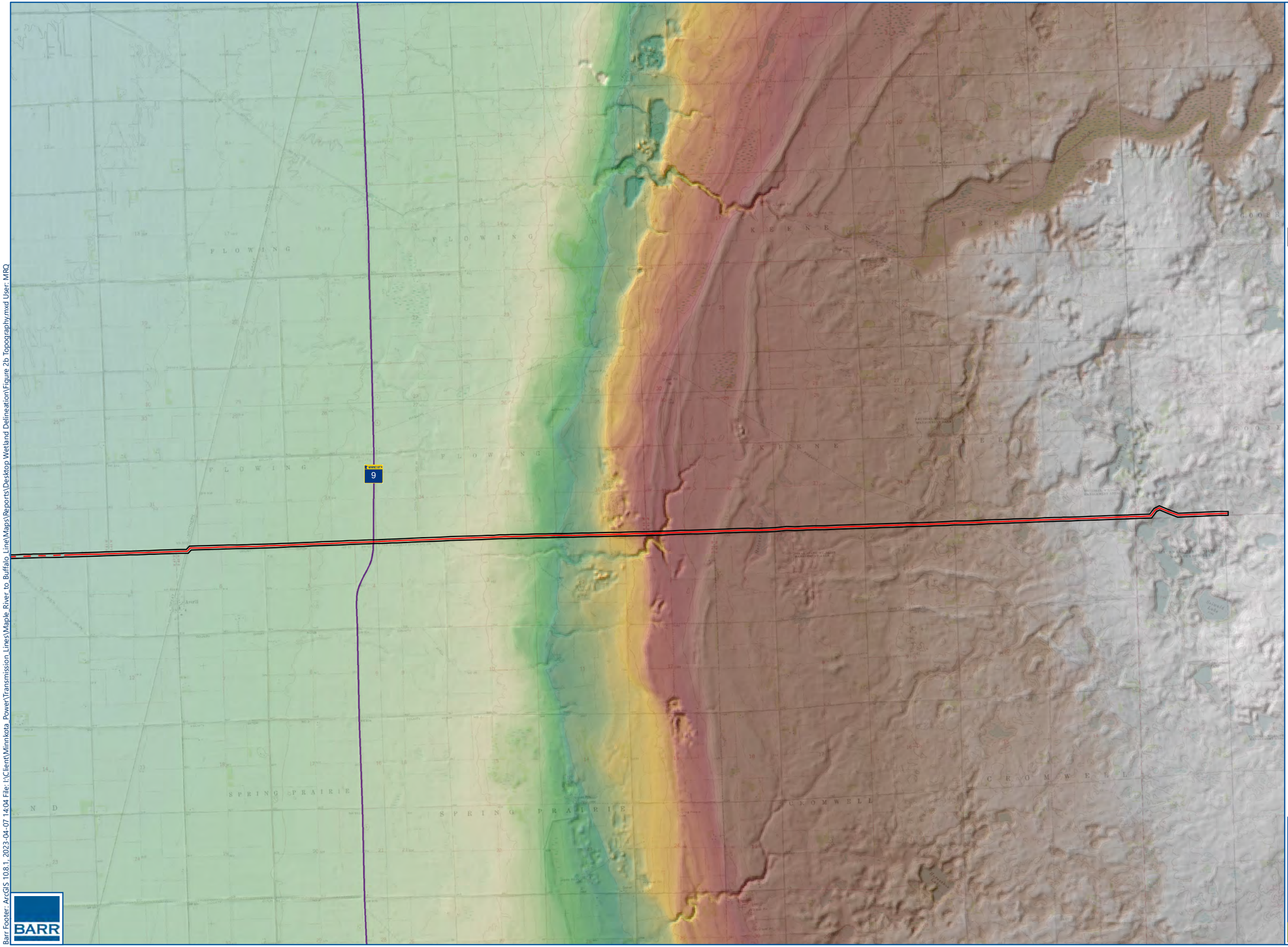
Imagery: USGS 24k DRG

TOPOGRAPHY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 2a

BARR

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Major Highway

Stream (USGS NHD)

NWI Wetland

Elevation (feet)

High : 1,264.1

Low : 898.0

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 0.5 1

Miles

Imagery: USGS 24k DRG

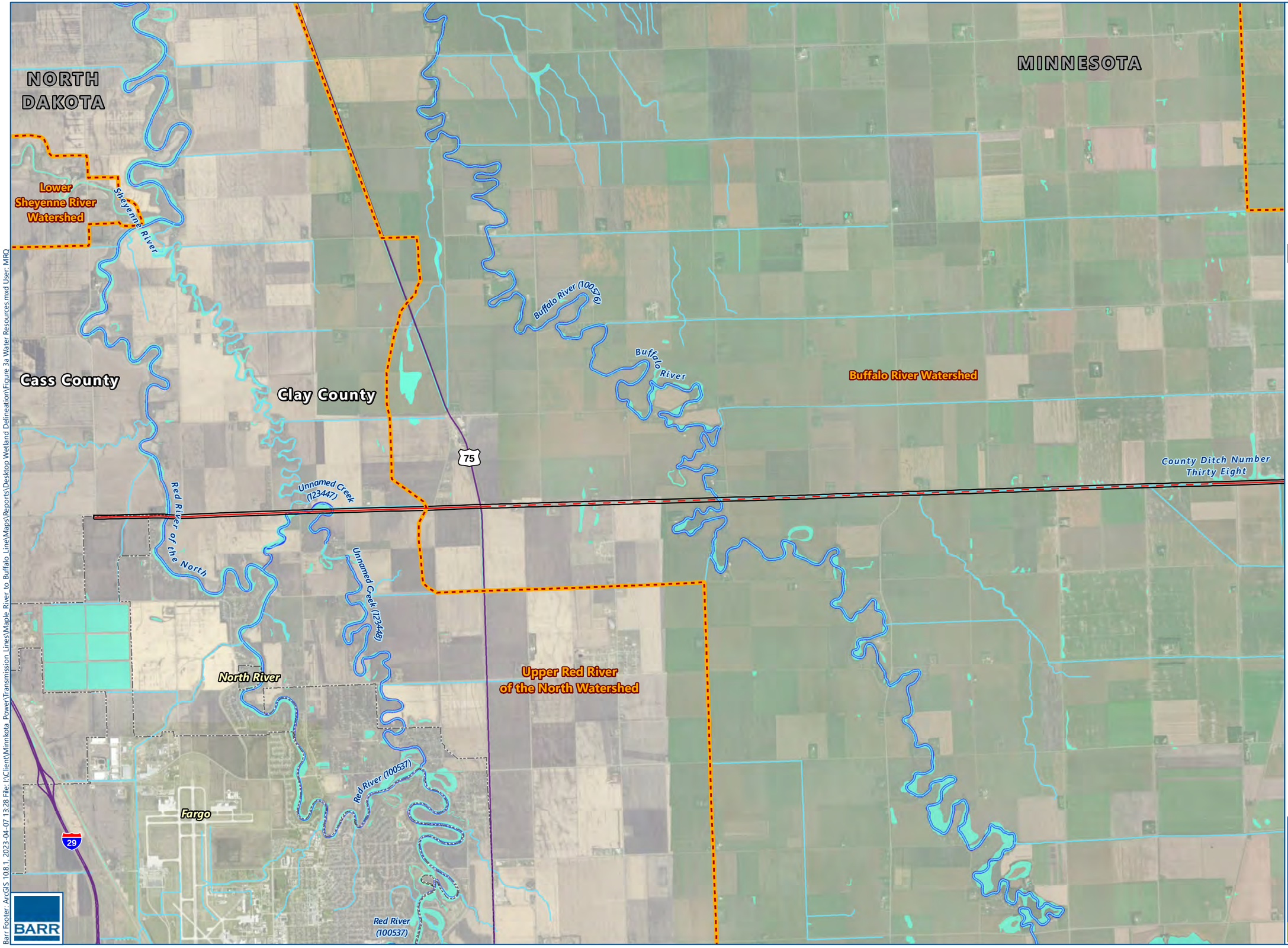
TOPOGRAPHY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 2b

BARR

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County Boundary
Municipality
Major Highway
Stream (USGS NHD)
Public Water Watercourse
NWI Wetland
Major Watershed Boundary

Proposed Project Features

Alignment
Underbuild Alignment
Easement (80' Wide)

N

0 0.5 1
Miles

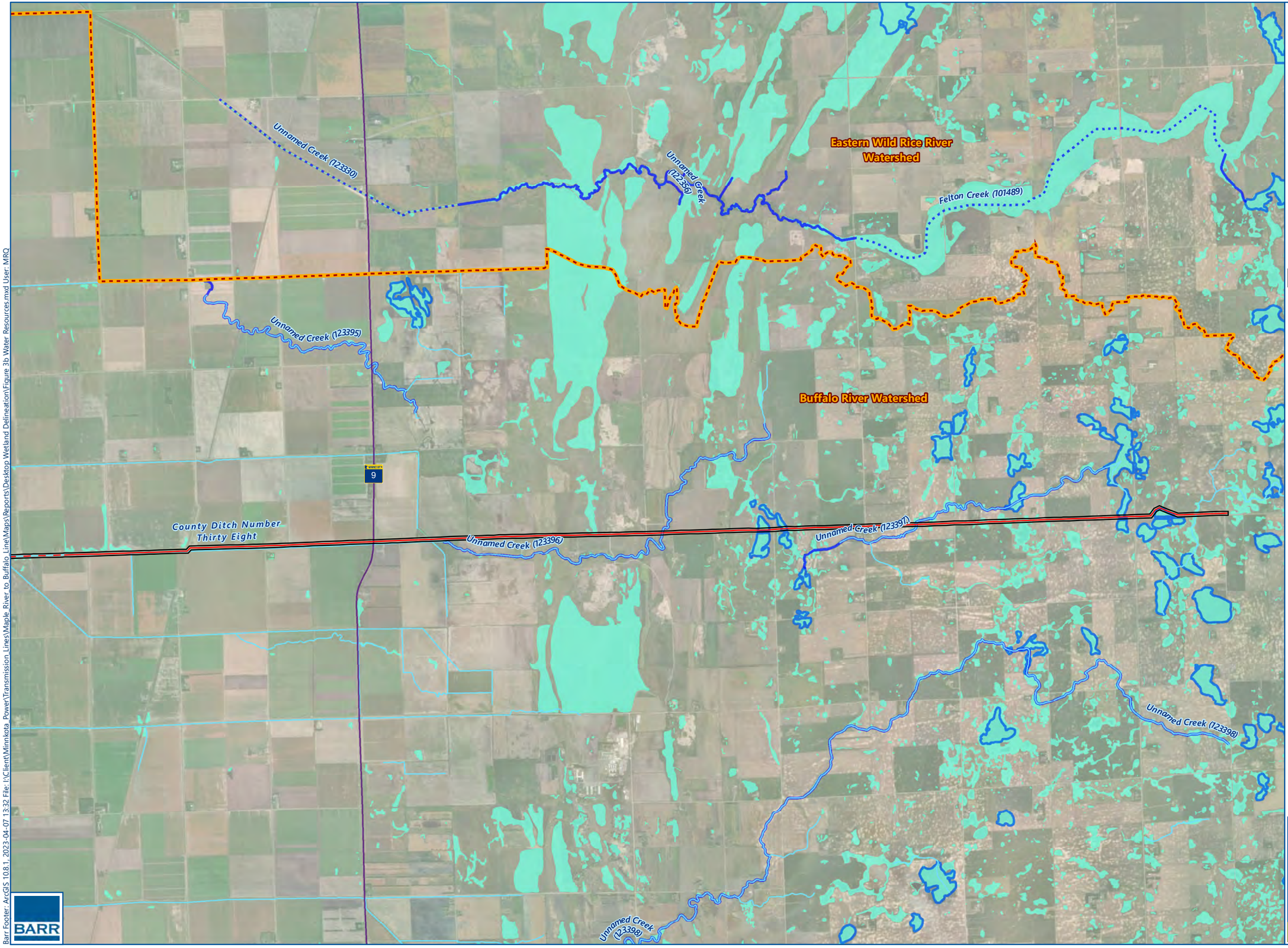
Imagery: Esri World Imagery

WATER RESOURCES
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 3a

BARR

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WATER RESOURCES
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 3b

BARR

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Clay County

Cass County

Fargo

North River

75

IM-W

County Boundary
Municipality
Major Highway

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

SSURGO Soil Unit

Hydric Rating

Non-Hydric (0%)
Predominantly Non-Hydric (0-32%)
Partially Hydric (33-65%)
Predominantly Hydric (66-99%)
Hydric (100%)

Data Source:
Soil Survey Staff, NRCS USDA. Soil Survey Geographic (SSURGO) Database. Available online at: https://sdmdataaccess.sc.egov.usda.gov. Accessed 11/14/2022.

N

0 1,500 3,000
Feet

Imagery: Esri World Imagery

SOIL RESOURCES
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 4a

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-20 08:54 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 4a Soil Resources.mxd User: MRQ

Proposed Project Features

- Alignment
- Underbuild Alignment
- Right-of-Way (80' Wide)

SSURGO Soil Unit

Hydric Rating

- Non-Hydric (0%)
- Predominantly Non-Hydric (0-32%)
- Partially Hydric (33-65%)
- Predominantly Hydric (66-99%)
- Hydric (100%)

Data Source:
Soil Survey Staff, NRCS USDA. Soil Survey Geographic (SSURGO) Database. Available online at: https://sdmdataaccess.sc.egov.usda.gov. Accessed 11/14/2022.

N

0 1,500 3,000

Feet

Imagery: Esri World Imagery

SOIL RESOURCES

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 4b

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Major Highway

Proposed Project Features

Alignment

Right-of-Way (80' Wide)

SSURGO Soil Unit

Hydric Rating

Non-Hydric (0%)

Predominantly Non-Hydric (0-32%)

Partially Hydric (33-65%)

Predominantly Hydric (66-99%)

Hydric (100%)

Data Source:
Soil Survey Staff, NRCS USDA. Soil Survey Geographic (SSURGO) Database. Available online at: https://sdmdataaccess.sc.egov.usda.gov. Accessed 11/14/2022.

N

0 1,500 3,000

Feet

Imagery: Esri World Imagery

SOIL RESOURCES

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 4c

BARR

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Municipality

Proposed Project Features

Alignment

Right-of-Way (80' Wide)

SSURGO Soil Unit

Hydric Rating

Non-Hydric (0%)

Predominantly Non-Hydric (0-32%)

Partially Hydric (33-65%)

Predominantly Hydric (66-99%)

Hydric (100%)

Data Source:
Soil Survey Staff, NRCS USDA. Soil Survey Geographic (SSURGO) Database. Available online at: https://sdmdataaccess.sc.egov.usda.gov. Accessed 11/14/2022.

N

0 1,500 3,000

Feet

Imagery: Esri World Imagery

SOIL RESOURCES

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 4d

Hitterdal

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-1

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION 2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-2

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-3

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

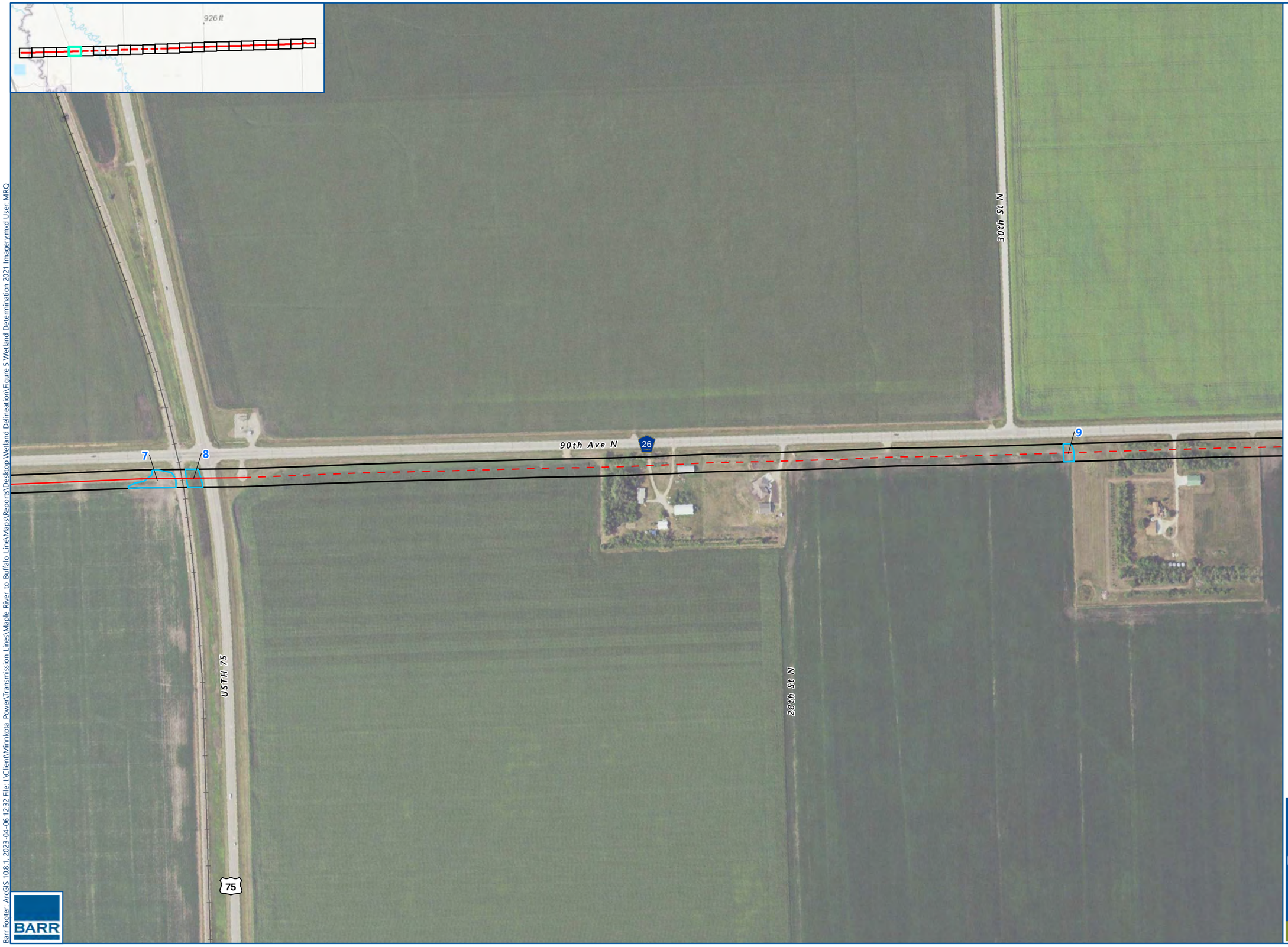
OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-4

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION 2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-5

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-6

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-7

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-8

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32, File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-9

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

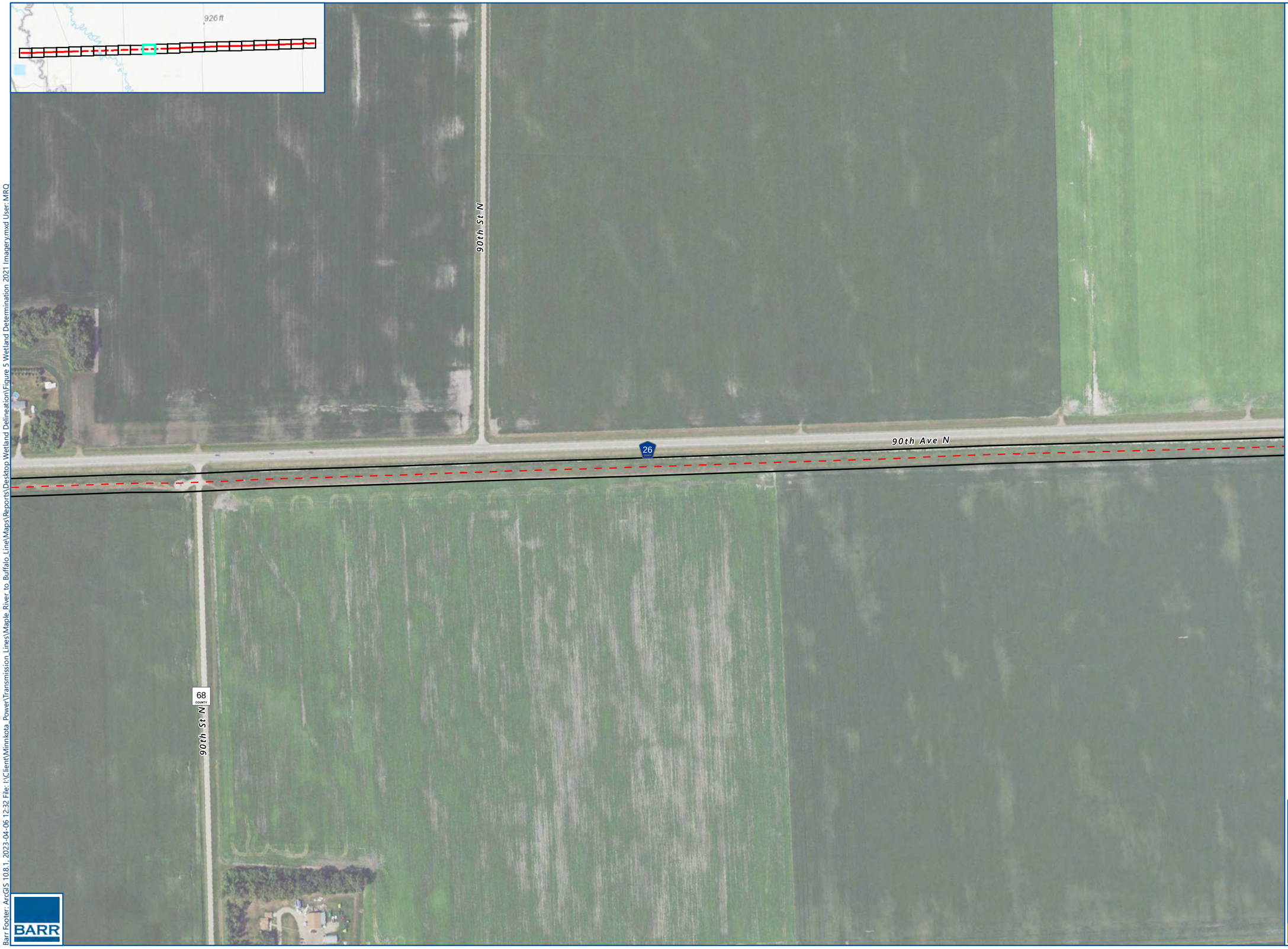
OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-10

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION 2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-11

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-12

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-13

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION 2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-14

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION 2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-15

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-16

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION 2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-17

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-18

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-19

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-20

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-21

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION 2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-22

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

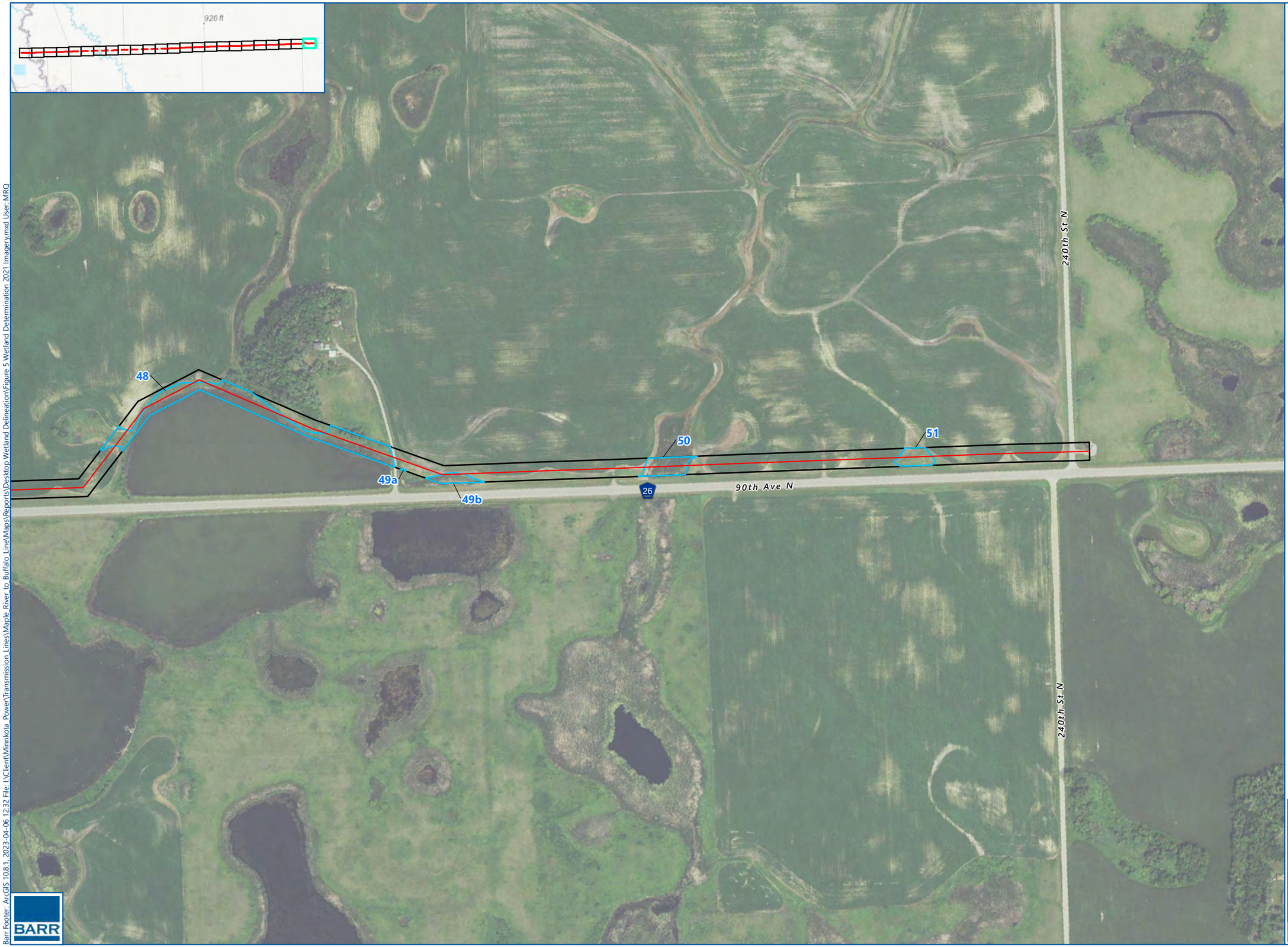
OFF-SITE WETLAND DETERMINATION
2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-23

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION 2021 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 5-24

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 12:32 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 5 Wetland Determination 2021 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-1

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-2

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-3

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-4

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-5

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-6

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-7

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-8

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-9

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

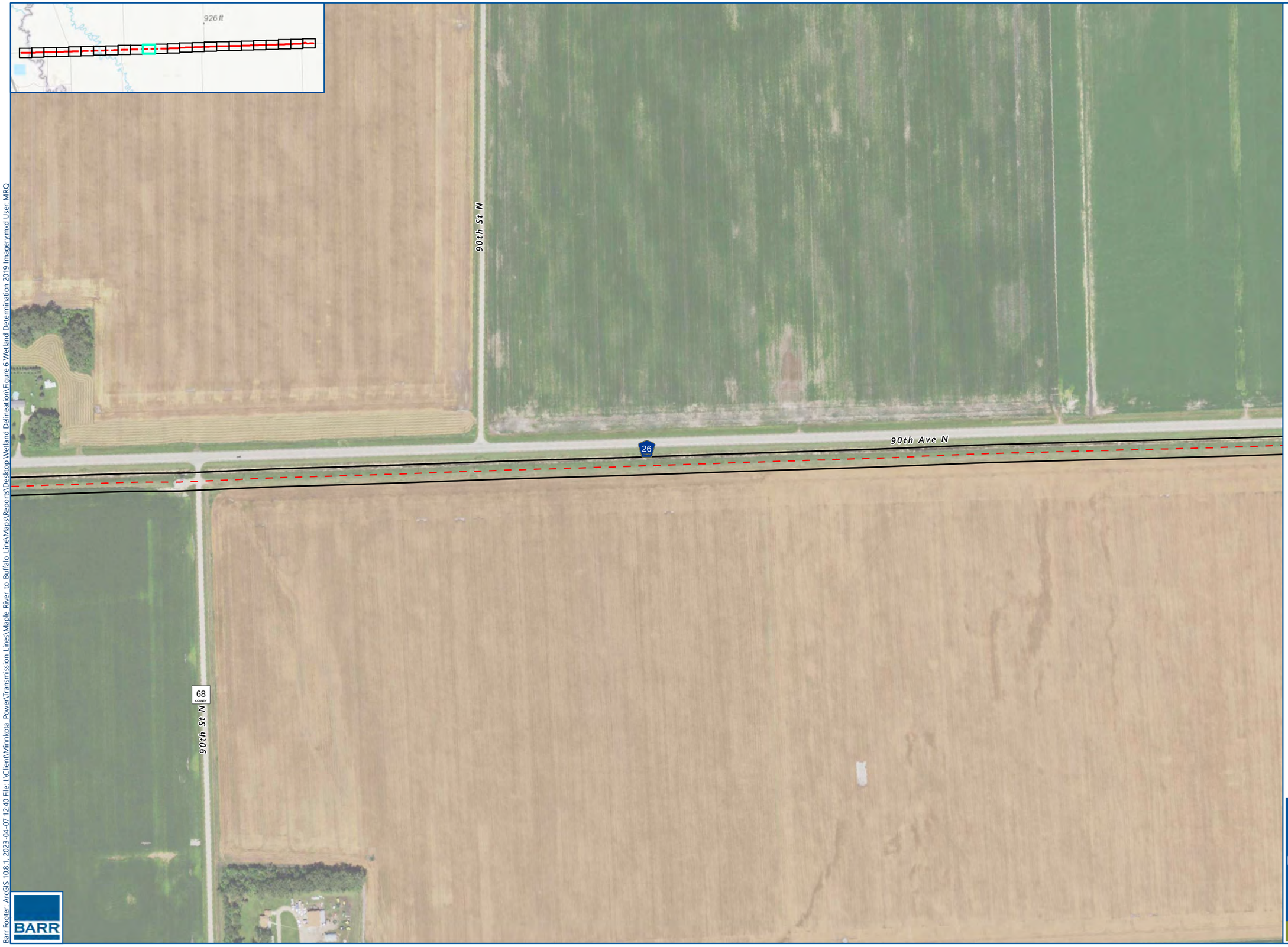
OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-10

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-11

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-12

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

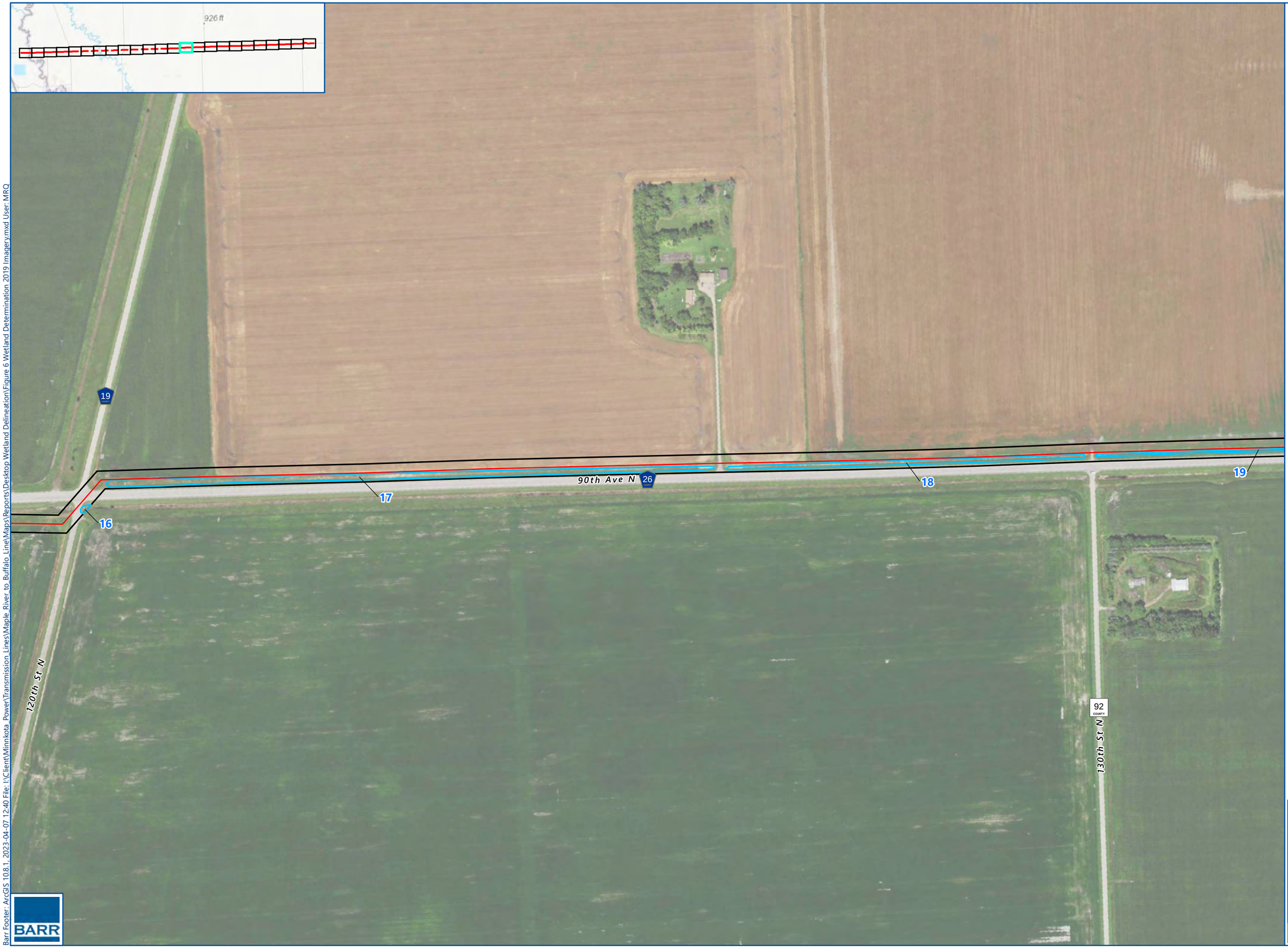
OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-13

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-14

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-15

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-16

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-17

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-18

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-19

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-20

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-21

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

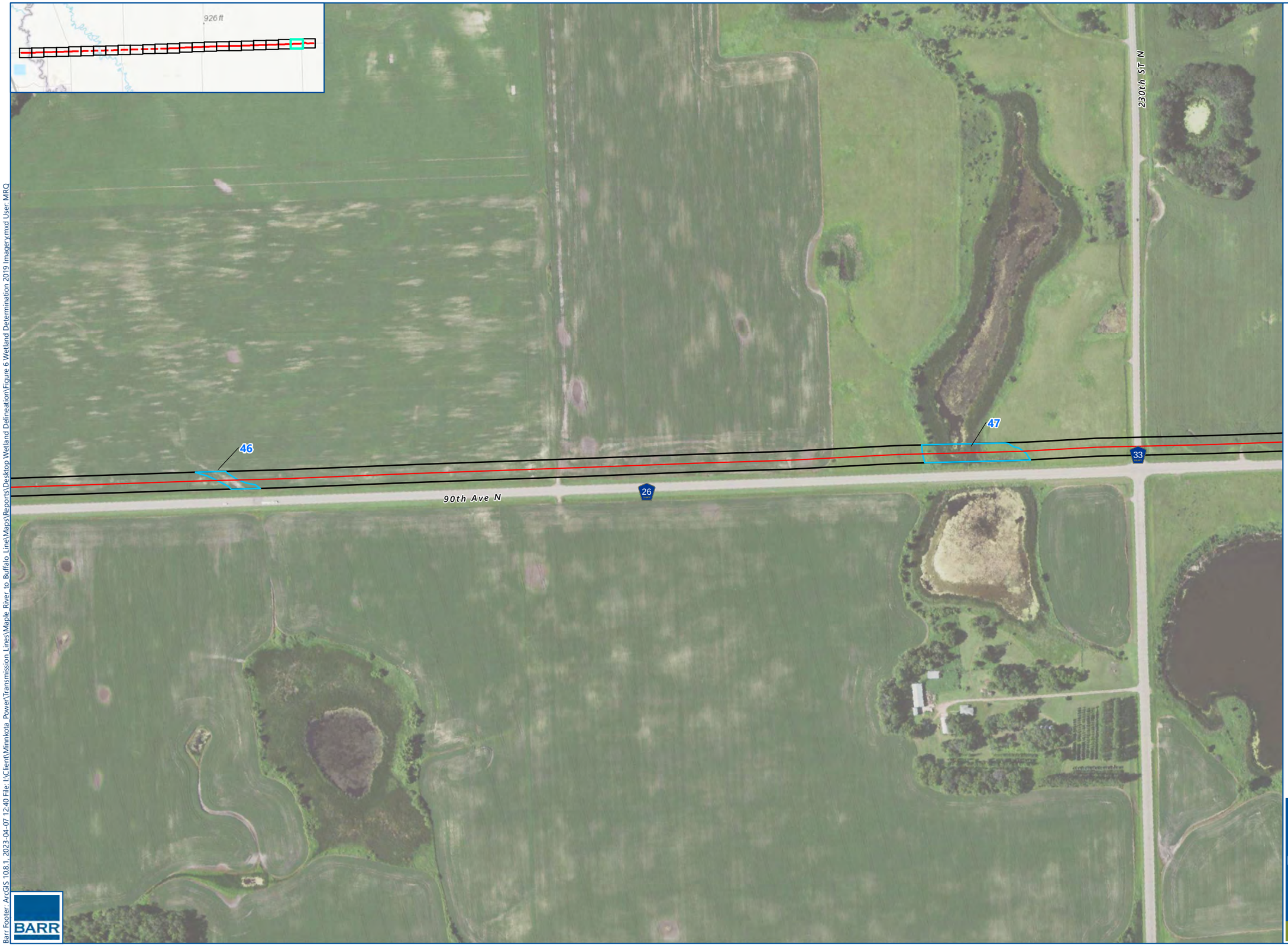
OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-22

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

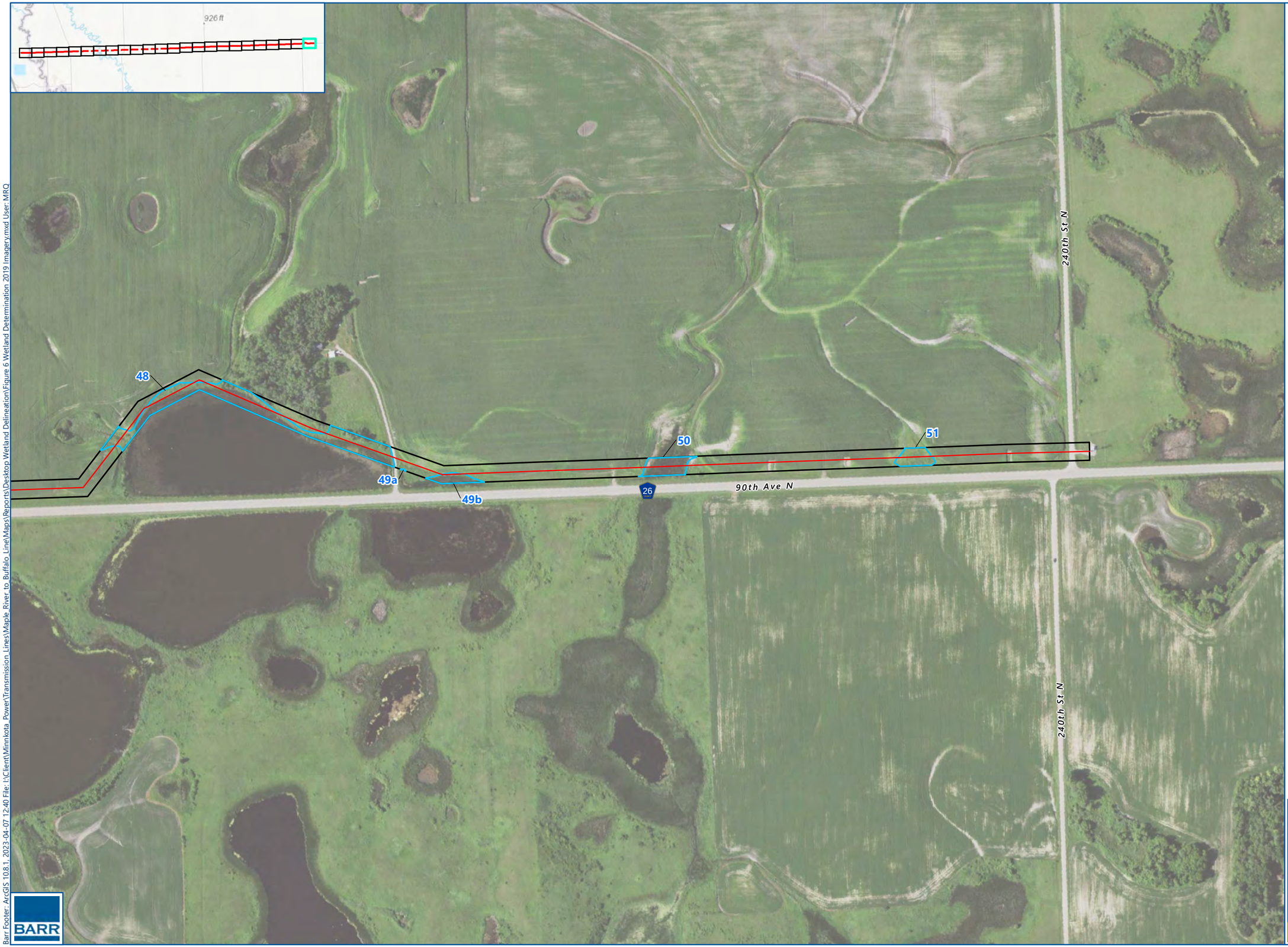
OFF-SITE WETLAND DETERMINATION
2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-23

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

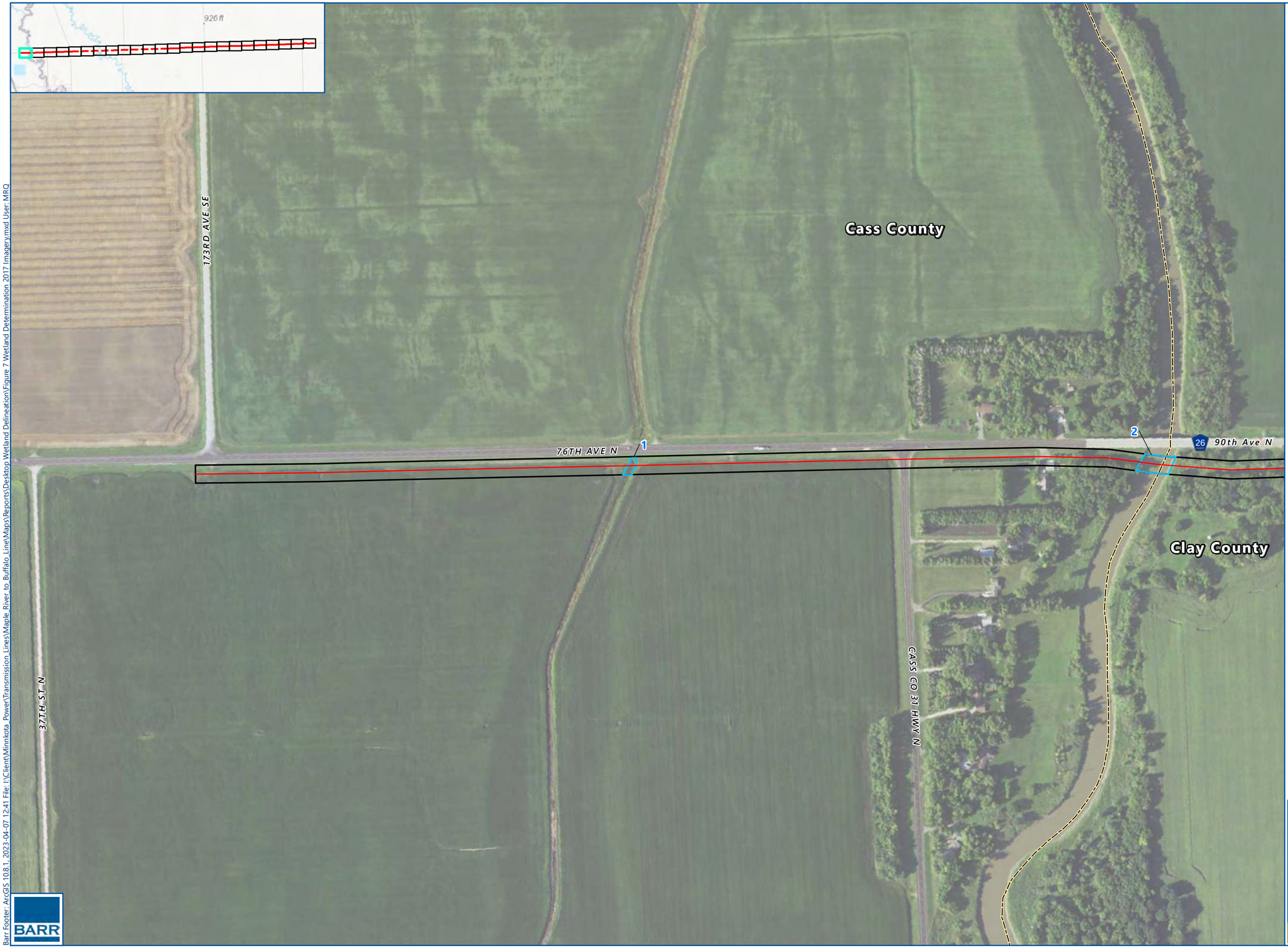
OFF-SITE WETLAND DETERMINATION 2019 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 6-24

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:40 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 6 Wetland Determination 2019 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-1

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:41 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 7 Wetland Determination 2017 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-2

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-3

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-4

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-5

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

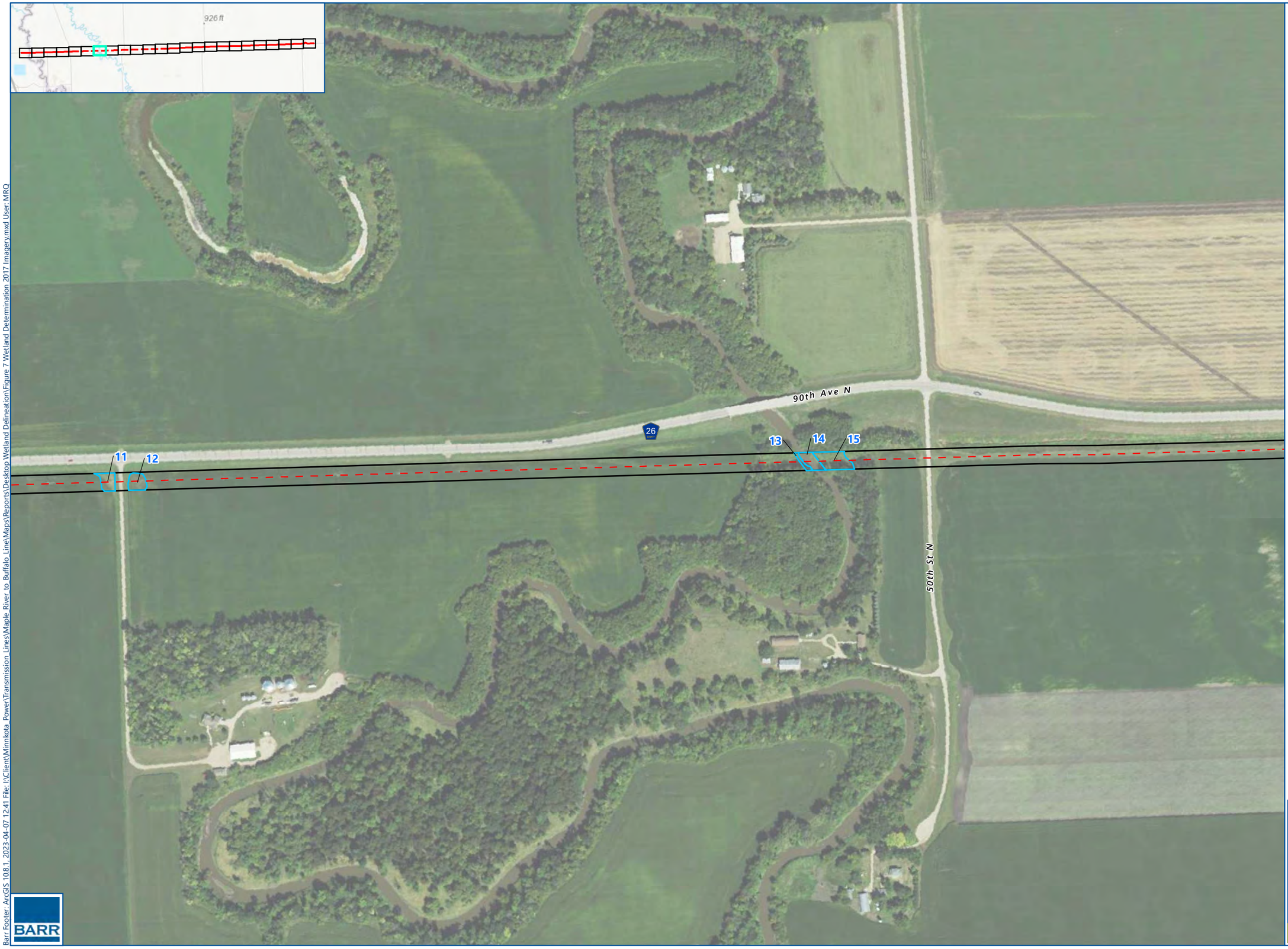
OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-6

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-7

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-8

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:41 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 7 Wetland Determination 2017 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-9

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:41 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 7 Wetland Determination 2017 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-10

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-11

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-12

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2017 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-13

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-14

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-15

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-16

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-17

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-18

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-19

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-20

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

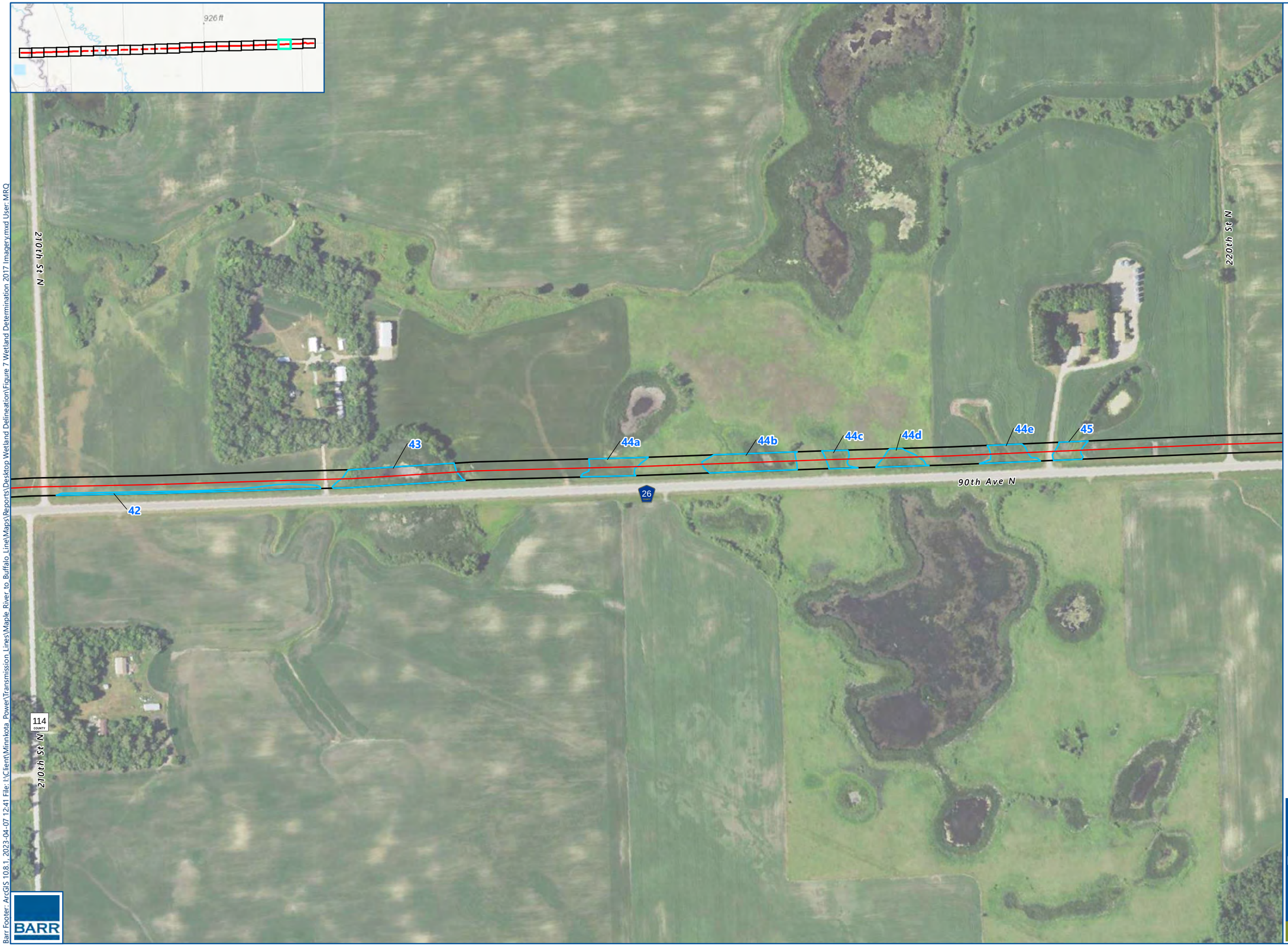
OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-21

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-22

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-23

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2017 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 7-24

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-1

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-2

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-3

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

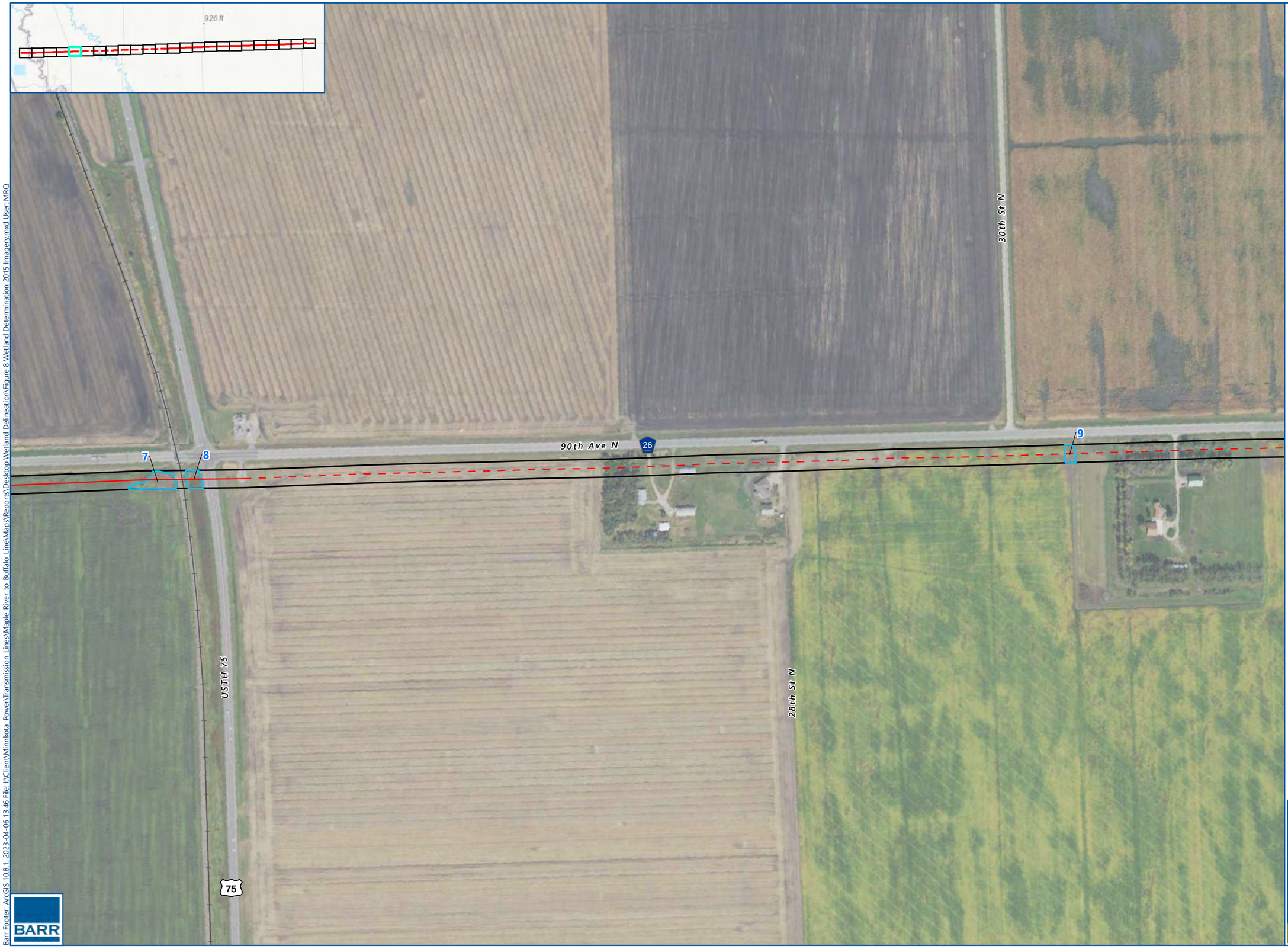
OFF-SITE WETLAND DETERMINATION
2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-4

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-5

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-6

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-7

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-8

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-9

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Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-10

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-11

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-12

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-13

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-14

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-15

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Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-16

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-17

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-18

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2015 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-19

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-20

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-21

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-22

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

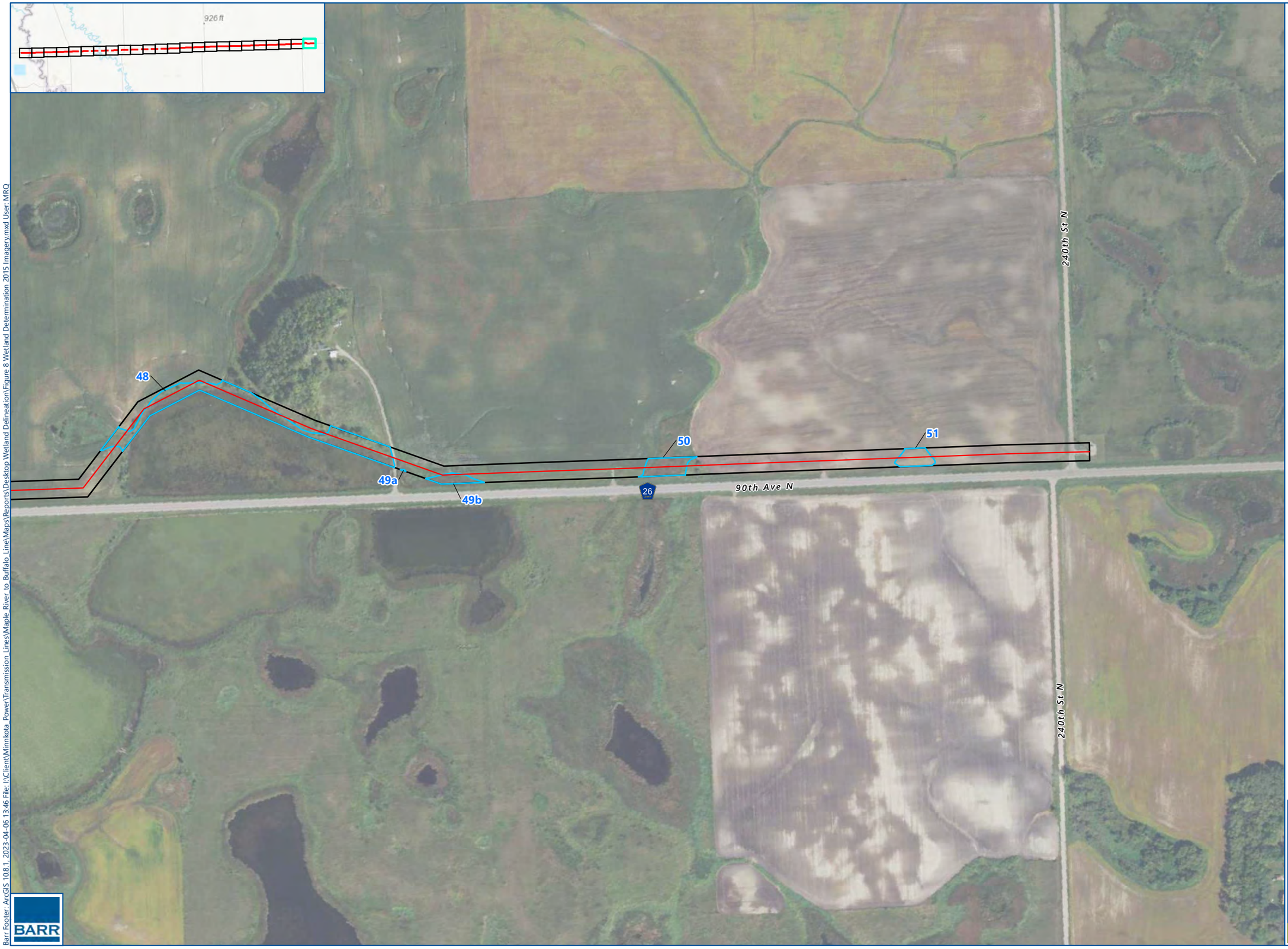
OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-23

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-06 13:46 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 8 Wetland Determination 2015 Imagery.mxd User: MRQ



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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2015 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 8-24



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-1

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-2

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-3

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

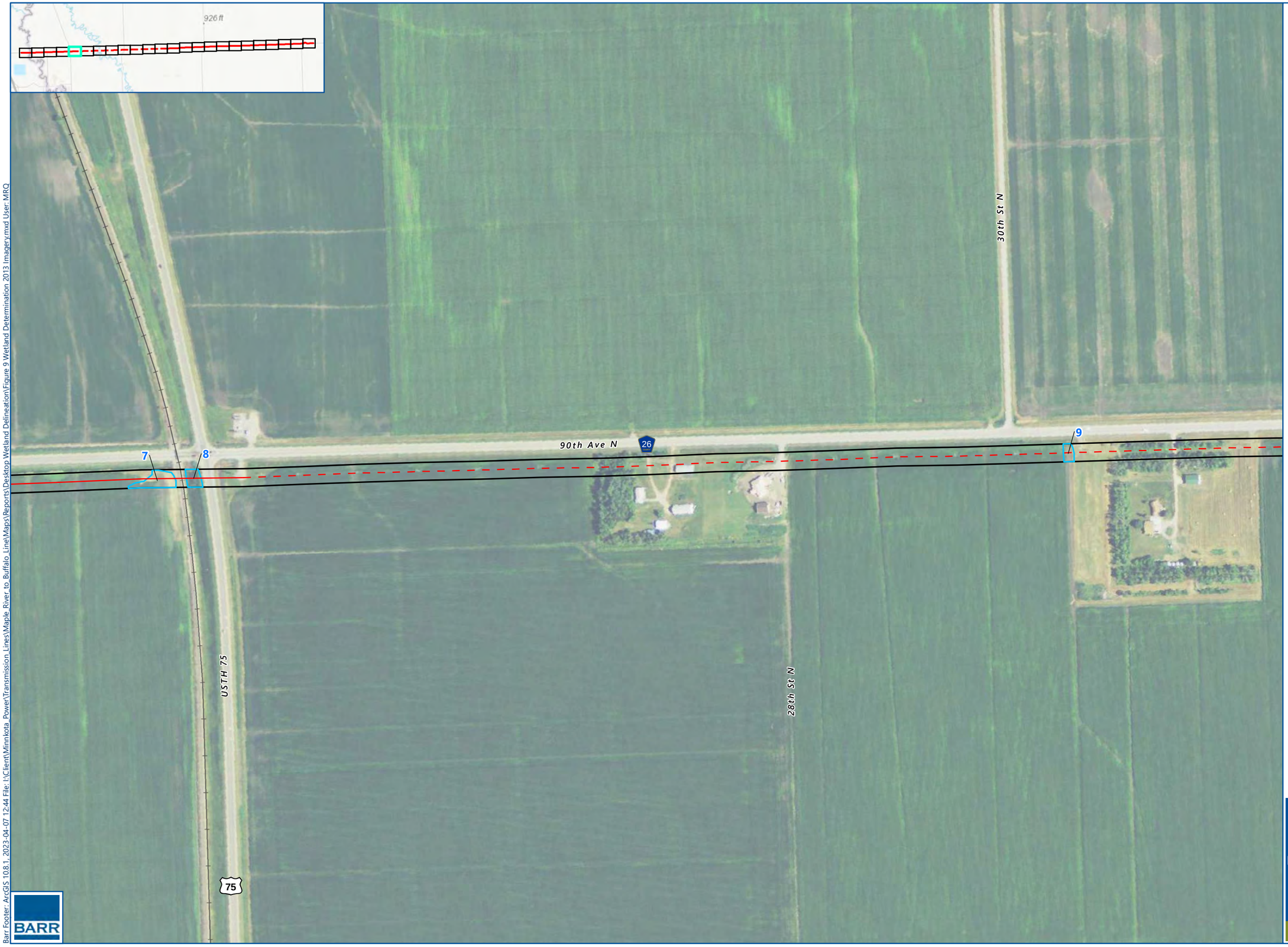
OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-4

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-5

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-6

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-7

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-8

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-9

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-10

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-11

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-12

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-13

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

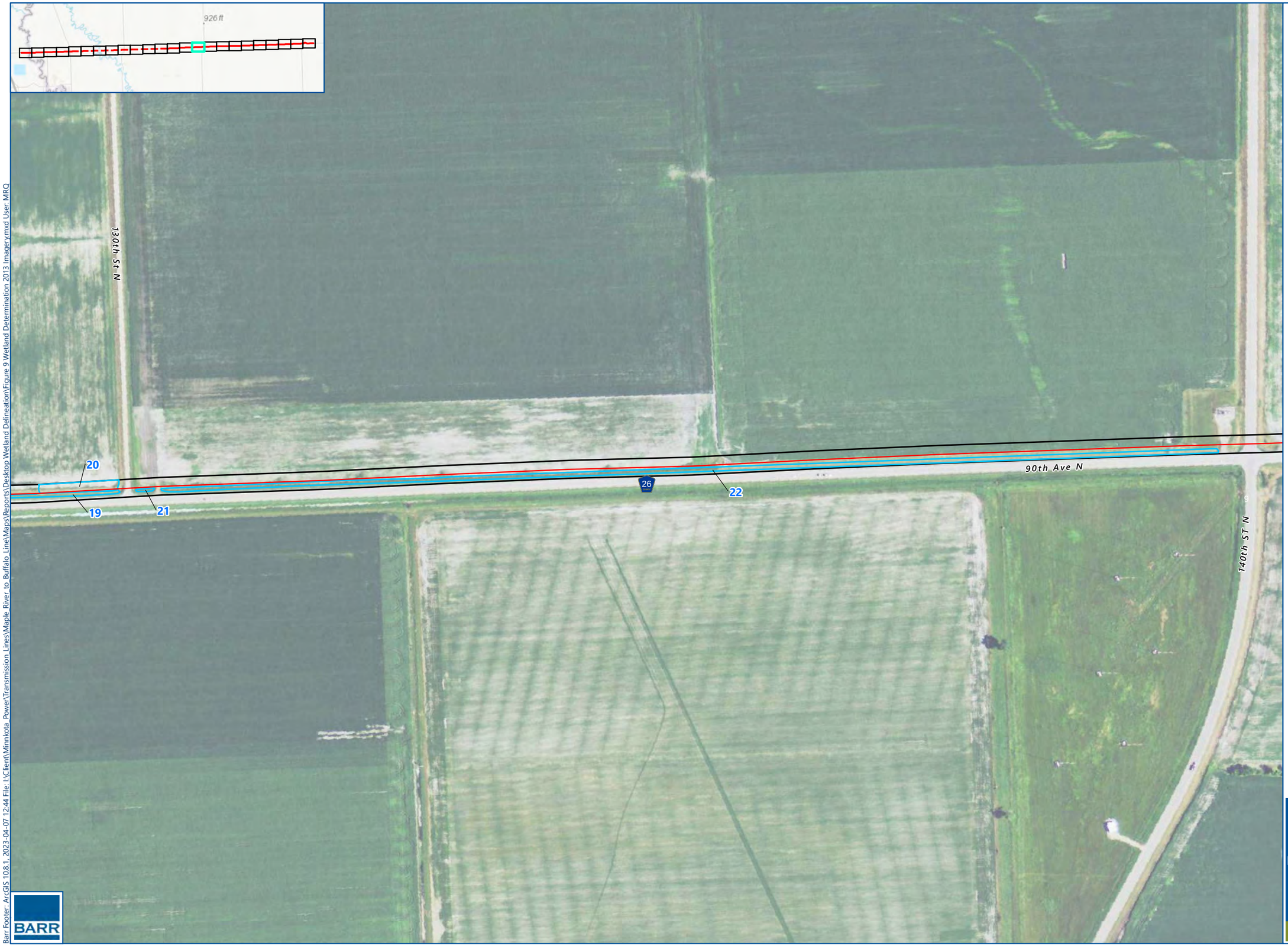
OFF-SITE WETLAND DETERMINATION 2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-14

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-15

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-16

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-17

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-18

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-19

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-20

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

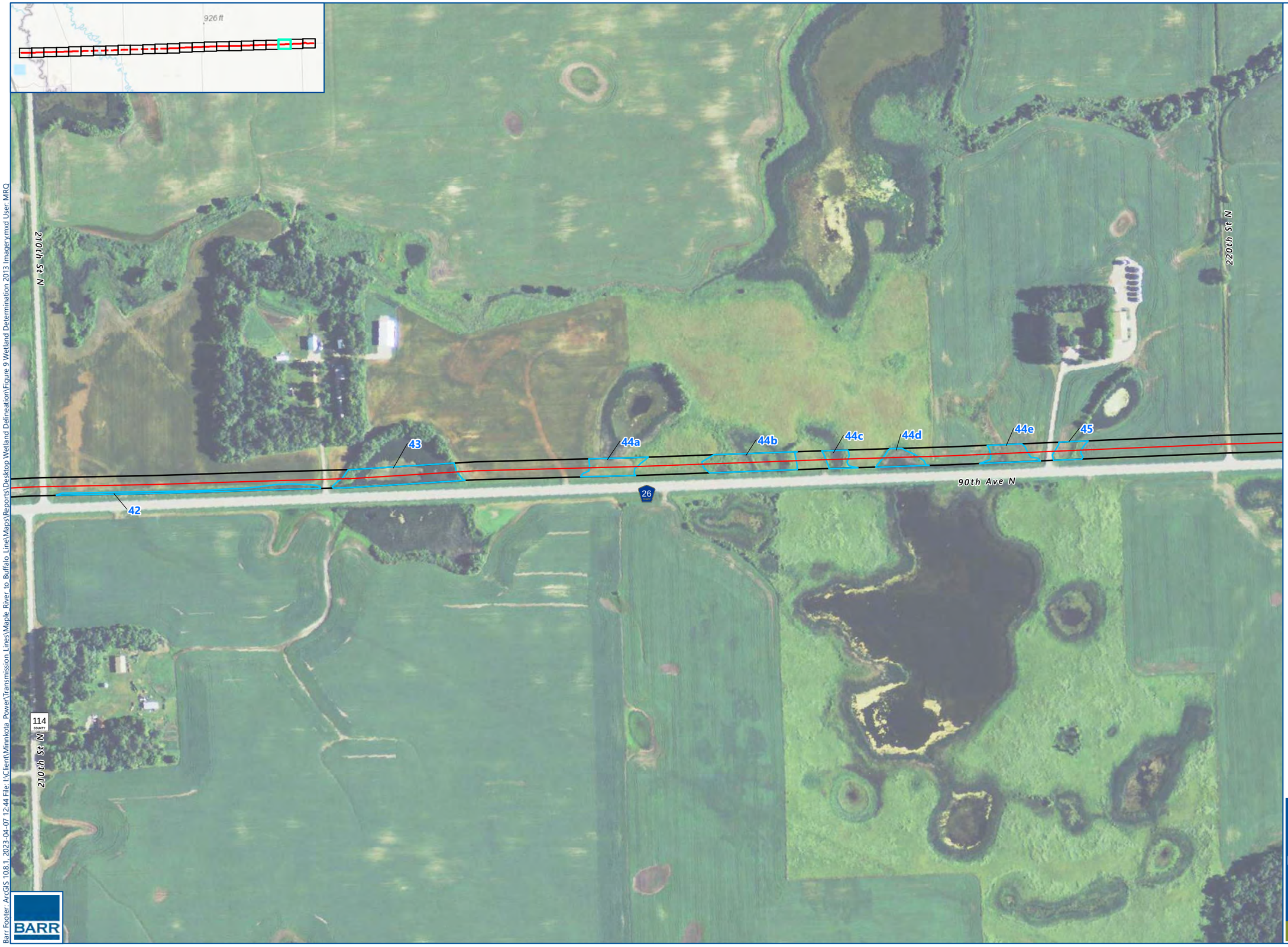
OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-21

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-22

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

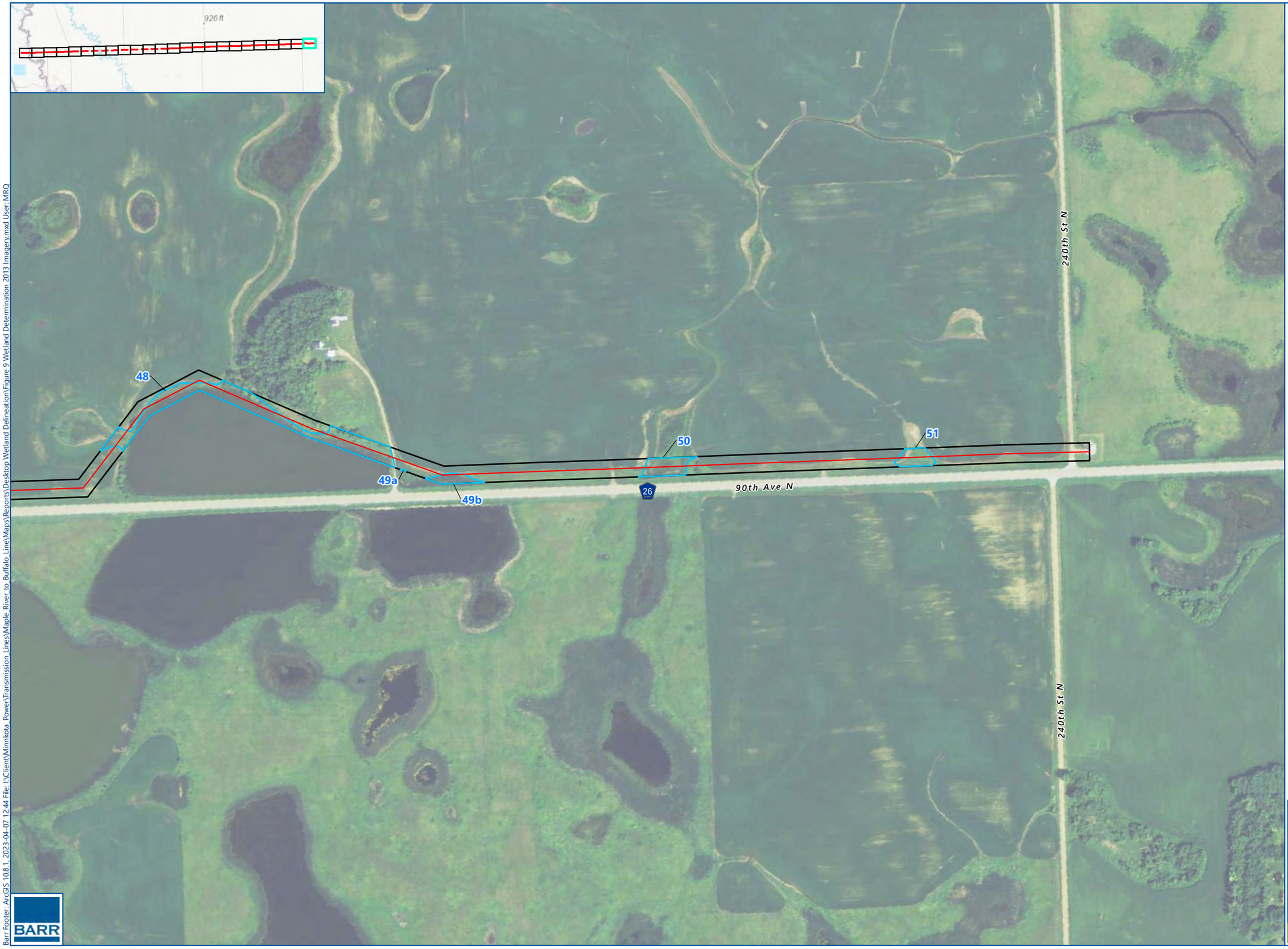
OFF-SITE WETLAND DETERMINATION
2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-23

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2013 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 9-24

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:44 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 9 Wetland Determination 2013 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-1

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-2

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-3

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

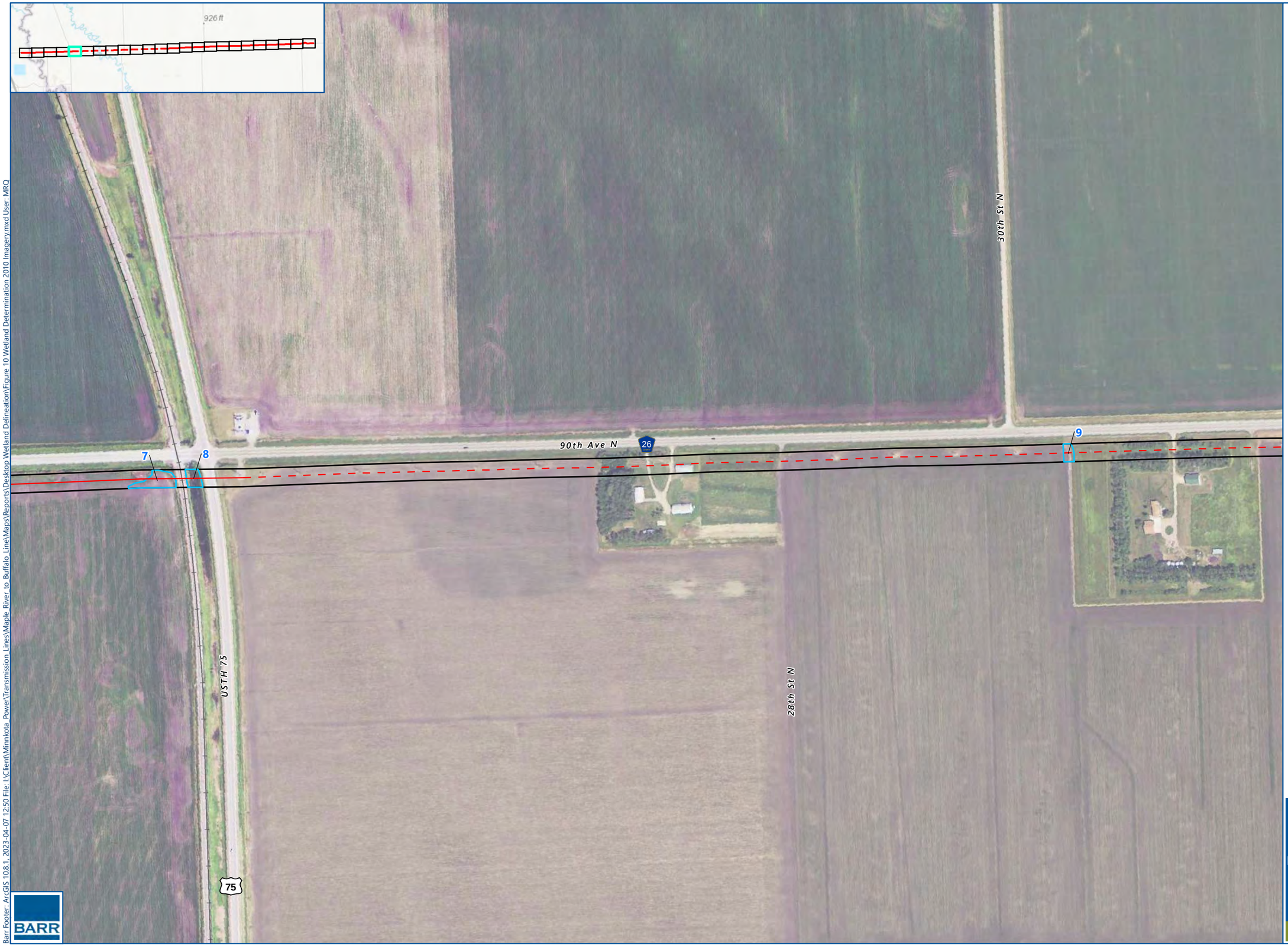
OFF-SITE WETLAND DETERMINATION
2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-4

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-5

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-6

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-7

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-8

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-9

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-10

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-11

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-12

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-13

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-14

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-15

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-16

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-17

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-18

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

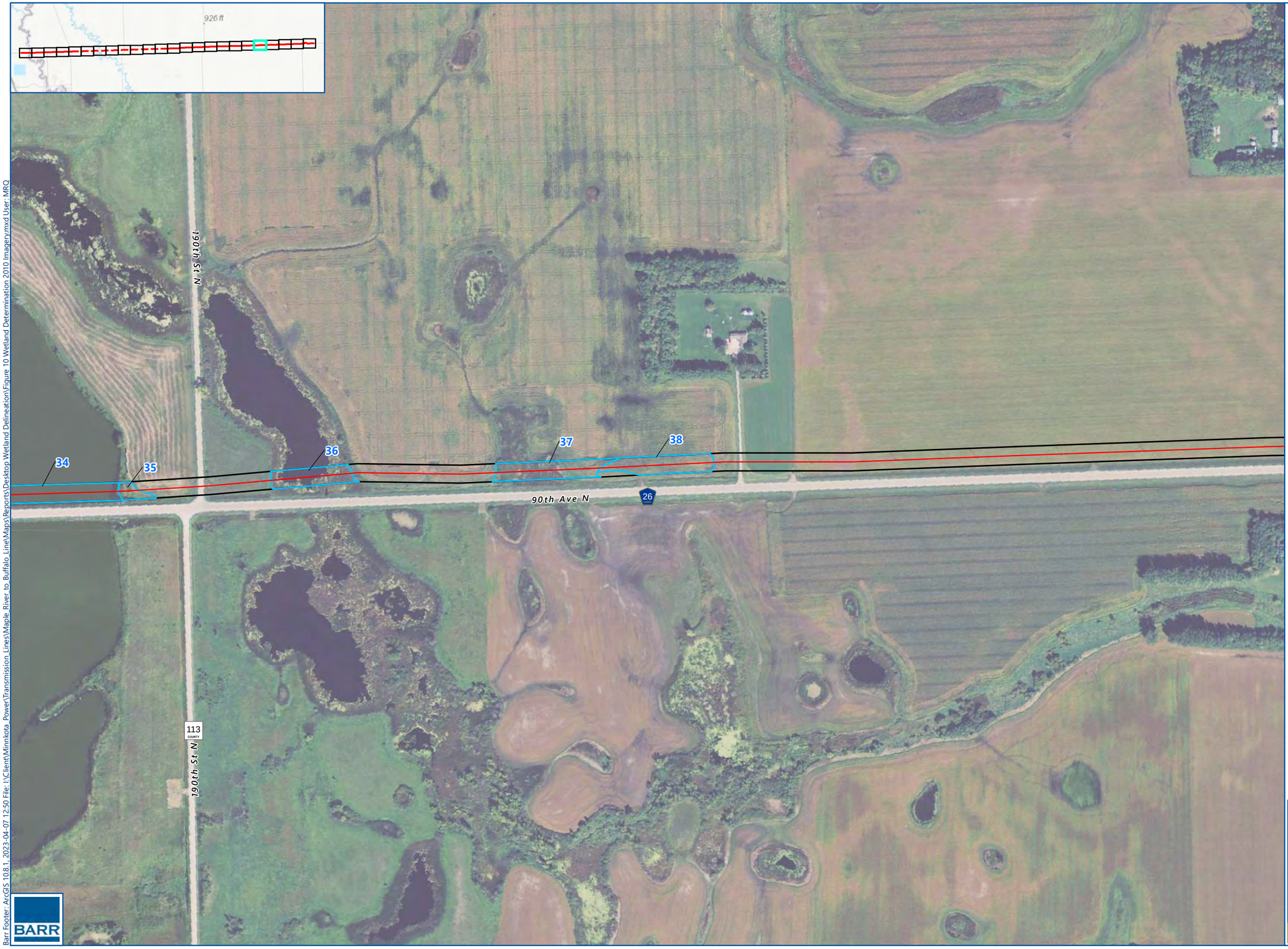
OFF-SITE WETLAND DETERMINATION 2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-19

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-20

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

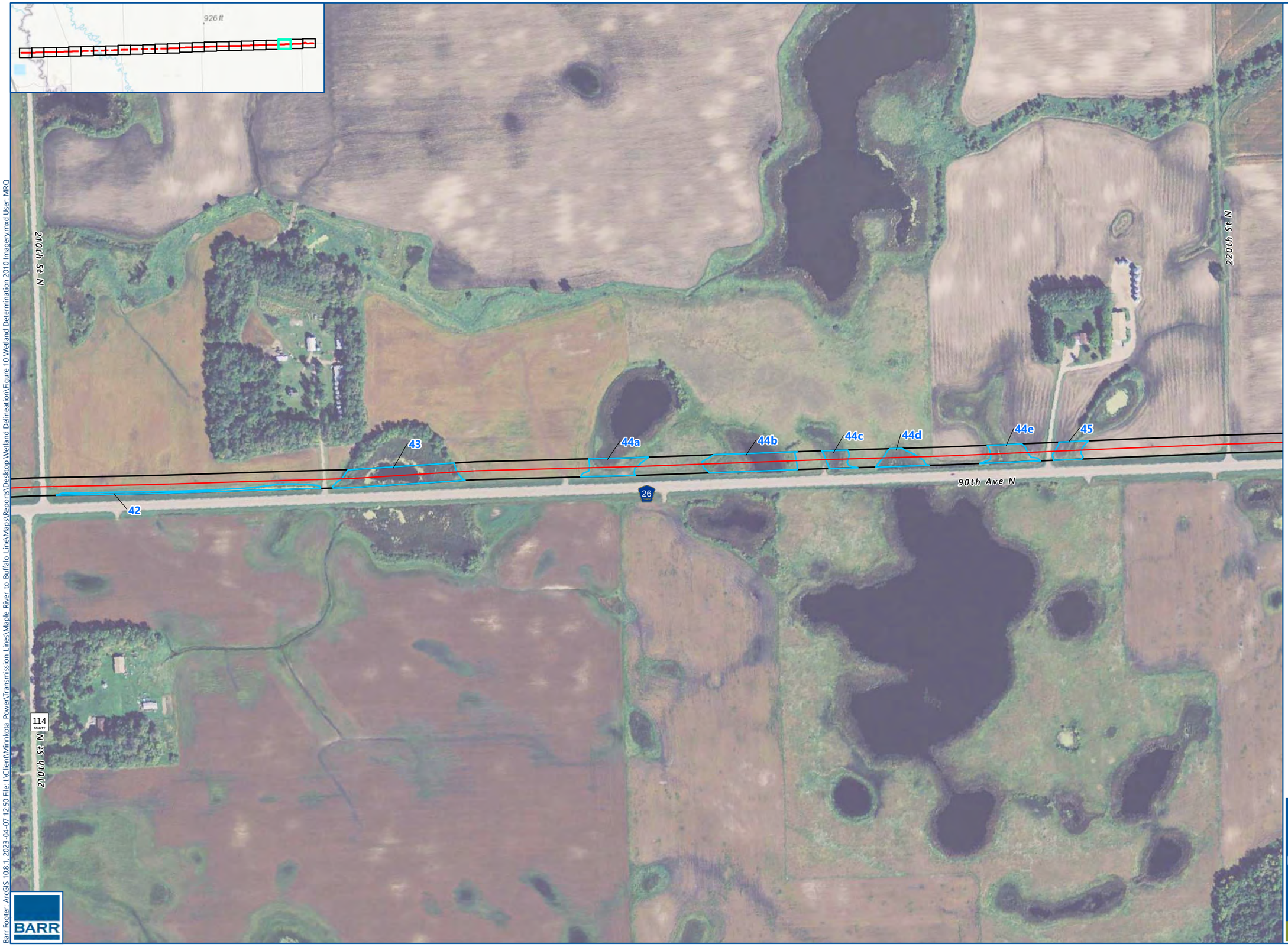
OFF-SITE WETLAND DETERMINATION
2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-21

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:50 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 10 Wetland Determination 2010 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-22

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-23

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2010 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 10-24

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2009 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-1

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-2

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-3

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-4

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-5

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-6

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

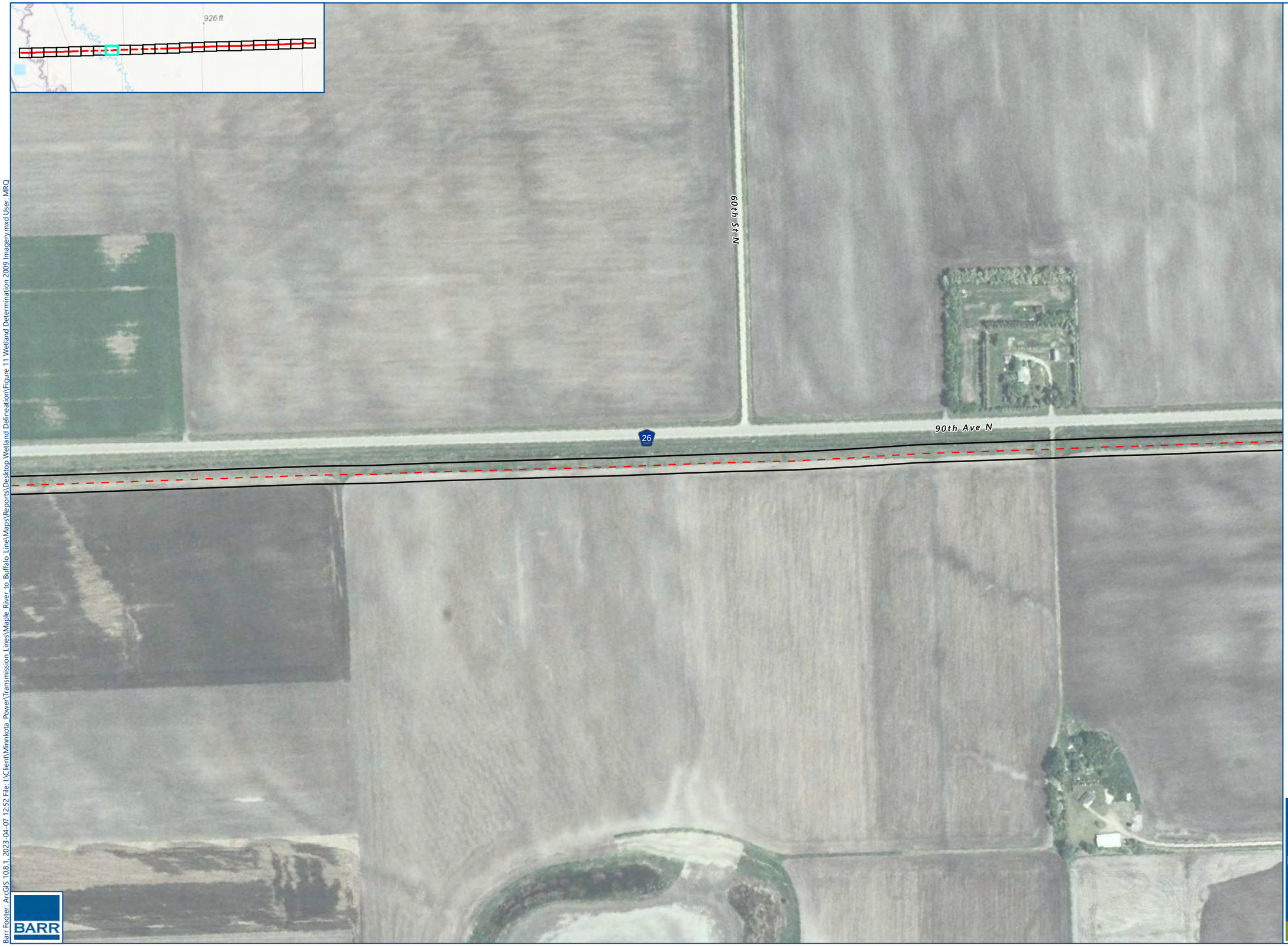
OFF-SITE WETLAND DETERMINATION
2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-7

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-8

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-9

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-10

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2009 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-11

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-12

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

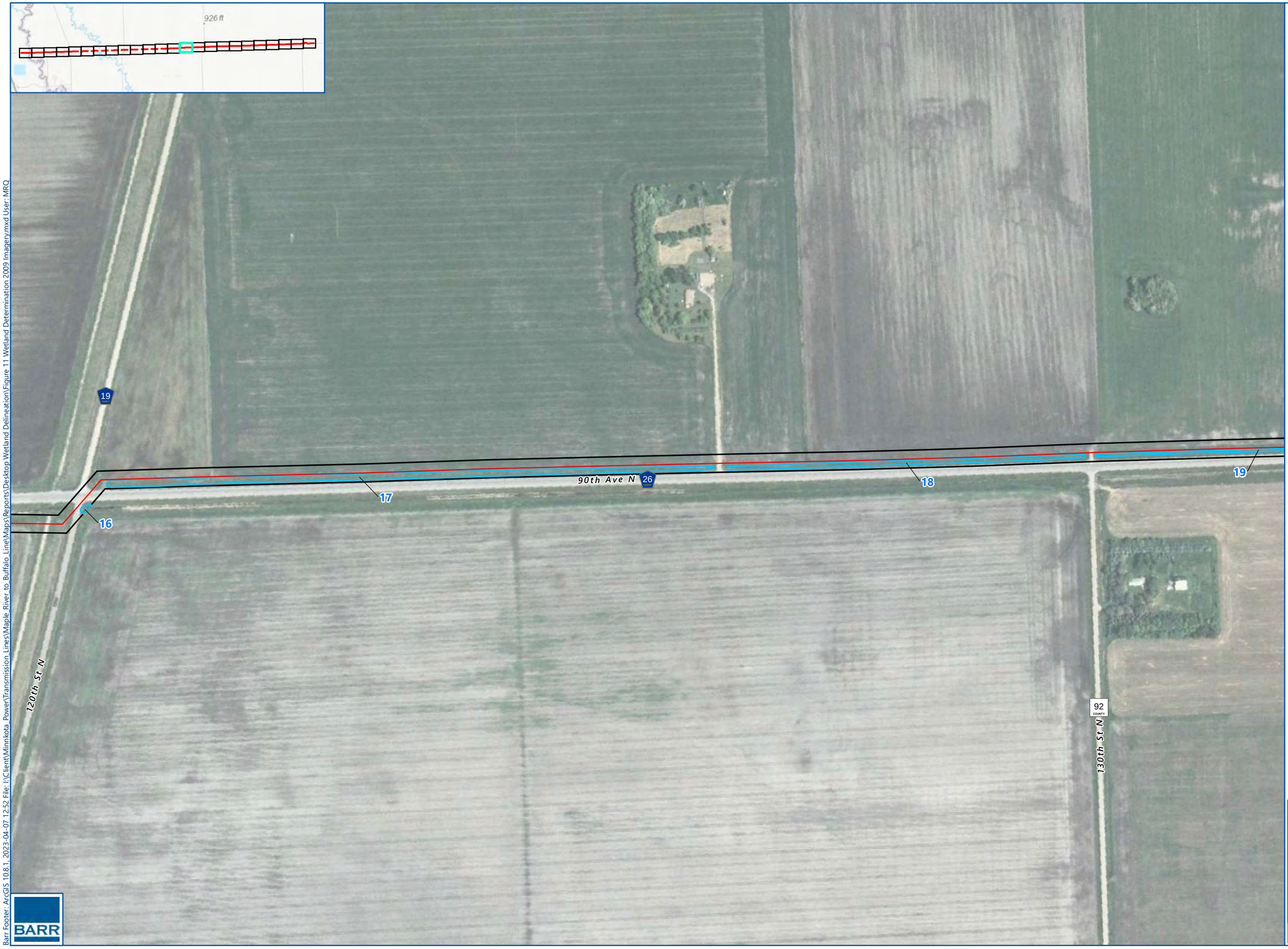
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OFF-SITE WETLAND DETERMINATION
2009 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-13

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-14

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-15

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2009 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-16

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

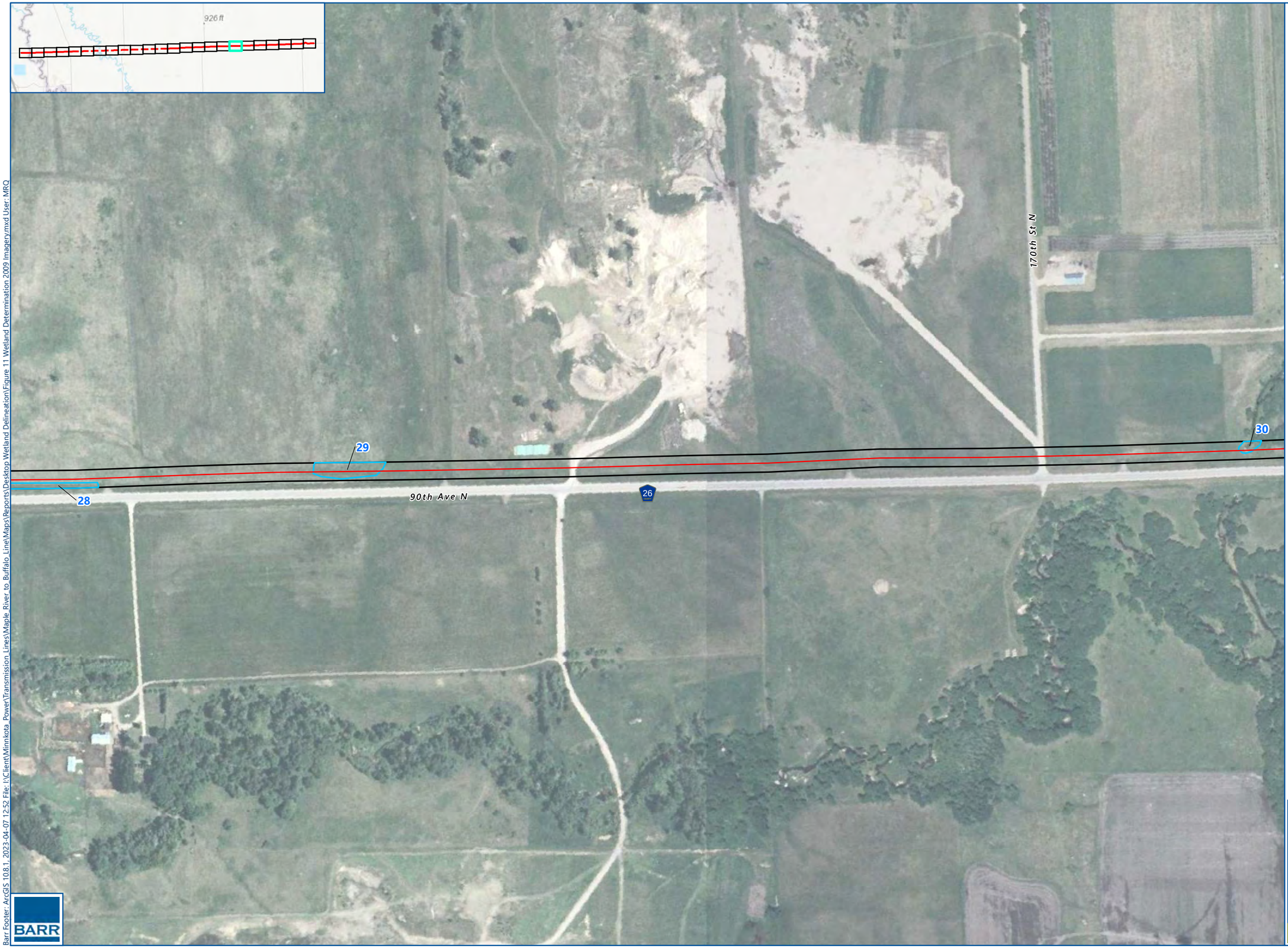
OFF-SITE WETLAND DETERMINATION
2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-17

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2009 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-18

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: i:\Client\Minnkota_Power\Transmission Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

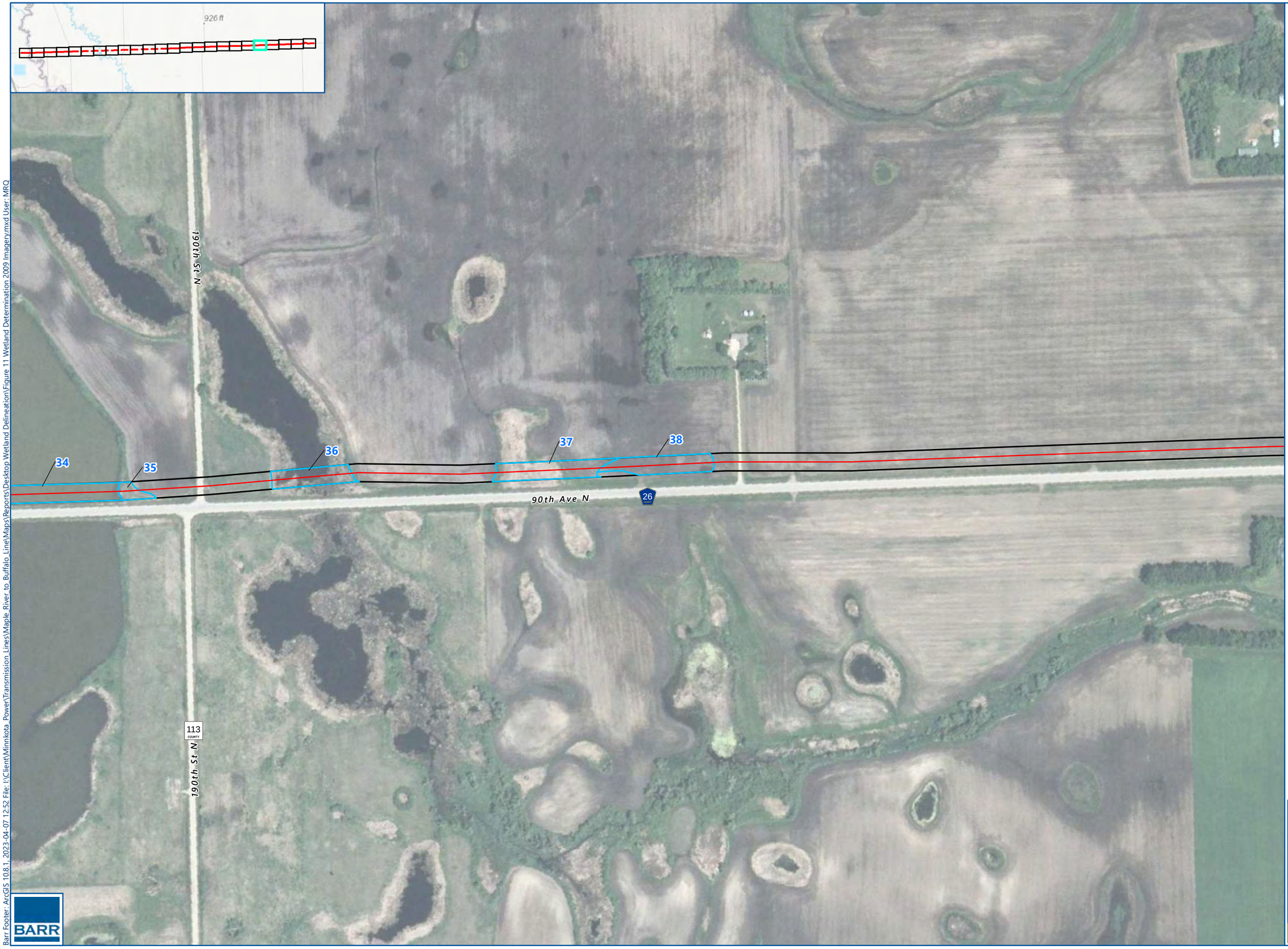
OFF-SITE WETLAND DETERMINATION 2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-19

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-20

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

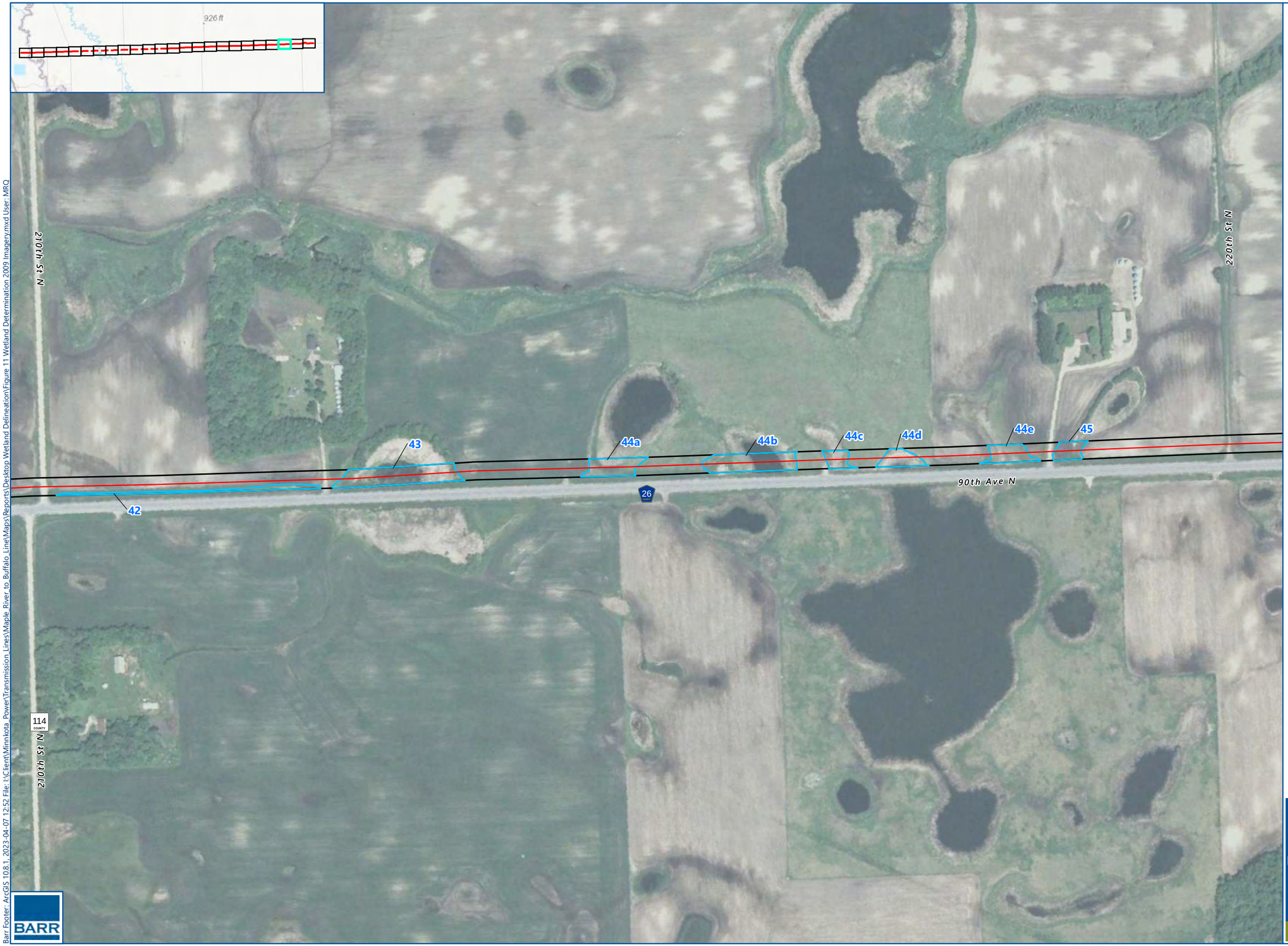
Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2009 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-21

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-22

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

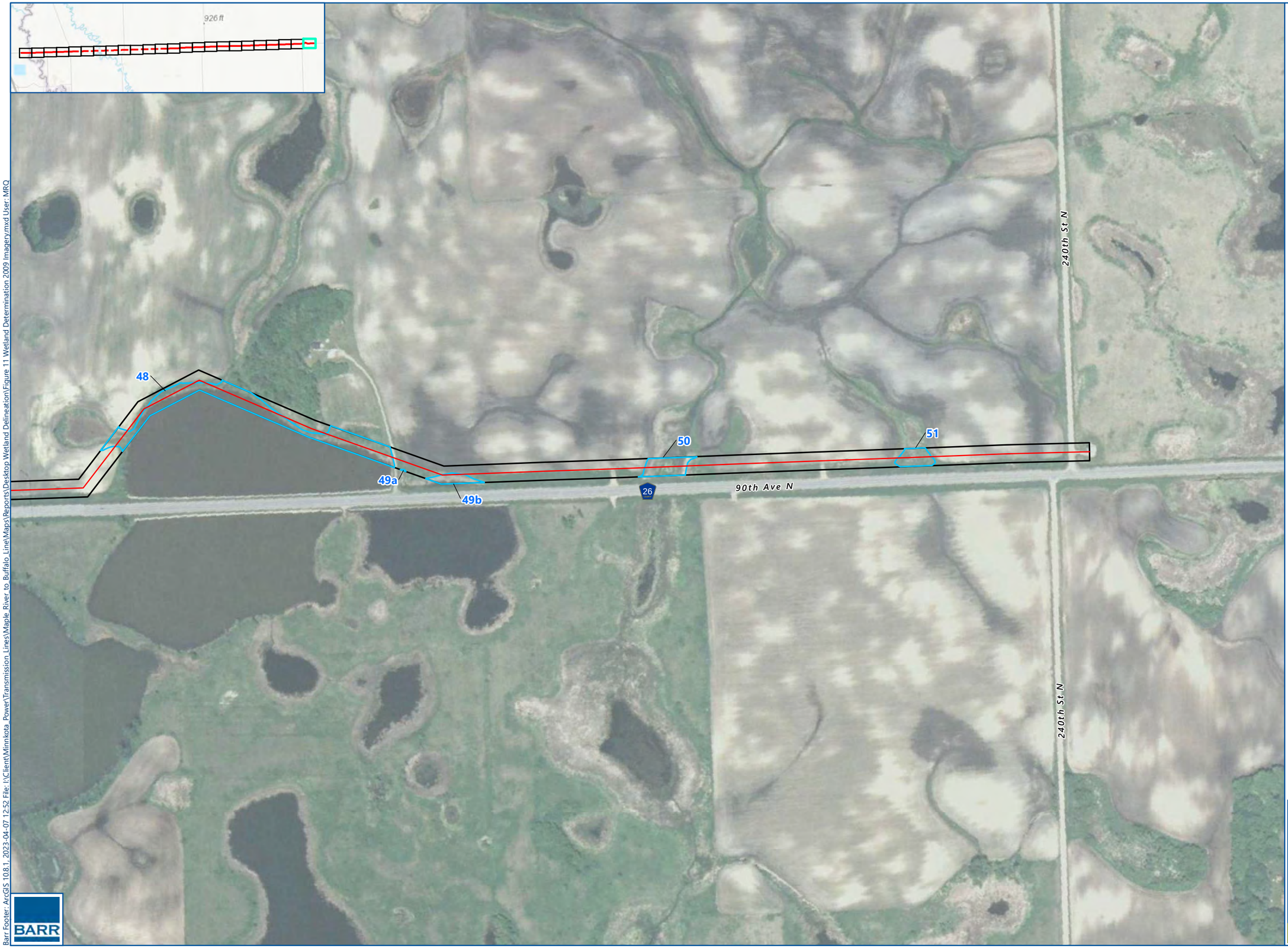
OFF-SITE WETLAND DETERMINATION 2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-23

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: i:\Client\Minnkota_Power\Transmission Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2009 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 11-24

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:52 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 11 Wetland Determination 2009 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2008 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-1

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-2

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-3

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-4

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-5

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2008 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-6

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-7

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2008 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-8

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-9

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

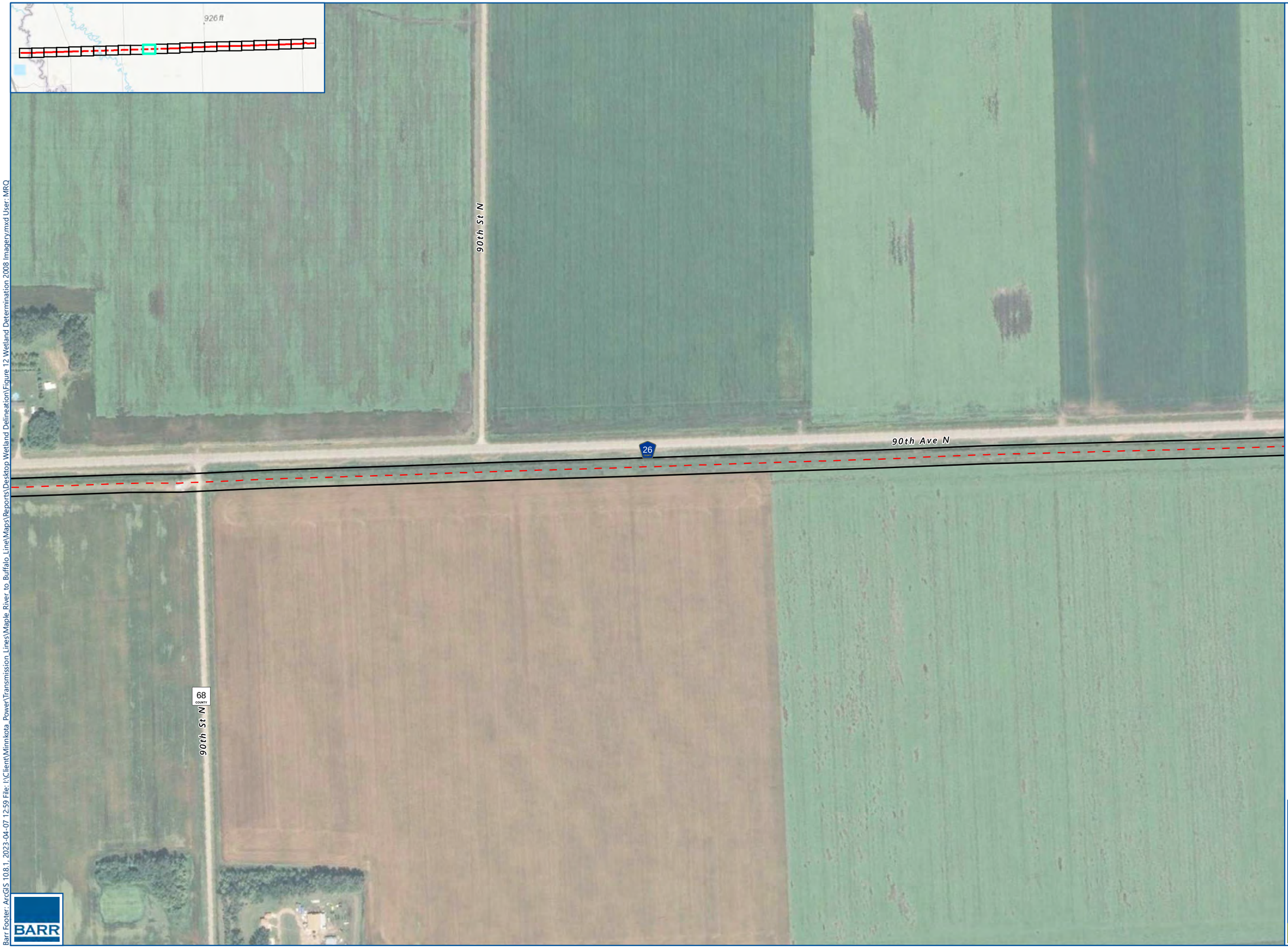
OFF-SITE WETLAND DETERMINATION 2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-10

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

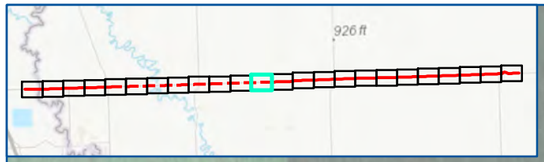
Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2008 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-11

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



100th St N

90th Ave N

26

100th St N

County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way
(80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2008 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-12

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-13

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-14

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-15

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-16

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-17

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-18

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-19

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

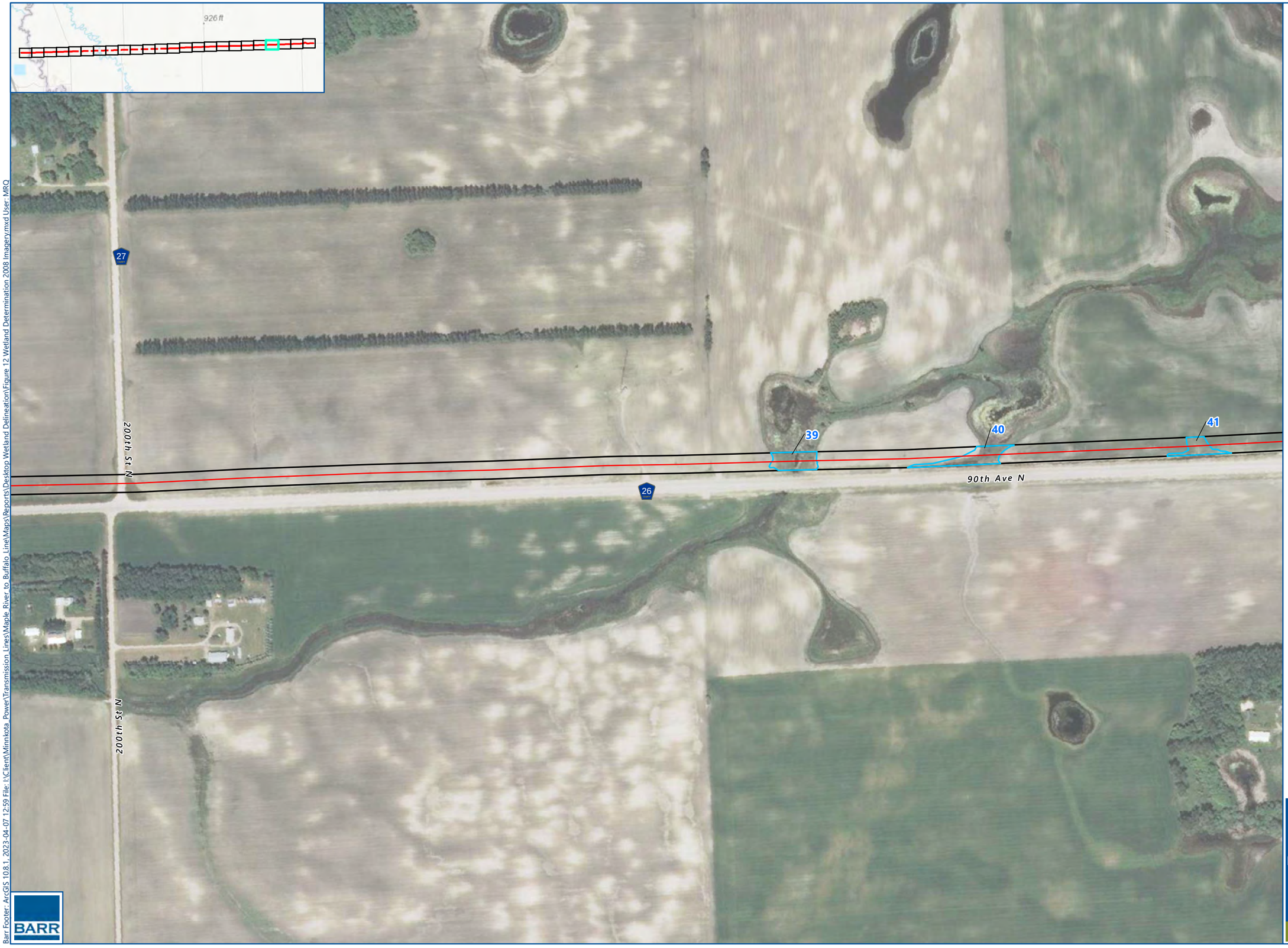
OFF-SITE WETLAND DETERMINATION
2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-20

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-21

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-22

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-23

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ



Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:59 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 12 Wetland Determination 2008 Imagery.mxd User: MRQ

County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2008 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 12-24



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2003 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-1

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-2

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-3

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

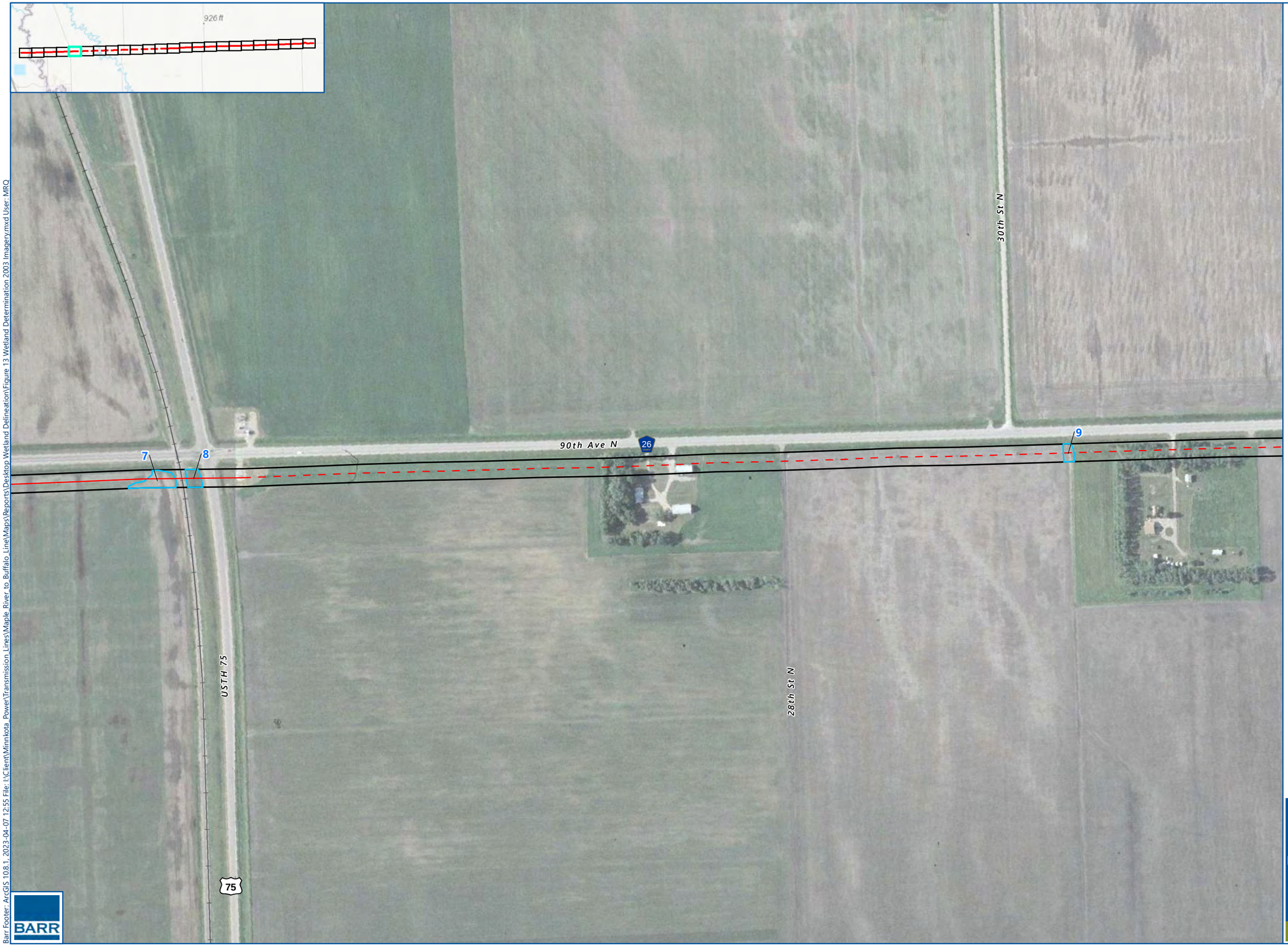
OFF-SITE WETLAND DETERMINATION
2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-4

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2003 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-5

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-6

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-7

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2003 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-8

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2003 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-9

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-10

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop\Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2003 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-11

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2003 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-12

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

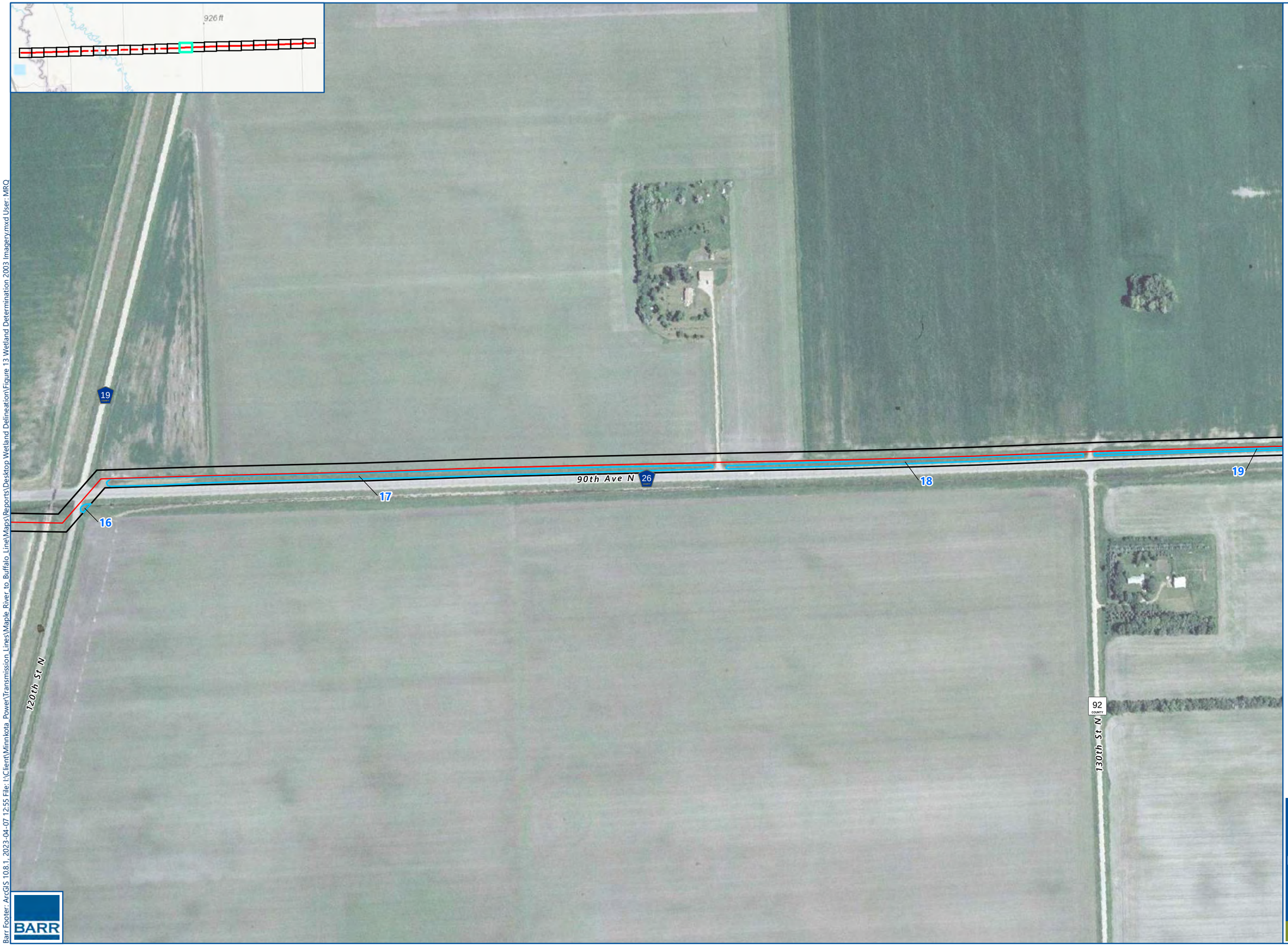
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OFF-SITE WETLAND DETERMINATION
2003 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-13

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Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

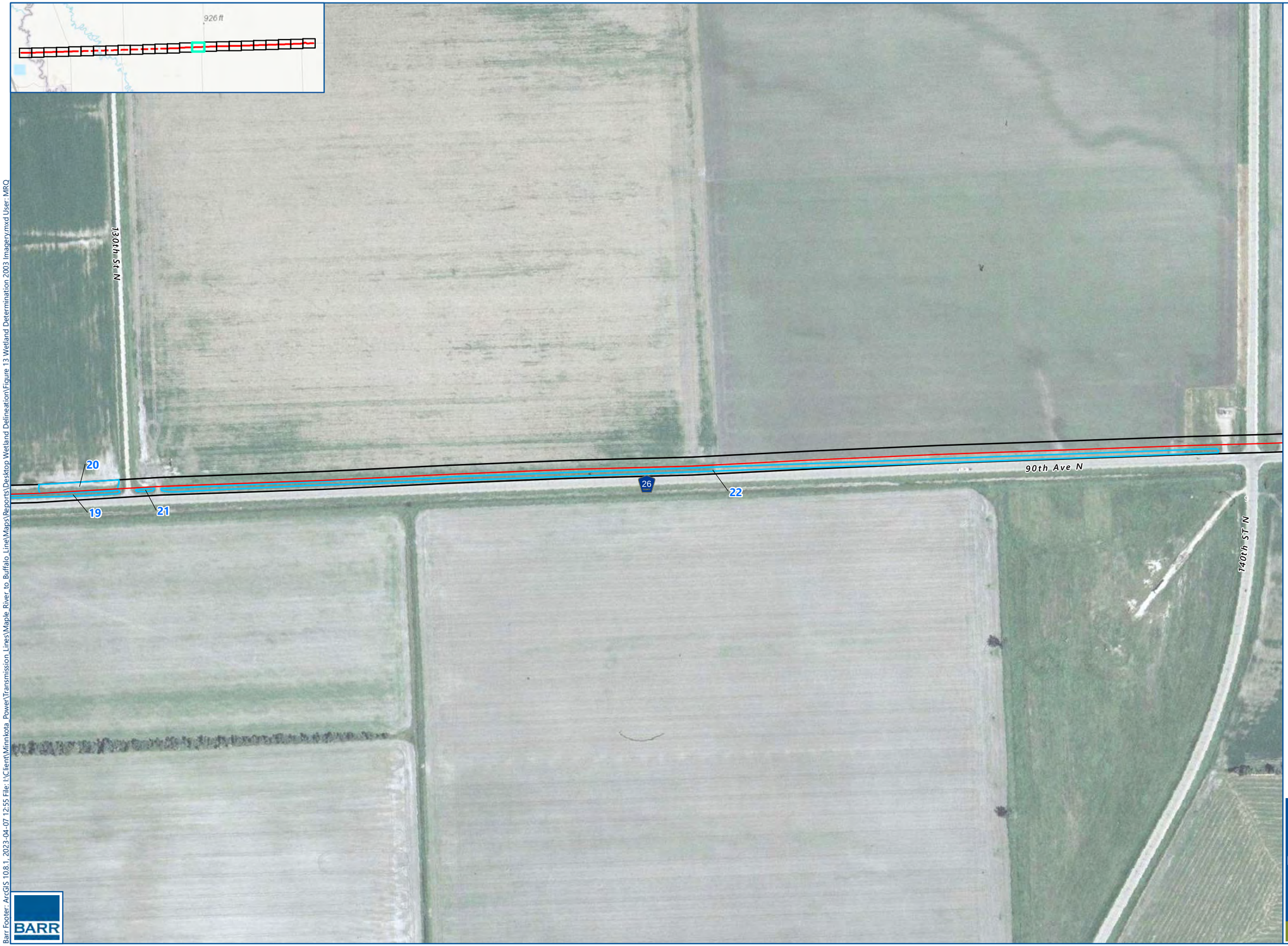
OFF-SITE WETLAND DETERMINATION
2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-14

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-15

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2003 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-16

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-17

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-18

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-19

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

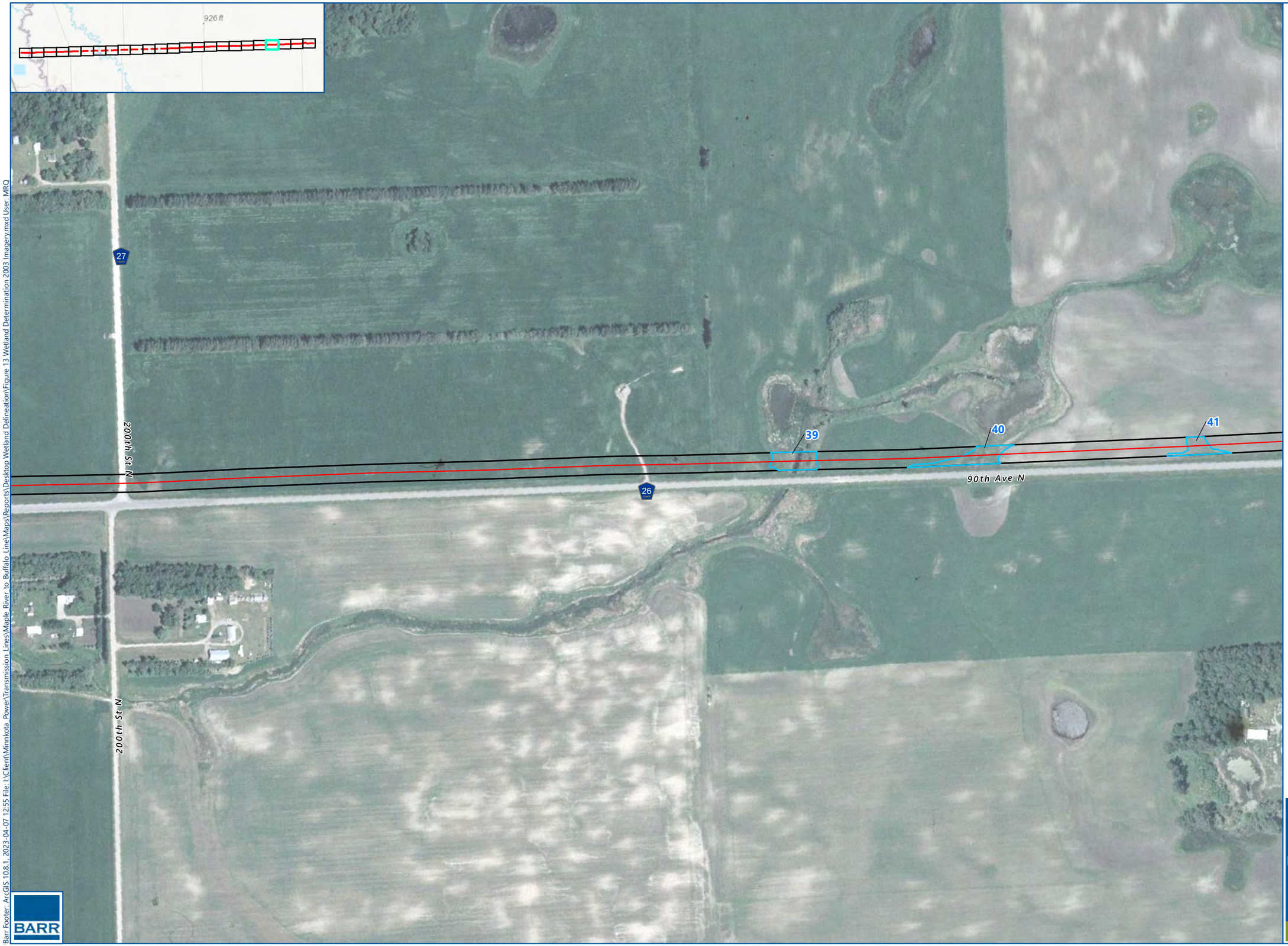
OFF-SITE WETLAND DETERMINATION
2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-20

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

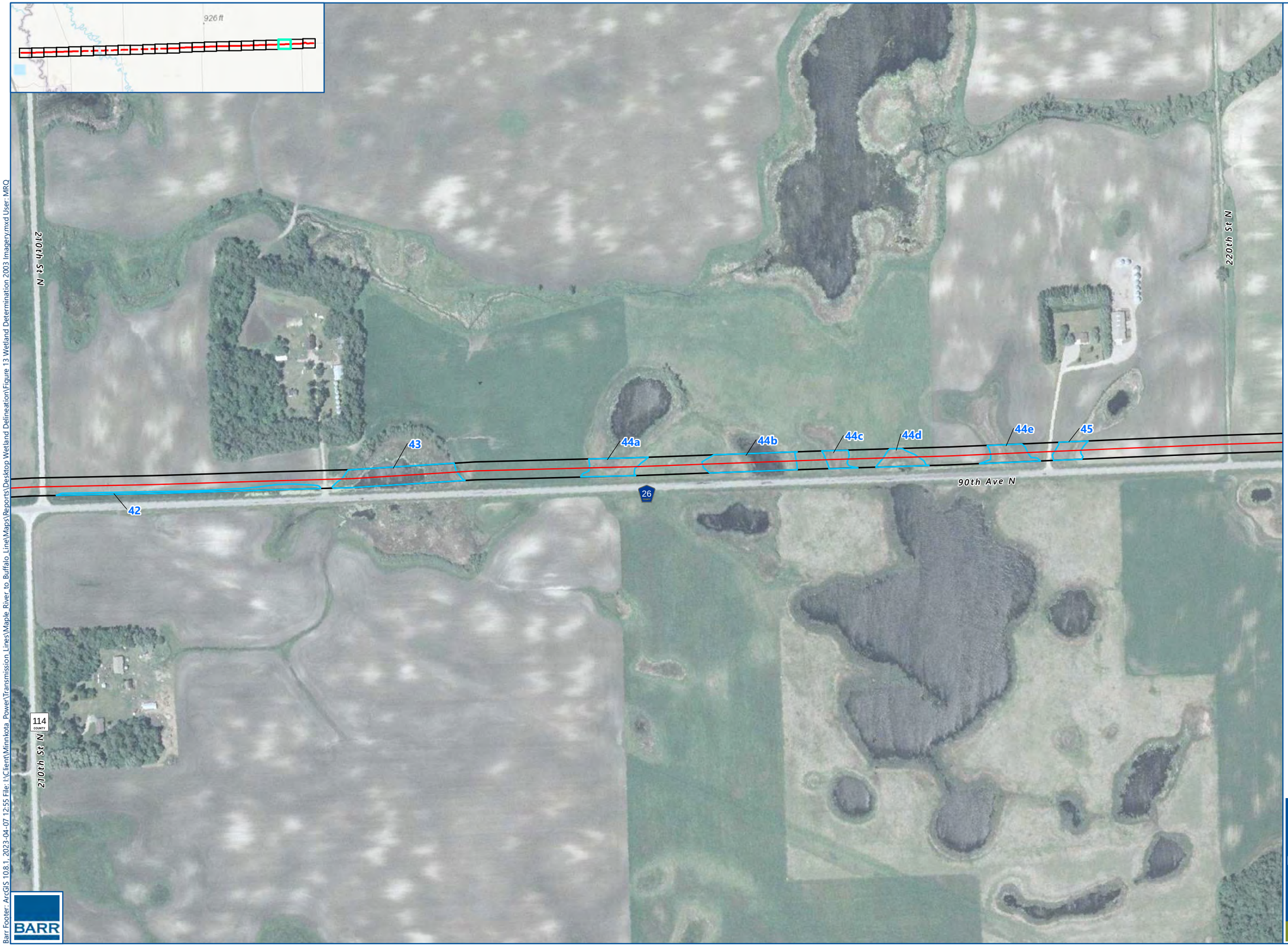
OFF-SITE WETLAND DETERMINATION 2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-21

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-22

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:55 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 13 Wetland Determination 2003 Imagery.mxd User: MRQ



County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

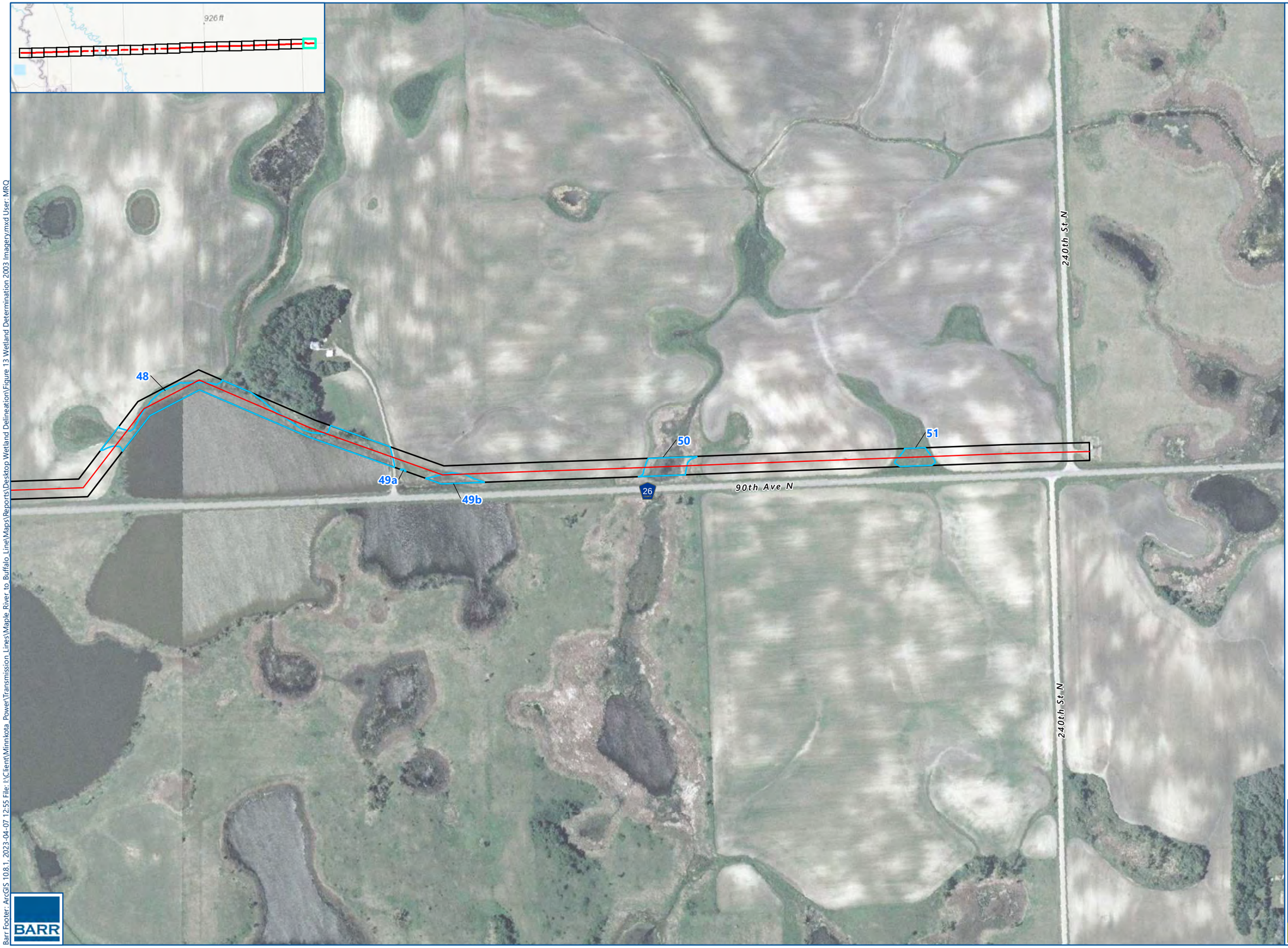
Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION
2003 IMAGERY
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-23

BARR

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County Boundary

Potential Wetland

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

N

0 200 400

Feet

Imagery: USDA FSA NAIP

OFF-SITE WETLAND DETERMINATION 2003 IMAGERY

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 13-24

BARR

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County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-1

BARR

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County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-2

BARR

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County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-3

BARR

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County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

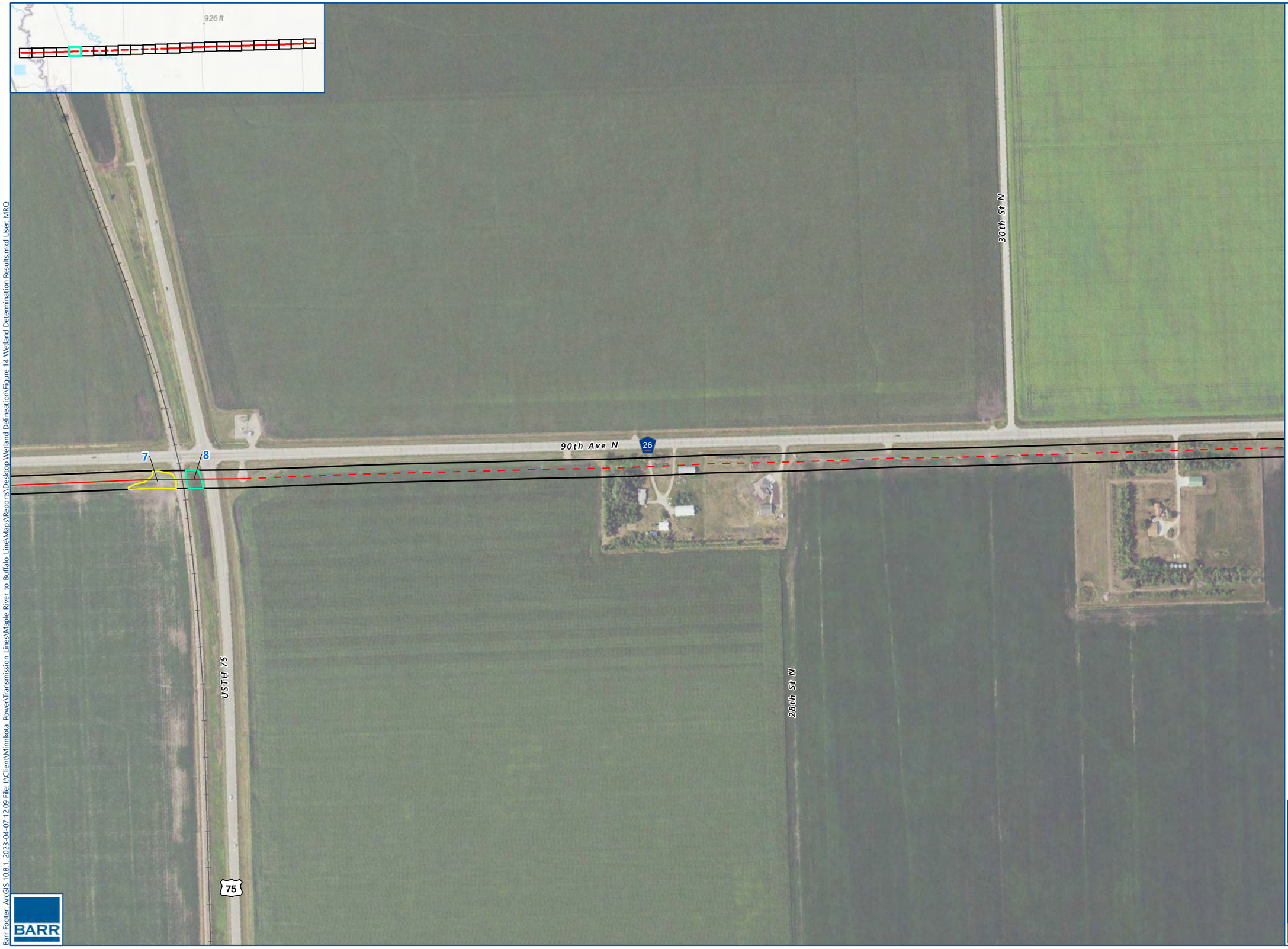
OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-4

BARR

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County Boundary

Floodplain forest

Riverine

Seasonally flooded basin

Shallow marsh

Shallow, open water

Shrub swamp

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-5

BARR

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County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-6

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County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-7

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-8

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-9

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

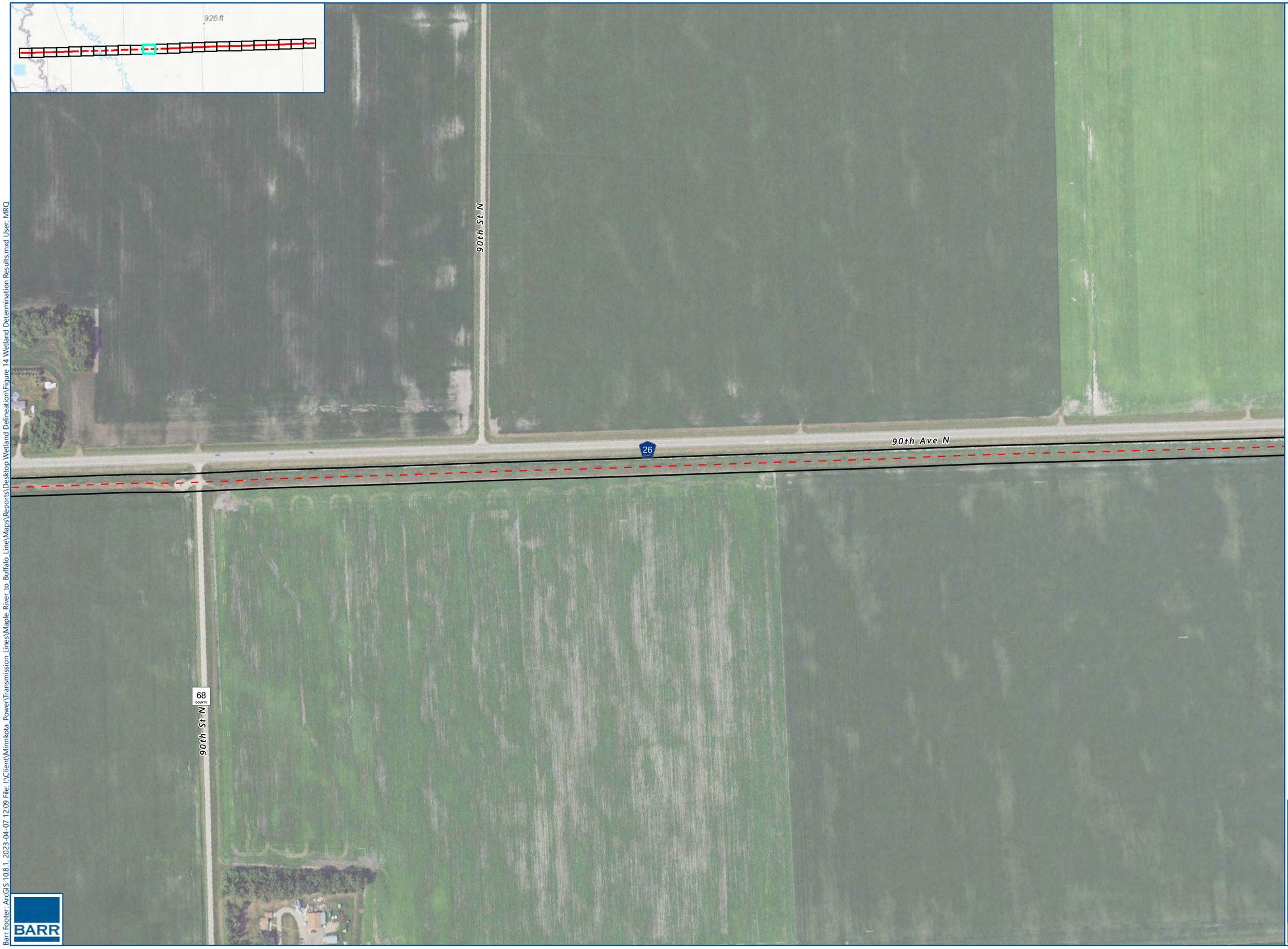
OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-10

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-11

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-12

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary

Floodplain forest

Riverine

Seasonally flooded basin

Shallow marsh

Shallow, open water

Shrub swamp

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-13

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary

Floodplain forest

Riverine

Seasonally flooded basin

Shallow marsh

Shallow, open water

Shrub swamp

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-14

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-15

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-16

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-17

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-18

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-19

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS
Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-20

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary

Floodplain forest

Riverine

Seasonally flooded basin

Shallow marsh

Shallow, open water

Shrub swamp

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-21

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-22

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: i:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



County Boundary
Floodplain forest
Riverine
Seasonally flooded basin
Shallow marsh
Shallow, open water
Shrub swamp

Proposed Project Features

Alignment
Underbuild Alignment
Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400
Feet

Imagery: USDA FSA NAIP (2021)

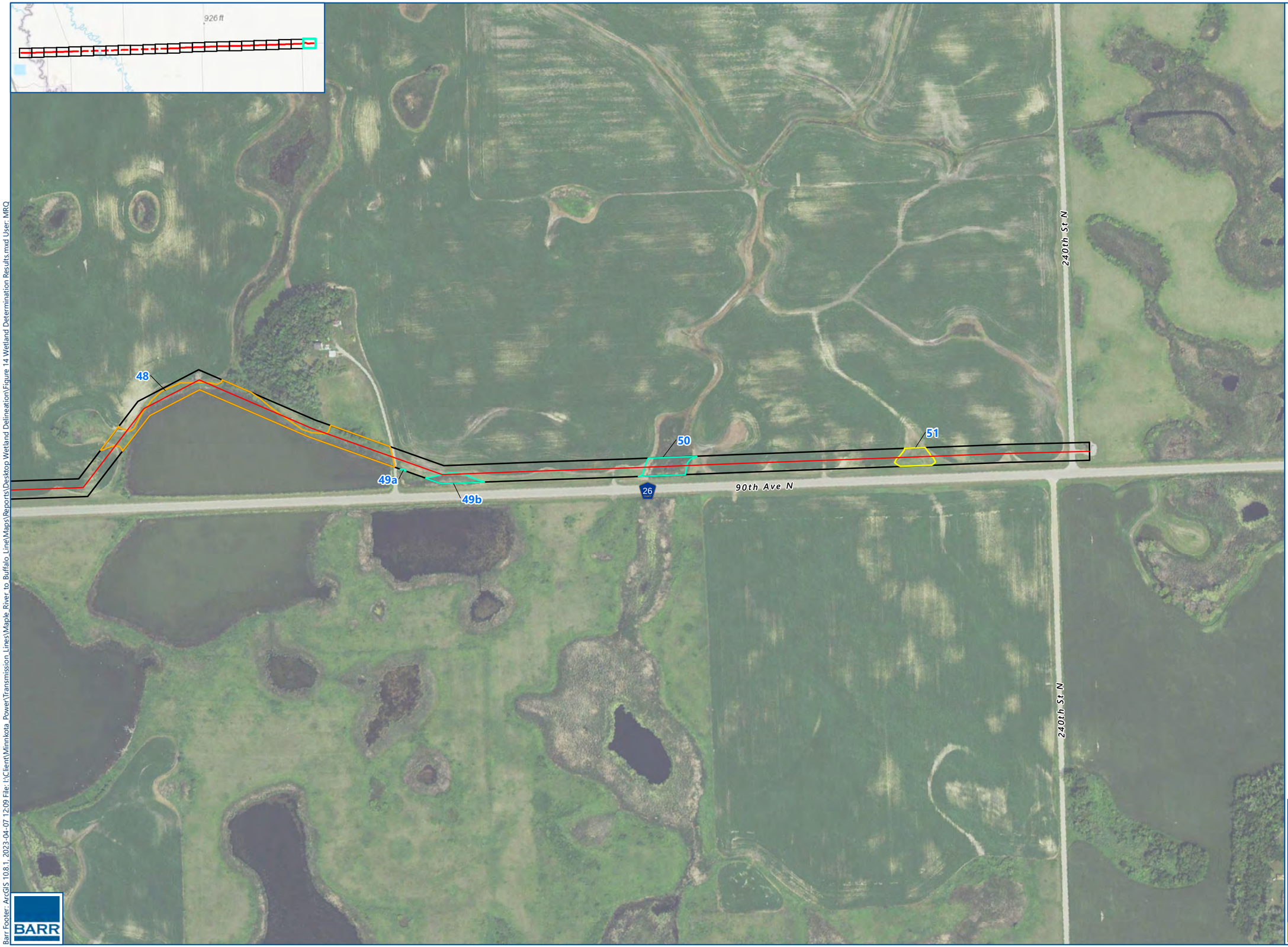
OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-23

BARR

Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ



Barr Footer: ArcGIS 10.8.1, 2023-04-07 12:09 File: I:\Client\Minnkota_Power\Transmission_Lines\Maple_River_to_Buffalo_Line\Maps\Reports\Desktop Wetland Delineation\Figure 14 Wetland Determination Results.mxd User: MRQ

County Boundary

Floodplain forest

Riverine

Seasonally flooded basin

Shallow marsh

Shallow, open water

Shrub swamp

Proposed Project Features

Alignment

Underbuild Alignment

Right-of-Way (80' Wide)

Numbered areas that were evaluated but determined not to be wetland are not shown on Figure 14.

N

0 200 400

Feet

Imagery: USDA FSA NAIP (2021)

OFF-SITE WETLAND DETERMINATION RESULTS

Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild
Cass County, ND and
Clay County, MN

FIGURE 14-24

BARR

Appendix A

Antecedent Precipitation Calculations

Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

Precipitation Worksheet Using Gridded Database

Precipitation data for target wetland location:

county: **Clay** township number: **141N**
township name: **Morken** range number: **47W**
nearest community: **Averill** section number: **36**

Aerial photograph or site visit date:
Sunday, July 25, 2021

Score using 1991-2020 normal period

values are in inches A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.	first prior month: June 2021	second prior month: May 2021	third prior month: April 2021
estimated precipitation total for this location:	3.55	0.62	1.88
there is a 30% chance this location will have less than:	3.04	2.21	0.99
there is a 30% chance this location will have more than:	5.55	3.17	2.06
type of month: dry normal wet	normal	dry	normal
monthly score	3 * 2 = 6	2 * 1 = 2	1 * 2 = 2
multi-month score: 6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)	10 (Normal)		

Other Resources:

- retrieve daily precipitation data
- view radar-based precipitation estimates
- view weekly precipitation maps
- *Evaluating Antecedent Precipitation Conditions* (BWSR)

Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

Precipitation Worksheet Using Gridded Database

Precipitation data for target wetland location:

county: **Clay** township number: **141N**
township name: **Morken** range number: **47W**
nearest community: **Averill** section number: **36**

Aerial photograph or site visit date:
Saturday, August 10, 2019

Score using 1991-2020 normal period

values are in inches A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.	first prior month: **July 2019**	second prior month: **June 2019**	third prior month: **May 2019**
estimated precipitation total for this location:	**5.52**	**3.53**	**2.51**
there is a 30% chance this location will have less than:	2.26	3.04	2.21
there is a 30% chance this location will have more than:	4.14	5.55	3.17
type of month: dry normal wet	**wet**	**normal**	**normal**
monthly score	**3 * 3 = 9**	**2 * 2 = 4**	**1 * 2 = 2**
multi-month score: 6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)	**15 (Wet)**		

Other Resources:

- retrieve daily precipitation data
- view radar-based precipitation estimates
- view weekly precipitation maps
- *Evaluating Antecedent Precipitation Conditions* (BWSR)

Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

Precipitation Worksheet Using Gridded Database

Precipitation data for target wetland location:

county: **Clay** township number: **141N**
township name: **Morken** range number: **47W**
nearest community: **Averill** section number: **36**

Aerial photograph or site visit date:
Tuesday, August 1, 2017

Score using 1991-2020 normal period

values are in inches A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.	first prior month: **July 2017**	second prior month: **June 2017**	third prior month: **May 2017**
estimated precipitation total for this location:	**1.28**	**2.36**	**1.68**
there is a 30% chance this location will have less than:	2.26	3.04	2.21
there is a 30% chance this location will have more than:	4.14	5.55	3.17
type of month: dry normal wet	**dry**	**dry**	**dry**
monthly score	**3 * 1 = 3**	**2 * 1 = 2**	**1 * 1 = 1**
multi-month score: 6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)	**6 (Dry)**		

Other Resources:

- retrieve daily precipitation data
- view radar-based precipitation estimates
- view weekly precipitation maps
- *Evaluating Antecedent Precipitation Conditions* (BWSR)

Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

Precipitation Worksheet Using Gridded Database

Precipitation data for target wetland location:

county: **Clay** township number: **141N**
township name: **Morken** range number: **47W**
nearest community: **Averill** section number: **36**

Aerial photograph or site visit date:
Saturday, September 12, 2015

Score using 1991-2020 normal period

values are in inches A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.	first prior month: **August 2015**	second prior month: **July 2015**	third prior month: **June 2015**
estimated precipitation total for this location:	**2.02**	**4.20**	**3.82**
there is a 30% chance this location will have less than:	2.08	2.26	3.04
there is a 30% chance this location will have more than:	3.33	4.14	5.55
type of month: dry normal wet	**dry**	**wet**	**normal**
monthly score	**3 * 1 = 3**	**2 * 3 = 6**	**1 * 2 = 2**
multi-month score: 6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)	**11 (Normal)**		

Other Resources:

- retrieve daily precipitation data
- view radar-based precipitation estimates
- view weekly precipitation maps
- *Evaluating Antecedent Precipitation Conditions* (BWSR)

Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

Precipitation Worksheet Using Gridded Database

Precipitation data for target wetland location:

county: **Clay** township number: **141N**
township name: **Morken** range number: **47W**
nearest community: **Averill** section number: **36**

Aerial photograph or site visit date:
Saturday, July 27, 2013

Score using 1991-2020 normal period

values are in inches A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.	first prior month: June 2013	second prior month: May 2013	third prior month: April 2013
estimated precipitation total for this location:	5.13	3.95	2.03
there is a 30% chance this location will have less than:	3.04	2.21	0.99
there is a 30% chance this location will have more than:	5.55	3.17	2.06
type of month: dry normal wet	normal	wet	normal
monthly score	3 * 2 = 6	2 * 3 = 6	1 * 2 = 2
multi-month score: 6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)	14 (Normal)		

Other Resources:

- retrieve daily precipitation data
- view radar-based precipitation estimates
- view weekly precipitation maps
- *Evaluating Antecedent Precipitation Conditions* (BWSR)

Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

Precipitation Worksheet Using Gridded Database

Precipitation data for target wetland location:

county: **Clay** township number: **141N**
township name: **Morken** range number: **47W**
nearest community: **Averill** section number: **36**

Aerial photograph or site visit date:
Sunday, August 15, 2010

Score using 1991-2020 normal period

values are in inches A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.	first prior month: **July 2010**	second prior month: **June 2010**	third prior month: **May 2010**
estimated precipitation total for this location:	**5.76**	**4.09**	**2.86**
there is a 30% chance this location will have less than:	2.26	3.04	2.21
there is a 30% chance this location will have more than:	4.14	5.55	3.17
type of month: dry normal wet	**wet**	**normal**	**normal**
monthly score	**3 * 3 = 9**	**2 * 2 = 4**	**1 * 2 = 2**
multi-month score: 6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)	**15 (Wet)**		

Other Resources:

- retrieve daily precipitation data
- view radar-based precipitation estimates
- view weekly precipitation maps
- *Evaluating Antecedent Precipitation Conditions* (BWSR)

Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

Precipitation Worksheet Using Gridded Database

Precipitation data for target wetland location:

county: **Clay** township number: **141N**
township name: **Morken** range number: **47W**
nearest community: **Averill** section number: **36**

Aerial photograph or site visit date:
Monday, June 15, 2009

Score using 1991-2020 normal period

values are in inches A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.	first prior month: **May 2009**	second prior month: **April 2009**	third prior month: **March 2009**
estimated precipitation total for this location:	**2.22**	**0.59**	**3.73**
there is a 30% chance this location will have less than:	2.21	0.99	0.78
there is a 30% chance this location will have more than:	3.17	2.06	1.44
type of month: dry normal wet	**normal**	**dry**	**wet**
monthly score	**3 * 2 = 6**	**2 * 1 = 2**	**1 * 3 = 3**
multi-month score: 6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)	**11 (Normal)**		

Other Resources:

- retrieve daily precipitation data
- view radar-based precipitation estimates
- view weekly precipitation maps
- *Evaluating Antecedent Precipitation Conditions* (BWSR)

Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

Precipitation Worksheet Using Gridded Database

Precipitation data for target wetland location:

county: **Clay** township number: **141N**
township name: **Morken** range number: **47W**
nearest community: **Averill** section number: **36**

Aerial photograph or site visit date:
Tuesday, July 29, 2008

Score using 1991-2020 normal period

values are in inches A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.	first prior month: **June 2008**	second prior month: **May 2008**	third prior month: **April 2008**
estimated precipitation total for this location:	**5.75**	**1.85**	**2.18**
there is a 30% chance this location will have less than:	3.04	2.21	0.99
there is a 30% chance this location will have more than:	5.55	3.17	2.06
type of month: dry normal wet	**wet**	**dry**	**wet**
monthly score	**3 * 3 = 9**	**2 * 1 = 2**	**1 * 3 = 3**
multi-month score: 6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)	**14 (Normal)**		

Other Resources:

- retrieve daily precipitation data
- view radar-based precipitation estimates
- view weekly precipitation maps
- *Evaluating Antecedent Precipitation Conditions* (BWSR)

Minnesota State Climatology Office

State Climatology Office - DNR Division of Ecological and Water Resources

Precipitation Worksheet Using Gridded Database

Precipitation data for target wetland location:

county: **Clay** township number: **141N**
township name: **Morken** range number: **47W**
nearest community: **Averill** section number: **36**

Aerial photograph or site visit date:
Friday, June 20, 2003

Score using 1991-2020 normal period

values are in inches A 'R' following a monthly total indicates a provisional value derived from radar-based estimates.	first prior month: **May 2003**	second prior month: **April 2003**	third prior month: **March 2003**
estimated precipitation total for this location:	**4.18**	**1.25**	**0.49**
there is a 30% chance this location will have less than:	2.21	0.99	0.78
there is a 30% chance this location will have more than:	3.17	2.06	1.44
type of month: dry normal wet	**wet**	**normal**	**dry**
monthly score	**3 * 3 = 9**	**2 * 2 = 4**	**1 * 1 = 1**
multi-month score: 6 to 9 (dry) 10 to 14 (normal) 15 to 18 (wet)	**14 (Normal)**		

Other Resources:

- retrieve daily precipitation data
- view radar-based precipitation estimates
- view weekly precipitation maps
- *Evaluating Antecedent Precipitation Conditions* (BWSR)

Appendix B

Wetland Hydrology from Aerial Imagery

Exhibit 1

Wetland Hydrology from Aerial Imagery

Worksheet Set A

				TWP	RNG	Section
Project:	Maple River to Buffalo River 69 kV Line Rebuild	**County:**	Clay County, MN; western edge in Cass County ND	140	48	3-6
Applicant:	Minnkota Power Cooperative			140	49	1-2
Investigator:	Jess Buter	**Date:**	April 2023			

Adapted from St. Paul District USACE: Guidance for Offsite Hydrology/Wetland Determinations

Summary Table (Areas 1 to 10)

Image Date	Image Source	Climate Condition[i]	Image Interpretation(s) *Enter area names in the red boxes below:*									
			1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
2021	FSA	Normal	NC	WS	WS	WS	NV	NV	CS	WS	NV	NV
2019	FSA	Wet	WS	WS	WS	WS	NV	CS	CS	WS	DO	SS
2017	FSA	Dry	WS	WS	WS	WS	NV	NV	CS	WS	NV	NV
2015	FSA	Normal	WS	WS	WS	WS	NV	NV	CS	WS	NV	DO
2013	FSA	Normal	WS	WS	WS	WS	NV	DO	CS	WS	SS	DO
2010	FSA	Wet	WS	WS	WS	WS	NV	NV	CS	SW	SS	NV
2009	FSA	Normal	WS	WS	WS	WS	NV	NV	NV	NV	NV	SS
2008	FSA	Normal	WS	WS	WS	WS	NV	CS	CS	WS	NV	NV
2003	FSA	Normal	WS	WS	WS	WS	NV	CS	CS	WS	NV	SS
Normal Climate Condition			**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Number			6	6	6	6	6	6	6	6	6	6
Number with wet signatures			6	6	6	6	0	3	5	5	1	4
Percent with wet signatures			100%	100%	100%	100%	0%	50%	83%	83%	17%	67%

KEY

WS - wetland signature	**SS - soil wetness signature**	**CS - crop stress**
NC - not cropped	**AP - altered pattern**	**NV - normal vegetative cover**
DO - drowned out	**SW - standing water**	**NSS – no soil wetness signature**

Other labels or comments:

• Use above key to label image interpretations. It is imperative that the reviewer read and understand the guidance associatedwith the use of these labels. If alternate labels are used, indicate in box above.

• If less than five (5) images taken during normal climate conditions are available, use an equal number of images taken during wet and dry climate conditions and use as many images as you have available. Describe the results using this methodology in your report.

[i] Use MN State Climatology website to determine climate condition when image was taken.

Exhibit 2

Wetland Delineation from Aerial Imagery

Worksheet Set A

Project:	**Maple River to Buffalo River 69 kV Line Rebuild**				**County:**	**Clay MN/Cass ND**
Client:	**Minnkota Power Cooperative**				**Date:**	**April 2023**
Investigator:	**Jess Buter**					
Areas 1-10	**Township:**	**140**	**140**	**-**	**-**	**-**
	Range:	**48**	**49**	**-**	**-**	**-**
	Section:	**3-6**	**1-2**	**-**	**-**	**-**

Decision Matrix				
Hydric Soils Present[1]	**Identified on NWI or other wetland map[2]**	**Percent with wet signatures**	**Field verification required[3]**	**Wetland?**
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators present
No	No	30-50%	Yes	Yes, if other hydrology indicators present
No	No	<30%	No	No

[1] The presence of hydric soils can be determined from the "Hydric Rating by Map Unit Feature" under "Land Classifications" from the Web Soil Survey. "Not Hydric" is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

[2] At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

[3] Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).

Table 1 (Areas 1-10).

Area	Field verified upland feature[1]	Hydric soils present	Identified on NWI or other wetland map	Percent with wet signatures	Field wetland verification required	Other hydrology indicators present[2]	Wetland?
1	N/A	Yes	No	100%	No	N/A	**Yes**
2	N/A	No	Yes	100%	No	N/A	**Yes**
3	N/A	Yes	Yes	100%	No	N/A	**Yes**
4	N/A	Yes	Yes	100%	No	N/A	**Yes**
5	N/A	Yes	No	0%	No	N/A	**No**
6	N/A	Yes	Yes	50%	No	N/A	**Yes**
7	N/A	Yes	No	83%	No	N/A	**Yes**
8	N/A	Yes	Yes	83%	No	N/A	**Yes**
9	N/A	Yes	No	17%	No	N/A	**No**
10	N/A	Yes	Yes	67%	No	N/A	**Yes**

[1] Select "N/A" unless field verification was completed for features that appear as wetlands on imagery but are upland features, such as mounds, excavations, cleared vegetation, rock piles, vegetated hillslopes, etc. If "Yes" is selected then select "N/A" for the Hydric Soil and NWI columns.

[2] Answer "N/A" if field verification is not required and was not conducted.

Comments:

Exhibit 1

Wetland Hydrology from Aerial Imagery

Worksheet Set A

Project:	Maple River to Buffalo River 69 kV Line Rebuild	**County:**	Clay County, MN
Applicant:	Minnkota Power Cooperative		
Investigator:	Jess Buter	**Date:**	April 2023

TWP	RNG	Section
140	46	6
140	48	1-2
141	46	32

BARR

Adapted from St. Paul District USACE: Guidance for Offsite Hydrology/Wetland Determinations

Summary Table (Areas 11 to 20)

Image Date	Image Source	Climate Condition[i]	Image Interpretation(s) *Enter area names in the red boxes below:*									
			11	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
2021	FSA	Normal	NV	NV	NV	WS	SW	WS	WS	WS	WS	CS
2019	FSA	Wet	CS	CS	NV	WS	NV	WS	WS	WS	WS	CS
2017	FSA	Dry	NV	NV	NV	WS	NV	WS	WS	WS	WS	CS
2015	FSA	Normal	NV	DO	NV	WS	NV	CS	WS	WS	WS	NV
2013	FSA	Normal	CS	NV	NV	WS	NV	WS	WS	WS	WS	CS
2010	FSA	Wet	CS	CS	NV	WS	NV	WS	WS	WS	WS	CS
2009	FSA	Normal	NV	NV	NV	WS	NV	WS	WS	WS	WS	CS
2008	FSA	Normal	NV	NV	NV	WS	NV	WS	WS	WS	WS	CS
2003	FSA	Normal	NV	NV	NV	WS	NV	WS	WS	WS	WS	CS
Normal Climate Condition			**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Number			6	6	6	6	6	6	6	6	6	6
Number with wet signatures			1	1	0	6	1	6	6	6	6	5
Percent with wet signatures			17%	17%	0%	100%	17%	100%	100%	100%	100%	83%

KEY		
WS - wetland signature	**SS - soil wetness signature**	**CS - crop stress**
NC - not cropped	**AP - altered pattern**	**NV - normal vegetative cover**
DO - drowned out	**SW - standing water**	**NSS – no soil wetness signature**

Other labels or comments:

• Use above key to label image interpretations. It is imperative that the reviewer read and understand the guidance associatedwith the use of these labels. If alternate labels are used, indicate in box above.

• If less than five (5) images taken during normal climate conditions are available, use an equal number of images taken during wet and dry climate conditions and use as many images as you have available. Describe the results using this methodology in your report.

[i] Use MN State Climatology website to determine climate condition when image was taken.

Exhibit 2

Wetland Delineation from Aerial Imagery

Worksheet Set A

Project:	**Maple River to Buffalo River 69 kV Line Rebuild**				**County:**	**Clay County, MN**
Client:	**Minnkota Power Cooperative**				**Date:**	**April 2023**
Investigator:	**Jess Buter**					
Areas 11-20	**Township:**	**140**	**140**	**141**	**-**	**-**
	Range:	**46**	**48**	**46**	**-**	**-**
	Section:	**6**	**1-2**	**32**	**-**	**-**

Decision Matrix				
Hydric Soils Present[1]	**Identified on NWI or other wetland map[2]**	**Percent with wet signatures**	**Field verification required[3]**	**Wetland?**
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators present
No	No	30-50%	Yes	Yes, if other hydrology indicators present
No	No	<30%	No	No

[1] The presence of hydric soils can be determined from the "Hydric Rating by Map Unit Feature" under "Land Classifications" from the Web Soil Survey. "Not Hydric" is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

[2] At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

[3] Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).

Table 1 (Areas 11-20).

Area	Field verified upland feature[1]	Hydric soils present	Identified on NWI or other wetland map	Percent with wet signatures	Field wetland verification required	Other hydrology indicators present[2]	Wetland?
11	N/A	Yes	No	17%	No	N/A	**No**
12	N/A	Yes	No	17%	No	N/A	**No**
13	N/A	Yes	Yes	0%	Yes	N/A	**Yes**
14	N/A	Yes	Yes	100%	No	N/A	**Yes**
15	N/A	Yes	Yes	17%	Yes	N/A	**Yes**
16	N/A	Yes	No	100%	No	N/A	**Yes**
17	N/A	Yes	No	100%	No	N/A	**Yes**
18	N/A	Yes	No	100%	No	N/A	**Yes**
19	N/A	Yes	No	100%	No	N/A	**Yes**
20	N/A	Yes	No	83%	No	N/A	**Yes**

[1] Select "N/A" unless field verification was completed for features that appear as wetlands on imagery but are upland features, such as mounds, excavations, cleared vegetation, rock piles, vegetated hillslopes, etc. If "Yes" is selected then select "N/A" for the Hydric Soil and NWI columns.

[2] Answer "N/A" if field verification is not required and was not conducted.

Comments: Areas 13 and 15 were assumed wetland since no field verification to identify presence of other hydrology indicators was conducted.

Exhibit 1

Wetland Hydrology from Aerial Imagery

Worksheet Set A

Project:	Maple River to Buffalo River 69 kV Line Rebuild	**County:**	Clay County, MN	**TWP**	**RNG**	**Section**
Applicant:	Minnkota Power Cooperative			141	45	31
Investigator:	Jess Buter	**Date:**	April 2023	141	46	34-36

Adapted from St. Paul District USACE: Guidance for Offsite Hydrology/Wetland Determinations

Summary Table (Areas 21 to 30)

Image Date	Image Source	Climate Condition[i]	Image Interpretation(s) *Enter area names in the red boxes below:*									
			21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
2021	FSA	**Normal**	WS	WS	WS	NV	WS	NV	WS	NV	NV	WS
2019	FSA	**Wet**	WS	WS	WS	NV	WS	NV	WS	WS	NV	WS
2017	FSA	**Dry**	WS	WS	WS	NV	WS	NV	WS	NV	WS	WS
2015	FSA	**Normal**	NV	NV	WS	DO	SW	NV	NV	WS	WS	WS
2013	FSA	**Normal**	WS	WS	WS	NV	SW	NV	WS	NV	NV	WS
2010	FSA	**Wet**	WS	WS	WS	WS	WS	WS	SS	WS	WS	WS
2009	FSA	**Normal**	WS	WS	NV	NV	WS	NV	WS	SS	NV	WS
2008	FSA	**Normal**	WS	WS	NV	NV	WS	NV	WS	WS	WS	WS
2003	FSA	**Normal**	WS	WS	WS	NV	WS	NV	WS	NV	CS	WS
Normal Climate Condition			**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
Number			6	6	6	6	6	6	6	6	6	6
Number with wet signatures			5	5	4	1	6	0	5	3	3	6
Percent with wet signatures			83%	83%	67%	17%	100%	0%	83%	50%	50%	100%

KEY		
WS - wetland signature	**SS - soil wetness signature**	**CS - crop stress**
NC - not cropped	**AP - altered pattern**	**NV - normal vegetative cover**
DO - drowned out	**SW - standing water**	**NSS – no soil wetness signature**

Other labels or comments:

• Use above key to label image interpretations. It is imperative that the reviewer read and understand the guidance associatedwith the use of these labels. If alternate labels are used, indicate in box above.

• If less than five (5) images taken during normal climate conditions are available, use an equal number of images taken during wet and dry climate conditions and use as many images as you have available. Describe the results using this methodology in your report.

[i] Use MN State Climatology website to determine climate condition when image was taken.

Exhibit 2

Wetland Delineation from Aerial Imagery

Worksheet Set A

Project:	**Maple River to Buffalo River 69 kV Line Rebuild**				**County:**	**Clay County, MN**
Client:	**Minnkota Power Cooperative**				**Date:**	**April 2023**
Investigator:	**Jess Buter**					
Areas 21-30	**Township:**	**141**	**141**	-	-	-
	Range:	**45**	**46**	-	-	-
	Section:	**31**	**34-36**	-	-	-

Decision Matrix				
Hydric Soils Present[1]	**Identified on NWI or other wetland map[2]**	**Percent with wet signatures**	**Field verification required[3]**	**Wetland?**
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators present
No	No	30-50%	Yes	Yes, if other hydrology indicators present
No	No	<30%	No	No

[1] The presence of hydric soils can be determined from the "Hydric Rating by Map Unit Feature" under "Land Classifications" from the Web Soil Survey. "Not Hydric" is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

[2] At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

[3] Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).

Table 1 (Areas 21-30).

Area	Field verified upland feature[1]	Hydric soils present	Identified on NWI or other wetland map	Percent with wet signatures	Field wetland verification required	Other hydrology indicators present[2]	Wetland?
21	N/A	Yes	No	83%	No	N/A	**Yes**
22	N/A	Yes	No	83%	No	N/A	**Yes**
23	N/A	Yes	No	67%	No	N/A	**Yes**
24	N/A	Yes	No	17%	No	N/A	**No**
25	N/A	Yes	Yes	100%	No	N/A	**Yes**
26	N/A	Yes	No	0%	No	N/A	**No**
27	N/A	Yes	No	83%	No	N/A	**Yes**
28	N/A	Yes	No	50%	Yes	N/A	**Yes**
29	N/A	Yes	Yes	50%	No	N/A	**Yes**
30	N/A	Yes	No	100%	No	N/A	**Yes**

[1] Select "N/A" unless field verification was completed for features that appear as wetlands on imagery but are upland features, such as mounds, excavations, cleared vegetation, rock piles, vegetated hillslopes, etc. If "Yes" is selected then select "N/A" for the Hydric Soil and NWI columns.

[2] Answer "N/A" if field verification is not required and was not conducted.

Comments: Area 28 was assumed wetland since no field verification to identify presence of other hydrology indicators was conducted.

Exhibit 1

Wetland Hydrology from Aerial Imagery

Worksheet Set A

Project:	Maple River to Buffalo River 69 kV Line Rebuild	**County:**	Clay County, MN	**TWP**	**RNG**	**Section**
Applicant:	Minnkota Power Cooperative			141	45	32-34
Investigator:	Jess Buter	**Date:**	April 2023			

Adapted from St. Paul District USACE: Guidance for Offsite Hydrology/Wetland Determinations

Summary Table (Areas 31 to 40)

Image Date	Image Source	Climate Condition[i]	Image Interpretation(s) *Enter area names in the red boxes below:*									
			31	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
2021	FSA	**Normal**	NV	NV	WS	SW	WS	SW	WS	NV	WS	WS
2019	FSA	**Wet**	CS	NV	WS	SW	WS	SW	WS	NV	WS	WS
2017	FSA	**Dry**	NV	NV	WS	SW	WS	SW	WS	NV	WS	WS
2015	FSA	**Normal**	CS	NV	WS	SW	WS	SW	WS	NV	WS	WS
2013	FSA	**Normal**	DO	CS	WS	SW	WS	SW	WS	NV	WS	WS
2010	FSA	**Wet**	DO	SW	WS	SW	WS	SW	WS	WS	WS	WS
2009	FSA	**Normal**	SS	SS	WS	SW	WS	SW	WS	NV	WS	WS
2008	FSA	**Normal**	SS	NV	WS	SW	WS	SW	WS	NV	WS	WS
2003	FSA	**Normal**	NV	NV	WS	SW	WS	SW	WS	NV	WS	WS
Normal Climate Condition			**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Number			6	6	6	6	6	6	6	6	6	6
Number with wet signatures			4	2	6	6	6	6	6	0	6	6
Percent with wet signatures			67%	33%	100%	100%	100%	100%	100%	0%	100%	100%

KEY		
WS - wetland signature	**SS - soil wetness signature**	**CS - crop stress**
NC - not cropped	**AP - altered pattern**	**NV - normal vegetative cover**
DO - drowned out	**SW - standing water**	**NSS – no soil wetness signature**

Other labels or comments:

• Use above key to label image interpretations. It is imperative that the reviewer read and understand the guidance associatedwith the use of these labels. If alternate labels are used, indicate in box above.

• If less than five (5) images taken during normal climate conditions are available, use an equal number of images taken during wet and dry climate conditions and use as many images as you have available. Describe the results using this methodology in your report.

[i] Use MN State Climatology website to determine climate condition when image was taken.

Exhibit 2

Wetland Delineation from Aerial Imagery

Worksheet Set A

Project:	**Maple River to Buffalo River 69 kV Line Rebuild**				**County:**	**Clay County, MN**
Client:	**Minnkota Power Cooperative**				**Date:**	**April 2023**
Investigator:	**Jess Buter**					
Areas 31-40	**Township:**	**141**	-	-	-	-
	Range:	**45**	-	-	-	-
	Section:	**32-34**	-	-	-	-

Decision Matrix				
Hydric Soils Present[1]	**Identified on NWI or other wetland map[2]**	**Percent with wet signatures**	**Field verification required[3]**	**Wetland?**
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators present
No	No	30-50%	Yes	Yes, if other hydrology indicators present
No	No	<30%	No	No

[1] The presence of hydric soils can be determined from the "Hydric Rating by Map Unit Feature" under "Land Classifications" from the Web Soil Survey. "Not Hydric" is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

[2] At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

[3] Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).

Table 1 (Areas 31-40).

Area	Field verified upland feature[1]	Hydric soils present	Identified on NWI or other wetland map	Percent with wet signatures	Field wetland verification required	Other hydrology indicators present[2]	Wetland?
31	N/A	Yes	No	67%	No	N/A	**Yes**
32	N/A	Yes	No	33%	Yes	N/A	**Yes**
33	N/A	Yes	Yes	100%	No	N/A	**Yes**
34	N/A	No	Yes	100%	No	N/A	**Yes**
35	N/A	Yes	No	100%	No	N/A	**Yes**
36	N/A	Yes	Yes	100%	No	N/A	**Yes**
37	N/A	Yes	Yes	100%	No	N/A	**Yes**
38	N/A	Yes	No	0%	No	N/A	**No**
39	N/A	Yes	Yes	100%	No	N/A	**Yes**
40	N/A	Yes	No	100%	No	N/A	**Yes**

[1] Select "N/A" unless field verification was completed for features that appear as wetlands on imagery but are upland features, such as mounds, excavations, cleared vegetation, rock piles, vegetated hillslopes, etc. If "Yes" is selected then select "N/A" for the Hydric Soil and NWI columns.

[2] Answer "N/A" if field verification is not required and was not conducted.

Comments: Area 32 was assumed wetland since no field verification to identify presence of other hydrology indicators was conducted.

Exhibit 1

Wetland Hydrology from Aerial Imagery

Worksheet Set A

Project:	Maple River to Buffalo River 69 kV Line Rebuild	**County:**	Clay County, MN	**TWP**	**RNG**	**Section**
Applicant:	Minnkota Power Cooperative			141	44	31
Investigator:	Jess Buter	**Date:**	April 2023	141	45	34-36

Adapted from St. Paul District USACE: Guidance for Offsite Hydrology/Wetland Determinations

Summary Table (Areas 41 to 50)

Image Date	Image Source	Climate Condition[i]	Image Interpretation(s) *Enter area names in the red boxes below:*									
			41	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**
2021	FSA	**Normal**	NV	WS	WS	WS	WS	NV	WS	SW	WS	WS
2019	FSA	**Wet**	NV	WS	WS	WS	WS	DO	WS	SW	WS	WS
2017	FSA	**Dry**	NV	NV	WS	WS	WS	NV	WS	SW	WS	WS
2015	FSA	**Normal**	NV	WS	WS	WS	WS	CS	WS	SW	WS	WS
2013	FSA	**Normal**	NV	NV	WS	WS	WS	DO	WS	SW	WS	WS
2010	FSA	**Wet**	SW	WS	WS	WS	WS	SW	WS	SW	WS	WS
2009	FSA	**Normal**	SS	WS	WS	WS	WS	SS	WS	SW	WS	WS
2008	FSA	**Normal**	NV	WS	WS	WS	WS	DO	WS	SW	WS	WS
2003	FSA	**Normal**	NV	WS	WS	WS	WS	NV	WS	SW	WS	WS
Normal Climate Condition			**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**
Number			6	6	6	6	6	6	6	6	6	6
Number with wet signatures			1	5	6	6	6	4	6	6	6	6
Percent with wet signatures			17%	83%	100%	100%	100%	67%	100%	100%	100%	100%

KEY		
WS - wetland signature	**SS - soil wetness signature**	**CS - crop stress**
NC - not cropped	**AP - altered pattern**	**NV - normal vegetative cover**
DO - drowned out	**SW - standing water**	**NSS – no soil wetness signature**

Other labels or comments:

• Use above key to label image interpretations. It is imperative that the reviewer read and understand the guidance associatedwith the use of these labels. If alternate labels are used, indicate in box above.

• If less than five (5) images taken during normal climate conditions are available, use an equal number of images taken during wet and dry climate conditions and use as many images as you have available. Describe the results using this methodology in your report.

[i] Use MN State Climatology website to determine climate condition when image was taken.

Exhibit 2

Wetland Delineation from Aerial Imagery

Worksheet Set A

Project:	**Maple River to Buffalo River 69 kV Line Rebuild**				**County:**	**Clay County, MN**
Client:	**Minnkota Power Cooperative**				**Date:**	**April 2023**
Investigator:	**Jess Buter**					
Areas 41-50	**Township:**	**141**	**141**	-	-	-
	Range:	**44**	**45**	-	-	-
	Section:	**31**	**34-36**	-	-	-

Decision Matrix				
Hydric Soils Present[1]	**Identified on NWI or other wetland map[2]**	**Percent with wet signatures**	**Field verification required[3]**	**Wetland?**
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators present
No	No	30-50%	Yes	Yes, if other hydrology indicators present
No	No	<30%	No	No

[1] The presence of hydric soils can be determined from the "Hydric Rating by Map Unit Feature" under "Land Classifications" from the Web Soil Survey. "Not Hydric" is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

[2] At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

[3] Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).

Table 1 (Areas 41-50).

Area	Field verified upland feature[1]	Hydric soils present	Identified on NWI or other wetland map	Percent with wet signatures	Field wetland verification required	Other hydrology indicators present[2]	Wetland?
41	N/A	Yes	No	17%	No	N/A	**No**
42	N/A	Yes	No	83%	No	N/A	**Yes**
43	N/A	Yes	Yes	100%	No	N/A	**Yes**
44	N/A	Yes	Yes	100%	No	N/A	**Yes**
45	N/A	Yes	No	100%	No	N/A	**Yes**
46	N/A	Yes	No	67%	No	N/A	**Yes**
47	N/A	Yes	Yes	100%	No	N/A	**Yes**
48	N/A	Yes	Yes	100%	No	N/A	**Yes**
49	N/A	Yes	No	100%	No	N/A	**Yes**
50	N/A	Yes	Yes	100%	No	N/A	**Yes**

[1] Select "N/A" unless field verification was completed for features that appear as wetlands on imagery but are upland features, such as mounds, excavations, cleared vegetation, rock piles, vegetated hillslopes, etc. If "Yes" is selected then select "N/A" for the Hydric Soil and NWI columns.

[2] Answer "N/A" if field verification is not required and was not conducted.

Comments:

Exhibit 1

Wetland Hydrology from Aerial Imagery

Worksheet Set A

				TWP	RNG	Section
Project:	Maple River to Buffalo River 69 kV Line Rebuild	**County:**	Clay County, MN	141	44	31
Applicant:	Minnkota Power Cooperative					
Investigator:	Jess Buter	**Date:**	April 2023			

Adapted from St. Paul District USACE: Guidance for Offsite Hydrology/Wetland Determinations

Summary Table (Area 51)

Image Date	Image Source	Climate Condition[i]	Image Interpretation(s) *Enter area names in the red boxes below:*									
			51									
2021	FSA	**Normal**	WS									
2019	FSA	**Wet**	WS									
2017	FSA	**Dry**	WS									
2015	FSA	**Normal**	WS									
2013	FSA	**Normal**	WS									
2010	FSA	**Wet**	WS									
2009	FSA	**Normal**	WS									
2008	FSA	**Normal**	WS									
2003	FSA	**Normal**	WS									
Normal Climate Condition			**51**	-	-	-	-	-	-	-	-	-
Number			6	6	6	6	6	6	6	6	6	6
Number with wet signatures			6	0	0	0	0	0	0	0	0	0
Percent with wet signatures			100%	0%	0%	0%	0%	0%	0%	0%	0%	0%

KEY		
WS - wetland signature	**SS - soil wetness signature**	**CS - crop stress**
NC - not cropped	**AP - altered pattern**	**NV - normal vegetative cover**
DO - drowned out	**SW - standing water**	**NSS – no soil wetness signature**

Other labels or comments:

• Use above key to label image interpretations. It is imperative that the reviewer read and understand the guidance associatedwith the use of these labels. If alternate labels are used, indicate in box above.

• If less than five (5) images taken during normal climate conditions are available, use an equal number of images taken during wet and dry climate conditions and use as many images as you have available. Describe the results using this methodology in your report.

[i] Use MN State Climatology website to determine climate condition when image was taken.

Exhibit 2

Wetland Delineation from Aerial Imagery

Worksheet Set A

Project:	**Maple River to Buffalo River 69 kV Line Rebuild**				**County:**	**Clay County, MN**
Client:	**Minnkota Power Cooperative**				**Date:**	**April 2023**
Investigator:	**Jess Buter**					
Area 51	**Township:**	**141**	-	-	-	-
	Range:	**44**	-	-	-	-
	Section:	**31**	-	-	-	-

Decision Matrix				
Hydric Soils Present[1]	**Identified on NWI or other wetland map[2]**	**Percent with wet signatures**	**Field verification required[3]**	**Wetland?**
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators present
No	No	30-50%	Yes	Yes, if other hydrology indicators present
No	No	<30%	No	No

[1] The presence of hydric soils can be determined from the "Hydric Rating by Map Unit Feature" under "Land Classifications" from the Web Soil Survey. "Not Hydric" is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

[2] At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

[3] Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2 indicator (geomorphic position).

Table 1 (Area 51).

Area	Field verified upland feature[1]	Hydric soils present	Identified on NWI or other wetland map	Percent with wet signatures	Field wetland verification required	Other hydrology indicators present[2]	Wetland?
51	N/A	Yes	No	100%	No	N/A	**Yes**
-				0%	No		**No**
-				0%	No		**No**
-				0%	No		**No**
-				0%	No		**No**
-				0%	No		**No**
-				0%	No		**No**
-				0%	No		**No**
-				0%	No		**No**
-				0%	No		**No**

[1] Select "N/A" unless field verification was completed for features that appear as wetlands on imagery but are upland features, such as mounds, excavations, cleared vegetation, rock piles, vegetated hillslopes, etc. If "Yes" is selected then select "N/A" for the Hydric Soil and NWI columns.

[2] Answer "N/A" if field verification is not required and was not conducted.

Comments:

Appendix D

IPaC Documentation

Appendix D IPaC Documentation

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
Phone: (952) 858-0793 Fax: (952) 646-2873

In Reply Refer To: June 06, 2023
Project Code: 2023-0006588
Project Name: Maple River (ND) to Buffalo River (MN) Switch 69kV Line Rebuild

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:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

Threatened and Endangered Species
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 may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife 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. 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. The Service recommends that verification be completed by visiting the ECOS 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 ECOS IPaC system by completing the same process used to receive the enclosed list.

Consultation Technical Assistance
Please refer to refer to our Section 7 website for guidance and technical assistance, including step-by-step instructions for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, USDA Rural Development projects, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

We recommend running the project (if it qualifies) through our **Minnesota-Wisconsin Federal Endangered Species Determination Key (Minnesota-Wisconsin ("D-key"))**. A demonstration video showing how-to access and use the determination key is available. Please note that the Minnesota-Wisconsin D-key is the third option of 3 available d-keys. D-keys are tools to help Federal agencies and other project proponents determine if their proposed action has the potential to adversely affect federally listed species and designated critical habitat. The Minnesota-Wisconsin D-key includes a structured set of questions that assists a project proponent in determining whether a proposed project qualifies for a certain predetermined consultation outcome for all federally listed species found in Minnesota and Wisconsin (except for the northern long-eared bat- see below), which includes determinations of “no effect” or “may affect, not likely to adversely affect." In each case, the Service has compiled and analyzed the best available information on the species’ biology and the impacts of certain activities to support these determinations.

If your completed d-key output letter shows a "No Effect" (NE) determination for all listed species, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

For Federal projects with a “Not Likely to Adversely Affect” (NLAA) determination, our concurrence becomes valid if you do not hear otherwise from us after a 30-day review period, as indicated in your letter.

If your d-key output letter indicates additional coordination with the Minnesota-Wisconsin Ecological Services Field Office is necessary (i.e., you get a “May Affect” determination), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of the key; ESA compliance cannot be concluded using the key for “May Affect” determinations unless otherwise indicated in your output letter.

Note: Once you obtain your official species list, you are not required to continue in IPaC with d-keys, although in most cases these tools should expedite your review. If you choose to make an effects determination on your own, you may do so. If the project is a Federal Action, you may want to review our section 7 step-by-step instructions before making your determinations.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. 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 Life History Information for Listed and Candidate Species on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

Northern Long-Eared Bats
Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

This species hibernates in caves or mines only during the winter. In Minnesota and Wisconsin, the hibernation season is considered to be November 1 to March 31. During the active season (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥3 inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of 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 and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
- Trees found in highly developed urban areas (e.g., street trees, downtown areas),
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A monoculture stand of shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or
- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No**

Effect determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

If any of the above activities are proposed, and the northern long-eared bat appears on the user's species list, the federal project user will be directed to either the range-wide northern long-eared bat D-key or the Federal Highways Administration, Federal Railways Administration, and Federal Transit Administration Indiana bat/ Northern long-eared bat D-key, depending on the type of project and federal agency involvement. Similar to the Minnesota-Wisconsin D-key, these d-keys helps to determine if prohibited take might occur and, if not, will generate an automated verification letter.

Please note: On November 30, 2022, the Service published a proposal final rule to reclassify the northern long-eared bat as endangered under the Endangered Species Act. On January 26, 2023, the Service published a 60-day extension for the final reclassification rule in the Federal Register, moving the effective listing date from January 30, 2023, to March 31, 2023. This extension will provide stakeholders and the public time to preview interim guidance and consultation tools before the rule becomes effective. When available, the tools will be available on the Service's northern long-eared bat website (https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis). Once the final rule goes into effect on March 31, 2023, the 4(d) D-key will no longer be available (4(d) rules are not available for federally endangered species) and will be replaced with a new Range-wide NLEB D-key (range-wide d-key). For projects not completed by March 31, 2023, that were previously reviewed under the 4(d) d-key, there may be a need for reinitiation of consultation. For these ongoing projects previously reviewed under the 4(d) d-key that may result in incidental take of the northern long-eared bat, we recommend you review your project using the new range-wide d-key once available. If your project does not comply with the range-wide d-key, it may be eligible for use of the Interim (formal) Consultation framework (framework). The framework is intended to facilitate the transition from the 4(d) rule to typical Section 7 consultation procedures for federally endangered species and will be available only until spring 2024. Again, when available, these tools (new range-wide d-key and framework) will be available on the Service's northern long-eared bat website.

Whooping Crane

Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States."

Other Trust Resources and Activities

Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the

mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed voluntary guidelines for minimizing impacts.

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to guidelines developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's Wind Energy Guidelines. In addition, please refer to the Service's Eagle Conservation Plan Guidance, which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

State Department of Natural Resources Coordination
While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.

Minnesota
Minnesota Department of Natural Resources - Endangered Resources Review Homepage
Email: Review.NHIS@state.mn.us

Wisconsin
Wisconsin Department of Natural Resources - Endangered Resources Review Homepage
Email: DNRERReview@wi.gov

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Note: IPaC has provided all available attachments because this project is in multiple field office jurisdictions.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- 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:

Minnesota-Wisconsin Ecological Services Field Office
3815 American Blvd East
Bloomington, MN 55425-1659
(952) 858-0793

This project's location is within the jurisdiction of multiple offices. However, only one species list document will be provided for all offices. The species and critical habitats in this document reflect the aggregation of those that fall in each of the affiliated office's jurisdiction. Other offices affiliated with the project:

North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926
(701) 250-4481

PROJECT SUMMARY

Project Code: 2023-0006588
Project Name: Maple River (ND) to Buffalo River (MN) Switch 69kV Line Rebuild
Project Type: Transmission Line - Maintenance/Modification - Above Ground
Project Description: Transmission line rebuild and underbuild (distribution line) project.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@46.9776033,-96.47586014416015,14z



Counties: Minnesota and North Dakota

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 Fisheries[1], 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.

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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 *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

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.

The following FWS National Wildlife Refuge Lands and Fish Hatcheries lie fully or partially within your project area:

FACILITY NAME	ACRES
CLAY COUNTY WATERFOWL PRODUCTION AREA OF MN https://www.fws.gov/refuges/profiles/index.cfm?id=32586	19,809.857

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

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)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover *Pluvialis dominica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Dec 1 to Aug 31

NAME	BREEDING SEASON
Black Tern *Chlidonias niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
California Gull *Larus californicus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Chestnut-collared Longspur *Calcarius ornatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 10
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Franklin's Gull *Leucophaeus pipixcan* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Golden Eagle *Aquila chrysaetos* 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/1680	Breeds Jan 1 to Aug 31
Golden-winged Warbler *Vermivora chrysoptera* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Hudsonian Godwit *Limosa haemastica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere

NAME	BREEDING SEASON
Lesser Yellowlegs *Tringa flavipes* 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
Marbled Godwit *Limosa fedoa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds May 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Ruddy Turnstone *Arenaria interpres morinella* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Short-billed Dowitcher *Limnodromus griseus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Sprague's Pipit *Anthus spragueii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8964	Breeds May 10 to Aug 31
Western Grebe *aechmophorus occidentalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Willet *Tringa semipalmata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5

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 and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see

below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

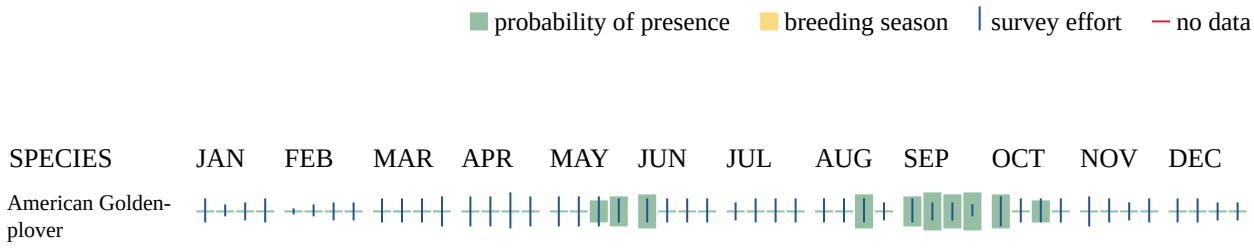
1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

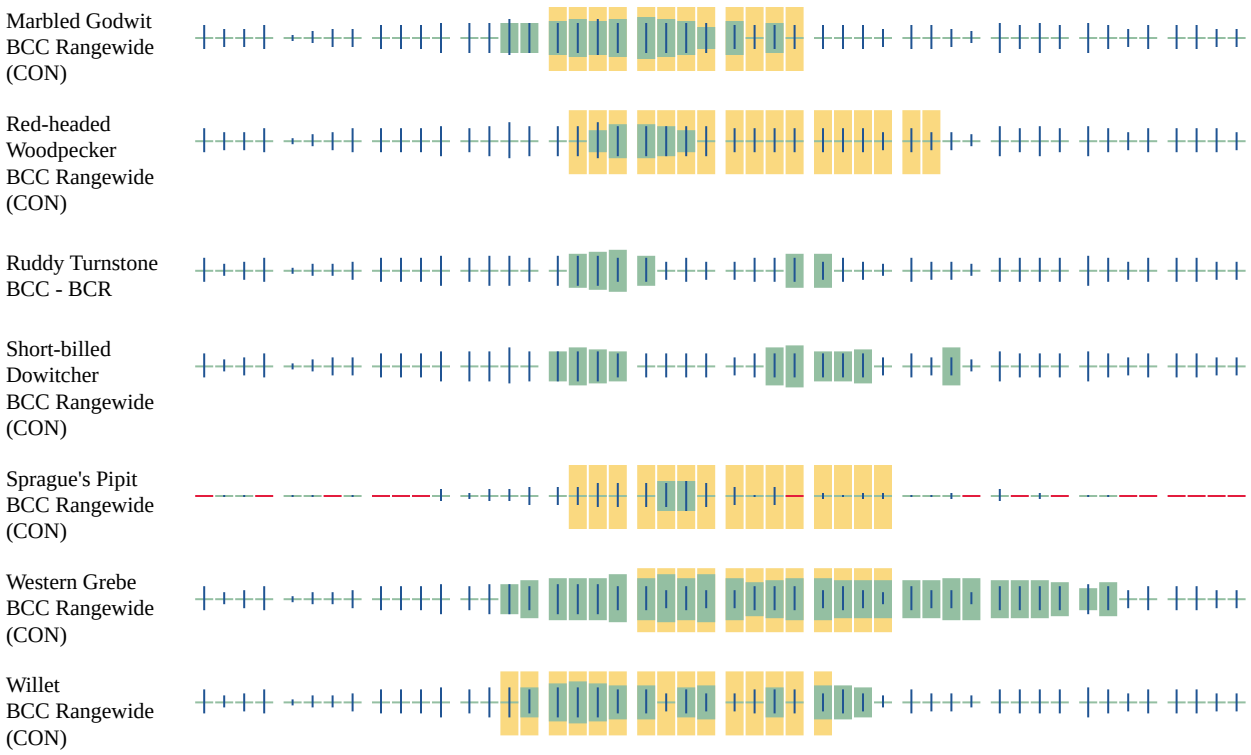
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.




BCC Rangewide (CON)
Bald Eagle Non-BCC Vulnerable
Black Tern BCC Rangewide (CON)
Black-billed Cuckoo BCC Rangewide (CON)
Bobolink BCC Rangewide (CON)
California Gull BCC Rangewide (CON)
Chestnut-collared Longspur BCC Rangewide (CON)
Chimney Swift BCC Rangewide (CON)
Clark's Grebe BCC Rangewide (CON)
Eastern Whip-poor-will BCC Rangewide (CON)
Franklin's Gull BCC Rangewide (CON)
Golden Eagle Non-BCC Vulnerable
SPECIES
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Golden-winged Warbler BCC Rangewide (CON)
Hudsonian Godwit BCC Rangewide (CON)
Lesser Yellowlegs BCC Rangewide (CON)



Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles)

potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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.

RIVERINE

- R4SBC
- R2UBH
- R5UBFx
- R4SBAx

FRESHWATER EMERGENT WETLAND

- PEM1A
- PEM1Cd
- PEM1C
- PEM1D
- PEM1Af
- PEM1Cx

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A
- PFO1C
- PFO1Ad

FRESHWATER POND

- PUBH
- PUBFd
- PUBF

IPAC USER CONTACT INFORMATION

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Phone: 9528322694

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Rural Utilities Service

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Assistant Regional Director-Ecological Services
5600 American Blvd. West
Bloomington, MN 55437-1458
Phone: (612) 713-5350 Fax: (612) 713-5292

In Reply Refer To: June 07, 2023
Project code: 2023-0006588
Project Name: Maple River (ND) to Buffalo River (MN) Switch 69kV Line Rebuild

Federal Nexus: yes
Federal Action Agency (if applicable): Rural Utilities Service

Subject: Technical assistance for 'Maple River (ND) to Buffalo River (MN) Switch 69kV Line Rebuild'

Dear Jess Butler:

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 June 07, 2023, for 'Maple River (ND) to Buffalo River (MN) Switch 69kV Line Rebuild' (here forward, Project). This project has been assigned Project Code 2023-0006588 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

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 the 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 Rangewide Determination Key (Dkey), invalidates this letter.

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project is not reasonably certain to cause incidental take of the northern long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

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

The IPaC-assisted determination for the northern long-eared 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* Candidate

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

Next Step

Consultation with the Service is necessary. The project has a federal nexus (e.g., Federal funds, permit, etc.), but you are not the federal action agency or its designated (in writing) non-federal representative. Therefore, the ESA consultation status is incomplete and no project activities should occur until consultation between the Service and the Federal action agency (or designated non-federal representative), is completed.

As the federal agency or designated non-federal representative deems appropriate, they should submit their determination of effects to the Service by doing the following.

1. Log into IPaC using an agency email account and click on My Projects, click "Search by record locator" to find this Project using **405-127341633**. (Alternatively, the originator of the project in IPaC can add the agency representative to the project by using the Add Member button on the project home page.)
2. Review the answers to the Northern Long-eared Bat Range-wide Determination Key to ensure that they are accurate.
3. Click on Review/Finalize to convert the ‘not likely to adversely affect’ consistency letter to a concurrence letter. Download the concurrence letter for your files if needed.

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the northern long-eared bat. 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 before project implements any changes which are final or commits additional resources.

If you have any questions regarding this letter or need further assistance, please contact the Assistant Regional Director-Ecological Services and reference Project Code 2023-0006588 associated with this Project.

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

1. Name

Maple River (ND) to Buffalo River (MN) Switch 69kV Line Rebuild

2. Description

The following description was provided for the project 'Maple River (ND) to Buffalo River (MN) Switch 69kV Line Rebuild':

> Transmission line rebuild and underbuild (distribution line) project.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@46.9776033,-96.47586014416015,14z



DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of "may affect, but not likely to adversely affect" for the Endangered northern long-eared bat (*Myotis septentrionalis*).

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat 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. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

   Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

   No

3. Does any component of the action involve construction or operation of wind turbines?

   Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   No

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

   Yes

5. 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

6. 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

7. 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

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

   No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the effects of any activities that would not occur but for the proposed action.

   If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

   Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of Effects of the Action can be found here: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

   No

10. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

    No

11. Does the action area contain or occur within 0.5 miles of (1) talus or (2) anthropogenic or naturally formed rock crevices in rocky outcrops, rock faces or cliffs?

    No

12. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?
    (If unsure, answer "Yes.")

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags ≥3 inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    Yes

13. Will the action cause effects to a bridge?

    No

14. Will the action result in effects to a culvert or tunnel?

    No

15. Does the action include the intentional exclusion of northern long-eared bats from a building or 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 are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local U.S. Fish and Wildlife Services Ecological Services Field Office to help assess whether northern long-eared 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

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

    No

17. 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

18. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic 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

19. 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

20. 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)?

    No

21. 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

22. Will the action include drilling or blasting?

    No

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

    No

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

    No

25. Will the action include or cause activities that are reasonably certain to cause chronic nighttime noise in suitable summer habitat for the northern long-eared bat? Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time.

    Note: Additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    No

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

    Note: Additional information defining suitable roosting habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    No

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

    Yes

28. 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? If unsure, answer "No."

    No

29. Does the action include emergency cutting or trimming of hazard trees in order to remove an imminent threat to human safety or property? See hazard tree note at the bottom of the key for text that will be added to response letters

    Note: A "hazard tree" is a tree that is an immediate threat to lives, public health and safety, or improved property and has a diameter breast height of six inches or greater.

    No

30. Are any of the trees proposed for cutting or other means of knocking down, bringing down, topping, or trimming suitable for northern long-eared bat roosting (i.e., live trees and/or snags ≥3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities)?

    Yes

31. [Semantic] Does your project intersect a known sensitive area for the northern long-eared bat?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your state agency or USFWS field office

    Automatically answered
    No

32. Will all tree cutting/trimming or other knocking or bringing down of trees be restricted to the inactive season for the northern long-eared bat?

    Note: Inactive Season dates for summer habitat outside of staging and swarming areas can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas.

    Yes

33. Will the action cause trees to be cut, knocked down, or otherwise brought down across an area greater than 10 acres?

    No

34. Will the action cause trees to be cut, knocked down, or otherwise brought down in a way that would fragment a forested connection (e.g., tree line) between two or more forest patches of at least 5 acres?

    The forest patches may consist of entirely contiguous forest or multiple forested areas that are separated by less than 1000’ of non-forested area. A project will fragment a forested connection if it creates an unforested gap of greater than 1000’.

    No

35. Will the action result in the use of prescribed fire?

    No

36. Will the action cause noises that are louder than ambient baseline noises within the action area?

    Yes

37. Will the action cause noises during the active season in suitable summer habitat that are louder than anthropogenic noises to which the affected habitat is currently exposed? Answer 'no' if the noises will occur only during the inactive period.

    Note: Inactive Season dates for areas within a spring staging/fall swarming area can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas.

    Note: Additional information defining suitable summer habitat for the northern long-eared bat can be found at: https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions

    Yes

PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

2.1

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the inactive (hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas

2.1

In what extent of the area (in acres) will trees be cut, knocked down, or trimmed during the active (non-hibernation) season for northern long-eared bat? **Note:** Inactive Season dates for spring staging/fall swarming areas can be found here: https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas

0

Will all potential northern long-eared bat (NLEB) roost trees (trees ≥3 inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

Yes

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

2.1

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

0

Will any snags (standing dead trees) ≥3 inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

No

Will all project activities by completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

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State: MN
Zip: 55435
Email jbutler@barr.com
Phone: 9528322694

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Rural Utilities Service

From:	Simpkins, Darin
To:	Jessica L. Butler
Cc:	Veronica A. Parsell; Samantha Roberts; Deems, Robert - RD, National Office
Subject:	Re: [EXTERNAL] Section 7 Review and Concurrence for the Maple River to Buffalo River Switch 69kV Line Rebuild
Date:	Thursday, July 20, 2023 9:23:18 AM
Attachments:	image001.png

CAUTION: This email originated from outside of your organization.

FWS No. : 2023-0006588

Jessica Butler:

The U.S. Fish and Wildlife Service (Service) received information from Barr Engineering Company (BARR) regarding the Maple River to Buffalo River Switch 69kV Line Rebuild Project with effects analyses on r Northern long-eared bat (*Myotis septentrionalis*; NLEB). BARR, on behalf of the United States Department of Agriculture Rural Utilities Service (USDA RUS), requested concurrence with effects determinations of "*May Affect, Not Likely to Adversely Affect*" the NLEB, in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq*.).

The project consists of replacing wood transmission line structures along approximately 25.5 total miles of existing 69 kilovolt (kV) transmission line. The Project runs from east of Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota. The portion of the underbuild to be buried is approximately 8.1 miles in length and would cross the Buffalo River. This portion of the Project is located entirely in Minnesota and extends from Section 4, Township 140N, Range 48W to Section 2, Township 140N, Range 47W. Red River Valley Electric Cooperative plans to bury the underbuild by plowing a trench at least 4 feet deep through portions of the alignment location in agricultural fields. Red River Valley Electric Cooperative plans to install the buried line via horizontal direction drilling (HDD) under roads, residential yards, and the Buffalo River. The replacement structures would primarily be single, monopole wood or ductile iron poles with fiberglass davit arms, toughened glass insulators, and a single shield wire. The proposed monopole structures would generally be self-supporting (un-guyed) and directly embedded. The new structures would range in height between 65 and 80 feet, with an average new pole height of approximately 70 feet. The new line would have a 350-foot to 400-foot span between structures. Two or three-pole structures may be used for wetland or water crossings greater than 350 feet. Deadend and angle structures, as well as some tangent structures used to span wetlands when feasible, would be guyed. Guy wires would be anchored using screw anchors.

The Project will occur within the existing transmission line right-of-way (ROW), which is 80 feet in width. The replacement structures are planned to be installed as close to the existing structure location as is possible and structurally safe (i.e., pole-to-pole replacement). The structure replacement process would generally include staging, erecting pole structures, and stringing the transmission line. Typical construction equipment that may be used for the Project includes line construction equipment, stringing equipment, and general construction equipment on rubber tires or tracks, as appropriate.

Minnkota would incorporate best management practices (BMPs) into Project design to minimize the

potential for impacts during construction; some of these measures may include constructing during winter months in some areas, installing silt fences and/or silt logs, and use of construction matting, Minnkota is anticipating removal of existing poles, with the replacement structures to be installed in the area where the original pole was removed (i.e., pole-to-pole replacement). The holes for setting the new transmission line structures would be mechanically augured, and the poles would be placed using a digger/derrick truck. Auger holes for wooden replacement structures would be approximately 27 inches in diameter. The augured holes for any laminate poles installed along the line would be approximately 72 inches (six feet) in diameter. Minnkota has not yet determined where along the line laminate poles would be required; however, most of the replacement poles are anticipated to be wood. After pole placement, holes would be backfilled with a crushed rock. Spoil earth from the augured hole would then be thinspread around the area at the base of the transmission structure. However, no placement of spoil earth would be allowed in wetlands.

Once construction is complete, line maintenance would consist of annual ground inspections. After construction, vegetation would be controlled according to Minnkota's vegetation management program. Construction activities are anticipated to begin in Fall 2023, pending approval of all required permits and environmental documents. Construction would be completed by Summer 2024. Minnkota is anticipating between six and eight months of construction, plus one additional month per seasonal transition. The Project would also be constructed in sections so that specific areas with seasonal restrictions can be completed as needed.

The Service concurs that this project *May Effect, Not Likely to Adversely Affect* the NLEB. If NLEB are present within the action area, we do not anticipate the loss of this habitat to have a significant impact to the species. The action is not likely to result in unauthorized take of the NLEB.

This concludes consultation under Section 7 of the Endangered Species Act, as amended for the species listed above. Consultation for candidate or non-listed species, such as Monarch Butterfly (*Danaus plexippus*), is not required at this time. Should you have any questions regarding this response, or if a change in project plans occurs, please contact Darin Simpkins (darin_simpkins@fws.gov; 920-866-1739) for additional assistance

---

From: Jessica L. Butler <JButler@barr.com>
Sent: Wednesday, July 19, 2023 3:51 PM
To: Simpkins, Darin <Darin_Simpkins@fws.gov>
Cc: Veronica A. Parsell <VParsell@barr.com>; Samantha Roberts <sroberts@minnkota.com>; Deems, Robert - RD, National Office <Robert.Deems@usda.gov>
Subject: [EXTERNAL] Section 7 Review and Concurrence for the Maple River to Buffalo River Switch 69kV Line Rebuild

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

Hi Darin,

Per our conversations over the last few days regarding problems with submitting the NLAA consistency letter to obtain concurrence in IPaC, I am providing you all the information you requested for the Maple River to Buffalo River Switch 69kV Line Rebuild Project.

Please let me know if you have any questions and if there is anything else I need to do on my end.

Thanks,

Jess

Jessica L. Butler

Senior Ecologist
Minneapolis, MN office: 952.832.2694
jbutler@barr.com
www.barr.com



If you no longer wish to receive marketing e-mails from Barr, respond to communications@barr.com and we will be happy to honor your request.

Appendix E

MDNR Natural Heritage Review

Minnesota Department of Natural Resources
Division of Ecological & Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

April 25, 2023
Correspondence # MCE 2022-00846

Jessica Butler
Barr Engineering Company

RE: Natural Heritage Review of the proposed Maple River (ND) to Buffalo River (MN) Switch 69kV Line, Clay County

Dear Jessica Butler,

As requested, the Minnesota Natural Heritage Information System has been reviewed to determine if the proposed project has the potential to impact any rare species or other significant natural features. Based on the project details provided with the request, the following rare features may be impacted by the proposed project:

Ecologically Significant Areas

- The Minnesota Biological Survey (MBS) has identified a Site of *Moderate* Biodiversity Significance and three areas ranked as *Below* that overlap the project boundary. There are also two Sites of *Moderate* Biodiversity Significance and several ranked as *Below* immediately adjacent to the south side of 90th St. Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Sites ranked as *Moderate* contain occurrences of rare species and/or moderately disturbed native plant communities, and/or landscapes that have a strong potential for recovery while those ranked as *Below* were considered for Sites of Biodiversity Significance but were determined to be below the minimum biodiversity threshold for statewide significance. These areas, however, have conservation value at the local level as habitat for native plants and animals, corridors for animal movements, buffers surrounding higher quality natural areas, or as areas with high potential for restoration of native habitat. The *Moderate* Site has a Mesic Prairie (Northern) native plant community within it. This is state-ranked as Imperiled. More than 99% of the prairie that was present in the state before settlement has been destroyed, and more than one-third of Minnesota's endangered, threatened, and special concern species are now dependent on the remaining small fragments of Minnesota's prairie ecosystem. Therefore, we feel that all prairie

remnants merit protection. We encourage you to consider project alternatives that would avoid or minimize disturbance to this ecologically significant area. Actions to minimize disturbance may include, but are not limited to, the following recommendations:

- Minimize vehicular disturbance in the MBS Site (allow only vehicles/equipment necessary for construction activities);
- Directionally bore under Sites;
- Do not park equipment or stockpile supplies in the MBS Site;
- Do not place spoil within MBS Site or other sensitive areas;
- Retain a buffer between proposed activities and the MBS Site;
- If possible, conduct the work under frozen ground conditions;
- Use effective erosion prevention and sediment control measures;
- Inspect and clean all equipment prior to bringing it to the Site to prevent the introduction and spread of invasive species;
- As much as possible, operate within already-disturbed areas;
- Revegetate disturbed soil with native species suitable to the local habitat as soon after construction as possible; and
- Use only weed-free mulches, topsoils, and seed mixes. Of particular concern are birdsfoot trefoil (*Lotus corniculatus*) and crown vetch (*Coronilla varia*), two invasive species that are sold commercially and are problematic in prairies and disturbed open areas.

MBS Sites of Biodiversity Significance and DNR Native Plant Communities can be viewed using the Minnesota Conservation Explorer or their GIS shapefiles can be downloaded from the MN Geospatial Commons. Please contact the NH Review Team if you need assistance accessing the data. Reference the MBS Site Biodiversity Significance and Native Plant Community websites for information on interpreting the data.

- The proposed project crosses areas identified as *Prairie Corridor* or *Prairie Core* in the Minnesota Prairie Conservation Plan, a twenty-five year strategy for accelerating prairie conservation in the state. To meet the Plan's goals, areas within *Prairie Corridor* Areas will need to include restoration. As such, any efforts toward prairie or grassland restoration after project construction are encouraged.

- If the Wetland Conservation Act (WCA) is applicable to this project, please note that one or more Native Plant Communities in the vicinity of the project may qualify as a "rare natural community" under this Act. Minnesota Rules, part 8420.0515, subpart 3 states that a wetland replacement plan for activities that modify a rare natural community must be denied if the local government unit determines the proposed activities will permanently adversely affect the natural community.

State-listed Species

- Louisiana broomrape (*Orobanche uniflora*), state-listed as threatened, and prairie moonwort (*Botrychium campestre* var. *campestre*), least moonwort (*Botrychium simplex*), small white lady's-slipper (*Cypripedium candidum*), and felwort (*Gentianella amarelia*), all state-listed as species of special concern, have been documented near the proposed project. These species are found on native prairies. Minnesota's Endangered Species Statute (*Minnesota Statutes*, section 84.0895) and associated Rules (*Minnesota Rules*, part 6212.1800 to 6212.2300 and 6134) prohibit the take of endangered or threatened plants or animals, including their parts or seeds, without a permit. **Impacts to areas mapped as Mesic Prairie (Northern) by MBS must be avoided (available at Minnesota Conservation Explorer or as GIS shapefiles from the MN Geospatial Commons).** If this is not possible and as Louisiana broomrape has been documented in the direct vicinity of the proposed project and the likely presence of potential habitat for other state-listed species, **a qualified surveyor is required to conduct a botanical survey in any potential habitat that will be impacted by the proposed project**. A habitat assessment may be needed if potential habitat is unknown. The purpose of the survey would be to delineate the current extent of known populations and to avoid any inadvertent take. Surveys must be conducted by a surveyor on the attached list and follow the standards contained in the Rare Species Survey Process and Rare Plant Guidance. Project planning should take into account that any botanical survey needs to be conducted during the appropriate time of the year, which may be limited. Please consult with the NH Review Team at Reports.NHIS@state.mn.us regarding this process.

- The loggerhead shrike (*Lanius ludovicianus*) and chestnut-collared longspur (*Calcarius ornatus*), both state-listed endangered birds, have been documented in the vicinity of the project site. These species are found in grassland habitats, especially native prairie. **Given the potential for these species to be found in the vicinity of the project, tree and shrub removal needs to be avoided during loggerhead shrike breeding season, April through July. As chestnut-collared longspurs nest on the ground, impacts to undisturbed grassland areas need to be avoided from mid-May to mid-August to protect nesting birds.** If you cannot avoid these impacts during breeding season, a qualified surveyor needs to conduct a survey for active nests before any trees or shrubs are removed or before disturbance to native prairie. Surveys must follow the standards contained in the Rare Species Survey Process. Please consult with the NH Review Team at Reports.NHIS@state.mn.us regarding this process. The list of approved DNR Animal Surveyors is attached to this MCE project. Project planning should take into account that the survey needs to be conducted during the appropriate time of the year, which may be limited.

- Marbled godwits (*Limosa fedoa*) and trumpeter swans (*Cygnus buccinator*), both state-listed bird of special concern, have been documented in the vicinity of the project. Marbled godwits prefer to feed and nest in short upland grassland areas along the edges of seasonal wetlands but are also known to nest in adjacent cropland stubble if the adequate habitat is limited. If feasible,

avoid impacts to nesting habitat between May and August. During the breeding season, trumpeter swans select small ponds and lakes with extensive beds of cattails, bulrush, sedges, and/or horsetail. Ideal habitat includes about 100 m of open water for take-off, stable levels of unpolluted water, emergent vegetation, low levels of human disturbance, and the presence of muskrat (*Ondatra zibethicus*) houses and American beaver (*Castor canadensis*) lodges for use as nesting platforms. If any of the wetlands on site provide suitable habitat, swans may choose to nest in these wetlands. Construction activities that occur during the nesting season, late April through early June, could disrupt nesting swans, if present.

- Prairie voles (*Microtus ochrogaster*) and northern grasshopper mouse (*Onychomys leucogaster*), both species of special concern, have been documented near the proposed project area. These species are found in upland grassy sites, including quarry or mine sites. To help protect these species, the DNR recommends that the use of erosion control mesh, if any, be limited to wildlife-friendly materials.

- Booming grounds of the greater prairie chicken (*Tympanuchus cupido*), a state-listed bird of special concern, have been documented in the vicinity of the proposed project. During the booming season, usually April 1 through May 15, dozens of males gather in areas of short cover (including agricultural land), where they defend small territories and advertise to females using elaborate displays and booming sounds. After the mating season ends, the birds disperse and nest in areas of dense, undisturbed cover. We recommend avoiding disturbance to possible nesting habitat April through mid-June to help to minimize disturbance to this rare bird.

- Please visit the DNR Rare Species Guide for more information on the habitat use of these species and recommended measures to avoid or minimize impacts. For further assistance with these species, please contact the appropriate DNR Regional Nongame Specialist or Regional Ecologist.

Federally Protected Species

- The Dakota skipper (*Hesperia dacotae*), a federally-listed threatened and state-listed endangered species, has been documented within/near the project area. The Dakota skipper is a small butterfly found exclusively on remnant native prairie habitats. This rare butterfly is sensitive to several types of artificial and natural disturbances and are almost always absent from remnant prairies that are overgrazed or otherwise degraded. Dakota skipper populations have declined historically due to widespread conversion of native prairie for agriculture and other uses and are now threatened, in part, due to the isolation of remaining populations. Remaining Dakota skipper populations are generally so small and isolated that they are subject to genetic drift, which is likely to further reduce their genetic viability.

  To protect the Dakota skipper and other prairie obligate butterfly species, **it is imperative that the destruction and disturbance of native prairie be avoided**. **Please contact the Endangered**

Species Coordinator, Bridget Henning-Randa (Bridget.Henning-Randa@state.mn.us) if this is not feasible. Given the federal status of this species, I also recommend that you coordinate with the U.S. Fish & Wildlife Service's Twin Cities Field Office (612-725-3548) regarding this project.

- To ensure compliance with federal law, conduct a federal regulatory review using the U.S. Fish and Wildlife Service's (USFWS) online Information for Planning and Consultation (IPaC) tool.

Environmental Review and Permitting

- Please include a copy of this letter and the MCE-generated Final Project Report in any state or local license or permit application. Please note that measures to avoid or minimize disturbance to the above rare features may be included as restrictions or conditions in any required permits or licenses.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location and project description provided with the request. If project details change or the project has not occurred within one year, please resubmit the project for review within one year of initiating project activities.

The Natural Heritage Review does not constitute project approval by the Department of Natural Resources. Instead, it identifies issues regarding known occurrences of rare features and potential impacts to these rare features. Visit the Natural Heritage Review website for additional information regarding this process, survey guidance, and other related information. For information on the environmental review process or other natural resource concerns, you may contact your DNR Regional Environmental Assessment Ecologist.

Thank you for consulting us on this matter and for your interest in preserving Minnesota's rare natural resources.

Sincerely,



James Drake
Natural Heritage Review Specialist
James.F.Drake@state.mn.us

Cc: Owen Baird, Becky Marty

From:	Drake, James F (DNR)
To:	Jessica L. Butler
Subject:	MCE Project 2022-00846; Maple River (ND) to Buffalo River (MN) Switch 69kV Line, Clay County
Date:	Thursday, May 11, 2023 11:26:13 AM
Attachments:	image001.png image002.png image003.png image004.png

CAUTION: This email originated from outside of your organization.

Hello Jessica,

Thank you for calling and discussing the work for this project. After hearing more details about the project site conditions, I agree that the area where work will be performed in the polygon mapped as Mesic Prairie (Northern) referred to in the NH Review letter does not likely have potential habitat for *Orobanche uniflora* and thus a botanical survey is not required.

Jim Drake
he/him
Natural Heritage Review Specialist | Environmental Review Unit
Minnesota Department of Natural Resources
500 Lafayette Road
St. Paul, MN 55155
Phone: 651-259-5017
Email: james.f.drake@state.mn.us
mndnr.gov





Appendix F

Project Scoping

Appendix F Project Scoping

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BARR

September 9, 2022

Manager
U.S. Fish and Wildlife Service
3425 Miriam Ave.
Bismarck, ND 58501

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

The replacement structures are planned to be installed as close to the existing structure location as is possible and structurally safe. The replacement structures would primarily be carried on single (i.e. monopole) wood or ductile iron poles with fiberglass davit arms, toughened glass insulators, and a single shield wire. The proposed monopole structures would be self-supporting (un-guyed) and directly embedded. The structures would have an average height of 65-80 feet with a 350-foot to 400-foot span between structures. The proposed project would occur within the existing HVTL right-of-way. During the course of project development, it was determined that approximately 8 miles of the transmission line would be buried. This portion of the project is located entirely in Minnesota and extends from Section 4, Township 140N, Range 48W to Section 2, Township 140N, Range 47W.

To ensure that all social, economic, and environmental effects are considered in the development of the proposed project, we are soliciting your views and comments on the proposed project pursuant to Section 102(2) (D) (IV) of the National Environmental Policy Act of 1969, as amended. We are particularly interested in any property your department may own or have an interest in that would be adjacent to the proposed project. We would also appreciate being made aware of any proposed developments your department may be contemplating in the areas under consideration for the proposed project. Any information that might help us in our studies would be appreciated. Information or comments relating to environmental or other matters you might furnish will be used to help inform the development of an Environmental Assessment.

It is requested that any comments or information be forwarded to our office on or before October 1, 2022. If no reply is received by this date, it will be assumed that you have no comment on the proposed project. If further information is desired regarding the proposed project, please contact Veronica Parsell at 574.229.8747 or vparsell@barr.com.

Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Mr. Jeff Dion
District Manager
U.S. Fish and Wildlife Service
5924 19th Street SE
Woodworth, ND 58496

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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BARR

September 9, 2022

Manager
Federal Emergency Management Agency
Bldg 710, Box 25267
Denver, ND 80225

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

The replacement structures are planned to be installed as close to the existing structure location as is possible and structurally safe. The replacement structures would primarily be carried on single (i.e. monopole) wood or ductile iron poles with fiberglass davit arms, toughened glass insulators, and a single shield wire. The proposed monopole structures would be self-supporting (un-guyed) and directly embedded. The structures would have an average height of 65-80 feet with a 350-foot to 400-foot span between structures. The proposed project would occur within the existing HVTL right-of-way. During the course of project development, it was determined that approximately 8 miles of the transmission line would be buried. This portion of the project is located entirely in Minnesota and extends from Section 4, Township 140N, Range 48W to Section 2, Township 140N, Range 47W.

To ensure that all social, economic, and environmental effects are considered in the development of the proposed project, we are soliciting your views and comments on the proposed project pursuant to Section 102(2) (D) (IV) of the National Environmental Policy Act of 1969, as amended. We are particularly interested in any property your department may own or have an interest in that would be adjacent to the proposed project. We would also appreciate being made aware of any proposed developments your department may be contemplating in the areas under consideration for the proposed project. Any information that might help us in our studies would be appreciated. Information or comments relating to environmental or other matters you might furnish will be used to help inform the development of an Environmental Assessment.

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Alex Smith
Economic Development Representative
U.S. Dept of Commerce
1244 Speer Blvd., Suite 431
Denver, ND 80204

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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BARR

September 9, 2022

Mr. Wade Bott
ND State Soil Scientist
U.S. Department of Agriculture - Natural Resources Conservation Service
PO Box 1458
Bismarck, ND 58502-1458

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

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To ensure that all social, economic, and environmental effects are considered in the development of the proposed project, we are soliciting your views and comments on the proposed project pursuant to Section 102(2) (D) (IV) of the National Environmental Policy Act of 1969, as amended. We are particularly interested in any property your department may own or have an interest in that would be adjacent to the proposed project. We would also appreciate being made aware of any proposed developments your department may be contemplating in the areas under consideration for the proposed project. Any information that might help us in our studies would be appreciated. Information or comments relating to environmental or other matters you might furnish will be used to help inform the development of an Environmental Assessment.

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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BARR

September 9, 2022

U.S. EPA Region 8
1595 Wynkoop Street
Denver, 80202-1129

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

The replacement structures are planned to be installed as close to the existing structure location as is possible and structurally safe. The replacement structures would primarily be carried on single (i.e. monopole) wood or ductile iron poles with fiberglass davit arms, toughened glass insulators, and a single shield wire. The proposed monopole structures would be self-supporting (un-guyed) and directly embedded. The structures would have an average height of 65-80 feet with a 350-foot to 400-foot span between structures. The proposed project would occur within the existing HVTL right-of-way. During the course of project development, it was determined that approximately 8 miles of the transmission line would be buried. This portion of the project is located entirely in Minnesota and extends from Section 4, Township 140N, Range 48W to Section 2, Township 140N, Range 47W.

To ensure that all social, economic, and environmental effects are considered in the development of the proposed project, we are soliciting your views and comments on the proposed project pursuant to Section 102(2) (D) (IV) of the National Environmental Policy Act of 1969, as amended. We are particularly interested in any property your department may own or have an interest in that would be adjacent to the proposed project. We would also appreciate being made aware of any proposed developments your department may be contemplating in the areas under consideration for the proposed project. Any information that might help us in our studies would be appreciated. Information or comments relating to environmental or other matters you might furnish will be used to help inform the development of an Environmental Assessment.

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Mr. Greg Link
Chief
North Dakota Game and Fish Department
100 North Bismarck Expressway
Bismarck, ND 58501

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

The replacement structures are planned to be installed as close to the existing structure location as is possible and structurally safe. The replacement structures would primarily be carried on single (i.e. monopole) wood or ductile iron poles with fiberglass davit arms, toughened glass insulators, and a single shield wire. The proposed monopole structures would be self-supporting (un-guyed) and directly embedded. The structures would have an average height of 65-80 feet with a 350-foot to 400-foot span between structures. The proposed project would occur within the existing HVTL right-of-way. During the course of project development, it was determined that approximately 8 miles of the transmission line would be buried. This portion of the project is located entirely in Minnesota and extends from Section 4, Township 140N, Range 48W to Section 2, Township 140N, Range 47W.

To ensure that all social, economic, and environmental effects are considered in the development of the proposed project, we are soliciting your views and comments on the proposed project pursuant to Section 102(2) (D) (IV) of the National Environmental Policy Act of 1969, as amended. We are particularly interested in any property your department may own or have an interest in that would be adjacent to the proposed project. We would also appreciate being made aware of any proposed developments your department may be contemplating in the areas under consideration for the proposed project. Any information that might help us in our studies would be appreciated. Information or comments relating to environmental or other matters you might furnish will be used to help inform the development of an Environmental Assessment.

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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BARR

September 9, 2022

Mr. David Glatt
Director
North Dakota Department of Environmental Quality
918 East Divide Ave.
Bismarck, ND 58501-1947

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

The replacement structures are planned to be installed as close to the existing structure location as is possible and structurally safe. The replacement structures would primarily be carried on single (i.e. monopole) wood or ductile iron poles with fiberglass davit arms, toughened glass insulators, and a single shield wire. The proposed monopole structures would be self-supporting (un-guyed) and directly embedded. The structures would have an average height of 65-80 feet with a 350-foot to 400-foot span between structures. The proposed project would occur within the existing HVTL right-of-way. During the course of project development, it was determined that approximately 8 miles of the transmission line would be buried. This portion of the project is located entirely in Minnesota and extends from Section 4, Township 140N, Range 48W to Section 2, Township 140N, Range 47W.

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Sincerely,



Veronica Parsell

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BARR

September 9, 2022

Mr. Chad Orn
Director of Project Development
North Dakota Department of Transportation
608 East Boulevard Avenue
Bismarck, ND 58505-0700

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

The replacement structures are planned to be installed as close to the existing structure location as is possible and structurally safe. The replacement structures would primarily be carried on single (i.e. monopole) wood or ductile iron poles with fiberglass davit arms, toughened glass insulators, and a single shield wire. The proposed monopole structures would be self-supporting (un-guyed) and directly embedded. The structures would have an average height of 65-80 feet with a 350-foot to 400-foot span between structures. The proposed project would occur within the existing HVTL right-of-way. During the course of project development, it was determined that approximately 8 miles of the transmission line would be buried. This portion of the project is located entirely in Minnesota and extends from Section 4, Township 140N, Range 48W to Section 2, Township 140N, Range 47W.

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Sincerely,



Veronica Parsell

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September 9, 2022

Mr. John Paczkowski
Interim State Engineer
North Dakota State Water Commission
900 East Boulevard Ave
Bismarck, ND 58505

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

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September 9, 2022

Mr. Bill Peterson
Director
North Dakota State Historical Society
612 East Boulevard Avenue
Bismarck, ND 58505-0830

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

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September 9, 2022

Ms. Patricia McQueary
State Program Manager
U.S. Army Corps of Engineers North Dakota Regulatory Office
3319 University Drive
Bismarck, ND 58504

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

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September 9, 2022

Mr. Scott Davis
Executive Director
Indian Affairs Commission
600 E. Blvd. Ave.
1st Floor, Judicial Wing, Rm 117
Bismarck, ND 58505-0830

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Mr. Edward Murphy
State Geologist
North Dakota Geological Survey
600 E. Blvd Ave.
Bismarck, ND 58505-0840

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Ms. Kathy Duttenhefner
Natural Heritage Program Coordinator
North Dakota Parks and Recreation Department
1600 East Century Avenue, Suite 3
Bismarck, ND 58503

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

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September 9, 2022

Mr. Steven Hofstad
Wetland Specialist
Minnesota Board of Water and Soil Resources
1732 North Tower Road
Detroit Lakes, MN 56501

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Ms. Theresa Ebbenga
Regional Director
Minnesota Department of Natural Resources, Northwest Regional Headquarters
2115 Birchmont Beach Rd NE
Bemidji, MN 56601

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

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September 9, 2022

Mr. Chris McNulty
Commissioner's Office
Minnesota Department of Agriculture
625 Robert Street North
Saint Paul, MN 55155-2538

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

The replacement structures are planned to be installed as close to the existing structure location as is possible and structurally safe. The replacement structures would primarily be carried on single (i.e. monopole) wood or ductile iron poles with fiberglass davit arms, toughened glass insulators, and a single shield wire. The proposed monopole structures would be self-supporting (un-guyed) and directly embedded. The structures would have an average height of 65-80 feet with a 350-foot to 400-foot span between structures. The proposed project would occur within the existing HVTL right-of-way. During the course of project development, it was determined that approximately 8 miles of the transmission line would be buried. This portion of the project is located entirely in Minnesota and extends from Section 4, Township 140N, Range 48W to Section 2, Township 140N, Range 47W.

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Sincerely,



Veronica Parsell

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September 9, 2022

Mr. Tom Hogan
Division Director
Minnesota Department of Health
P.O. Box 64975
Saint Paul, MN 55164

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

The replacement structures are planned to be installed as close to the existing structure location as is possible and structurally safe. The replacement structures would primarily be carried on single (i.e. monopole) wood or ductile iron poles with fiberglass davit arms, toughened glass insulators, and a single shield wire. The proposed monopole structures would be self-supporting (un-guyed) and directly embedded. The structures would have an average height of 65-80 feet with a 350-foot to 400-foot span between structures. The proposed project would occur within the existing HVTL right-of-way. During the course of project development, it was determined that approximately 8 miles of the transmission line would be buried. This portion of the project is located entirely in Minnesota and extends from Section 4, Township 140N, Range 48W to Section 2, Township 140N, Range 47W.

To ensure that all social, economic, and environmental effects are considered in the development of the proposed project, we are soliciting your views and comments on the proposed project pursuant to Section 102(2) (D) (IV) of the National Environmental Policy Act of 1969, as amended. We are particularly interested in any property your department may own or have an interest in that would be adjacent to the proposed project. We would also appreciate being made aware of any proposed developments your department may be contemplating in the areas under consideration for the proposed project. Any information that might help us in our studies would be appreciated. Information or comments relating to environmental or other matters you might furnish will be used to help inform the development of an Environmental Assessment.

It is requested that any comments or information be forwarded to our office on or before October 1, 2022. If no reply is received by this date, it will be assumed that you have no comment on the proposed project. If further information is desired regarding the proposed project, please contact Veronica Parsell at 574.229.8747 or vparsell@barr.com.

Sincerely,



Veronica Parsell

Enclosure (Location Map)

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BARR

September 9, 2022

Ms. Katherine Lind
Environmental Review Team
Minnesota Department of Transportation
395 John Ireland Boulevard, MS 620
Saint Paul, MN 55155

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Ms. Shannon Geshick
Executive Director
Minnesota Indian Affairs Council
1819 Bemidji Ave N, Ste 2
Bemidji, MN 56601

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Minnesota Office of Attorney General
445 Minnesota Street, Suite 1400
Saint Paul, MN 55101-2131

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Manager
Minnesota Pollution Control Agency
714 Lake Ave., Suite 220
Detroit Lakes, MN 56501

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Ms. Sarah Beimers
Environmental Review Program Manager
Minnesota State Historic Preservation Office
Administration Building #203
50 Sherburne Ave.
St. Paul, MN 55155

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

U.S. Army Corps of Engineers Minnesota Regulatory Office
10867 East Gull Lake Drive NW
Brainerd, MN 56401

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Mr. Joseph Brennan
MN State Soil Scientist
U.S. Department of Agriculture - Natural Resources Conservation Service
375 Jackson Street, Suite 600
St. Paul, MN 55101

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Regional Director
U.S. Fish and Wildlife Service Region 3
5600 American Blvd. West, Suite 990
Bloomington, MN 55437-1458

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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BARR

September 9, 2022

U.S. EPA Region 5
77 West Jackson Blvd.
Chicago, MN 60604

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

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September 9, 2022

Mr. Alan Fogarty
Superintendent
U.S. Department of Interior, Bureau of Indian Affairs, Midwest Office
2225 Cooperative Court NW, Room 300
Bemidji, MN 56601

PROJECT NAME: Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment

Minnkota Power Cooperative, Inc. (Minnkota) is proposing to replace aging, 1940's era TPS-1 wood transmission line structures on approximately 25.5 total miles of existing 69 kV high voltage transmission line (HVTL). The proposed project runs from Minnkota's Maple River substation in Cass County, North Dakota to the Buffalo River substation in Clay County, Minnesota (Figure 1).

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Sincerely,



Veronica Parsell

Enclosure (Location Map)

Veronica A. Parsell

From: Coburn, Leslie (ADM) <leslie.coburn@state.mn.us>
Sent: Monday, September 12, 2022 11:44 AM
To: Veronica A. Parsell
Subject: RE: Maple River-Buffalo River 69 kV line rebuild - SHPO Review Request

CAUTION: This email originated from outside of your organization.

Thanks, this is really helpful. We'll wait to give comments until after we've reviewed the Phase I survey.

Thanks
Leslie

DEPARTMENT OF ADMINISTRATION
STATE HISTORIC PRESERVATION OFFICE

Leslie Coburn, AICP (she/her) **| Environmental Review Specialist**
50 Sherburne Avenue, Suite 203
Saint Paul, MN 55155
(651) 201-3286
leslie.coburn@state.mn.us

Registration is now open for the Preserve Minnesota Annual Conference!

Please subscribe to receive SHPO notices for the most current updates regarding office hours, accessing research files, or changes in submitting materials to the SHPO.

To submit projects to SHPO for review, use ENReviewSHPO@state.mn.us .

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From: Veronica A. Parsell <VParsell@barr.com>
Sent: Monday, September 12, 2022 11:40 AM
To: Coburn, Leslie (ADM) <leslie.coburn@state.mn.us>
Subject: RE: Maple River-Buffalo River 69 kV line rebuild - SHPO Review Request

This message may be from an external email source.
Do not select links or open attachments unless verified. Report all suspicious emails to Minnesota IT Services Security Operations Center.

Hi Leslie,

Apologies for any confusion. The project will be receiving funding from the USDA-RUS and a Section 106 undertaking. Minnkota previously coordinated with your office regarding the project; the SHPO number is 2022-0914. However, subsequent to that coordination project plans changed, and a portion of transmission line (approximately 8 miles) will now be buried underground. Minnkota is planning to complete a Phase I Archaeological Reconnaissance for this portion of the line; however, we would appreciate any comments SHPO might have regarding the project. Please let me know if I can provide any additional information.

Sincerely,

Veronica

Veronica A. Parsell
She/her/hers

Senior Cultural Resources Specialist
Minneapolis, MN office: 952.832.2623
VParsell@barr.com
www.barr.com



If you no longer wish to receive marketing e-mails from Barr, respond to communications@barr.com and we will be happy to honor your request.

From: Coburn, Leslie (ADM) <leslie.coburn@state.mn.us>
Sent: Monday, September 12, 2022 11:30 AM
To: Veronica A. Parsell <VParsell@barr.com>
Subject: Maple River-Buffalo River 69 kV line rebuild - SHPO Review Request

CAUTION: This email originated from outside of your organization.

Hello, Ms. Parsell—We received your project review request dated 9/9/2022 for this project. You requested ou comments under NEPA. We don't review projects under NEPA. Please let us know if there is a state or federal agency that is funding or permitting this project that requires a Section 106 review under the National Historic Preservation Act or review under a state preservation law, and let us know which agency.

Thanks,
Leslie



Leslie Coburn, AICP (she/her) **| Environmental Review Specialist**
50 Sherburne Avenue, Suite 203
Saint Paul, MN 55155
(651) 201-3286
leslie.coburn@state.mn.us

Registration is now open for the Preserve Minnesota Annual Conference!

Please subscribe to receive SHPO notices for the most current updates regarding office hours, accessing research files, or changes in submitting materials to the SHPO.

To submit projects to SHPO for review, use ENReviewSHPO@state.mn.us .

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Veronica A. Parsell

From: Tompkins, Kurt <kurt_tompkins@fws.gov>
Sent: Wednesday, September 14, 2022 2:45 PM
To: Veronica A. Parsell
Subject: Maple River (ND) - Buffalo River (MN) Switch 69·kV Line Rebuild Project

CAUTION: This email originated from outside of your organization.

Hi, Veronica.

I received a copy of the September 9, 2022 letter you addressed to Jeff Dion at our Woodworth, ND office.

We manage US Fish and Wildlife Service (Service) property interests in Cass County from my office.

The Service has no property interests adjacent to the subject project area.

Please let me know if you have any questions or need anything else from me.

Thanks,

Kurt Tompkins
District Manager
US Fish and Wildlife Service
Valley City Wetland Management District
11515 River Road
Valley City, ND 58072
O - 701-845-3466
C - 701-840-3128
F - 701-845-3482
http://www.fws.gov/refuge/valley_city_wmd/

Veronica A. Parsell

From: Anderson, Fred J. <fjanderson@nd.gov>
Sent: Thursday, September 15, 2022 2:45 PM
To: Veronica A. Parsell
Subject: NDGS Comments: Maple River (ND) - Buffalo River (MN) Switch 69 kV Line Rebuild Project Environmental Assessment Comment Solicitation Letter

CAUTION: This email originated from outside of your organization.

Dear Ms. Parsell-

We reviewed your comment solicitation letter of September 9, 2022 this afternoon and would provide the following comments:

In the North Dakota portion of the project area we have mapped slumping riverbanks along the Red River.

Also, to note that the soft and expansive clays of the Brenna Formation occur at shallow depths in this area around 25-ft bls and can be up to 80-ft in thickness based on local well records.

Our landslide, LiDAR, and geologic maps and data sets for this project area can be found here: North Dakota Geological Survey (nd.gov)

Please feel free to contact our offices if there are any additional questions or information needs.

Regards,

Fred J. Anderson
Geologist, North Dakota Geological Survey

701.328.8000 (Survey Main Office) • 701.328.8037 (Office Direct) • fjanderson@nd.gov • www.dmr.nd.gov/ndgs

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701.328.8020 (Front Office) • oilandgasinfo@nd.gov • www.dmr.nd.gov • 600 E Boulevard Ave, Dept. 405 • Bismarck, ND 58505

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Dakota Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501

In reply, please refer to:
Maple River-Buffalo River Switch EA

September 15, 2022

Veronica Parsell
Barr Engineer Co.
234 West Century Avenue
Bismarck, North Dakota 58503

Dear Veronica:

Thank you for your email from September 9, 2022, requesting comments on the Maple River-Buffalo River switch 69 kV line rebuild project Environmental Assessment. The U.S. Fish and Wildlife Service (Service) has the following comments.

Section 7 of the Endangered Species Act

Section 7 of the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 *et seq.*) 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 Service *if they determine their project and associated actions "may affect" listed species or critical habitat*. If Federal agencies or their non-federal representatives determine their project and associated actions will have "no effect" on listed species, their habitats, or designated critical habitat, consultation is not required. However, if a "no effect" is determined, we recommend that you maintain a written record in support of your conclusion.

Consultations on IPaC

We invite you to use a new tool the Service has designed to help with the consultation process – the Information for Planning and Consultation (IPaC) database (http://ecos.fws.gov/ipac). The database provides guidance to help you determine where your action area is, whether endangered species may be found within the action area, and if your project and associated actions may affect listed species. Additionally, the North Dakota Ecological Services webpage (https://www.fws.gov/office/north-dakota-ecological-services/library) contains step-by-step guidance for navigating IPaC and determination keys that you may choose to use.

Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act

Additionally, while not all are listed as threatened or endangered, eagles and migratory birds have protections under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). The BGEPA prohibits take which is defined as, "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb" (50 CFR 22.3). Disturb is defined in regulations as, "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.". The MBTA makes it unlawful without a waiver to pursue, hunt, take, capture, kill, or sell birds listed as migratory birds, including eagles. The statute does not discriminate between live or dead birds and also grants full protection to any bird parts including feathers, eggs, and nests.

Service Property Interests

As part of the National Wildlife Refuge System, the Service administers fee title Refuge and Waterfowl Production Areas, as well as wetland and grassland easements, throughout North Dakota. For exact locations of Service interest lands, please contact the appropriate Wetland Management Districts (WMD) for guidance regarding FWS easements.

Northwest ND WMD Complex: Kyle Flanery, (701) 768-2548
Eastern ND WMD Complex: Dave Azure, (701) 285-3341
Central ND WMD Complex (also covers south and west): Todd Luke, (701) 442-5474

Conclusion

These comments provide technical assistance only and do not constitute the report of the Secretary of the Interior on the project within the meaning of Section 2(b) of the Fish and Wildlife Coordination Act, do not fulfill the requirements under the Endangered Species Act, the Bald and Golden Eagle Protection Act, or the Migratory Bird Treaty Act, nor do they represent the review comments of the U.S. Department of the Interior on any forthcoming environmental statement. Thank you for the opportunity to provide comments early in the planning process. If you have any additional questions or concerns, please contact Lauren Toivonen of my staff at (701) 202-6754 or via email at lauren_toivonen@fws.gov or contact me at (701) 355-8512 or drew_becker@fws.gov.

Sincerely,

Drew N. Becker
North Dakota Field Office Supervisor

Ecological and Water Resources
2115 Birchmont Beach Rd NE
Bemidji, MN 56601

September 21, 2022

Environmental Assessment, Maple River – Buffalo River Rebuild Project

Veronica Parsell,

Minnesota Department of Natural Resources (MDNR) has reviewed the materials provided in a letter dated September 9, 2022, for the Maple River-Buffalo River Switch 69 kV line rebuild project in preparation for an Environmental Assessment (EA). Below are our recommendations to minimize impacts to natural resources and outdoor public recreation.

General comments

The EA should discuss disposal or wasting of the back dirt resulting from the excavation of the footings.

The EA should describe the functions provided by the project area wetlands and how impacts associated with pole placement (fill placement and type conversion) and maintenance will change those functions. Specific mitigation proposed by the applicant and/or required by laws should also be included in the assessment.

The EA should identify and discuss the impacts associated with additional work areas (e.g., marshaling yards) on or adjacent to the ROW that may be needed for construction, storage, or staging of materials.

Specific Scoping Comments

Substations

If there are any substations planned, the EA should assess the potential for impacts and assess the need for mitigation measures, including:

- Shielded and downward facing lighting that is also placed below tree height. In addition, LED lighting is often high in blue-light, which is harmful to birds, insects, and fish. Require LED lighting that minimizes blue hue.

- In absence of tall vegetation for screening, require the use of fencing that blends with the surrounding landscape in color and material.

Natural Vegetation

The EA should describe the ecological setting of the project using the Ecological Classification System (ECS) to the Land Type Association level. The ECS should be used to inform the environmental setting description in the EA.

Consider reviewing actions that benefit the Monarch Butterfly and other pollinators. For specific actions reference the Conservation Actions for Electric Power Companies to Support Monarch Butterflies (EPRI, 2019).

Wildlife/Rare and Unique Natural Features

A Natural Heritage Review should be conducted. Please note that all requests for a Natural Heritage Review letters should now be submitted through the Minnesota Conservation Explorer (MCE). The results of a MCE submittal and any recommendations should be included in the EA.

The EA should attempt to identify potential impacts to all significant fish and wildlife resources on or near the site. Descriptions of measures to avoid or minimize adverse impacts to these wildlife resources and any unique or rare features should also be included in the EA.

Public Waters

The EA should describe short and long-term impacts of crossing public waters and what measures would be taken to mitigate such impacts. DNR recommends that neck downs in clearing widths as well as preservation and maintenance of woody buffers be adopted as an overall mitigation strategy.

There are five crossing in the planned project area:

- Red River (H-026)
- Buffalo River (H-026-056)
- Unnamed Creek (H-026-057)
- Unnamed Creed (H-026-056-005)
- Unnamed Creek (a H-026-056-005-001)

Avian Collision Risk

The EA should assess the risk for avian collision with powerlines and associated structures and the need for measures to mitigate avian mortality to due collision with HVTL's. Periods of inclement weather and foggy conditions associated with lakes, water courses and wetlands increase collision risk.

1. Use of line markers – Note that these devices tend to be less effective in inclement weather.
2. Underground construction.

3. Pole designs (e.g., H-frame vs. single pole) – Use of an H-frame structure or pole designs that minimize the number of vertical wires should be assessed for practicability.

A description of potential impacts (estimates of annual mortality), specific avoidance, minimization, and mitigation measures for bird flyway and concentration areas should specifically be included in the EA. See Public Waters section above in addition to National Wetlands Inventory wetlands for guidance on high risk areas.

MDNR Land and Water Crossing Licenses

Licenses are needed to cross state administered lands and public waters. The review and issuance of DNR land and water crossing licenses are coordinated by the Division of Lands and Minerals. Contact the Lands and Minerals Realty Specialist in the NW Region is Pamela Arndt (218-308-2683; pamela.arndt@state.mn.us). Contact Pamela if you have any questions on the information needs or any other guidance for completing the land or water crossing applications in the NW region. Note that three Wildlife Management Areas (WMAs) are adjacent to this project (Flowing Prairie WMA, Jeral WMA and Cromwell WMA). The project proposer should allow adequate time for review and modification of the license applications after the completion of environmental review.

Thank you for consideration of these comments. If you have any further questions regarding these recommendations, please contact me.

Sincerely,



Christine Herwig
Assistant Regional Manager, Ecological and Water Resources – Northwest Region

CC: Pamela Arndt, NW Realty Specialist Senior
Robert Baden, Area Wildlife Supervisor – Detroit Lakes

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USDA
United States Department of Agriculture

Natural Resources
Conservation Service

Bismarck State Office
PO Box 1458
Bismarck, ND
58502-1458

Voice 701.530.2000
Fax 855-813-7556

September 21, 2022

Veronica Parsell
Barr Engineering Company
234 West Century Avenue
Bismarck, ND 58503

Dear Ms. Parsell:

The Natural Resources Conservation Service (NRCS) has reviewed your letter dated September 9, 2022 concerning Minnkota Power Cooperative's Maple River (ND) to Buffalo River (MN) Switch 69 kV Line Rebuild Project.

NRCS has a major responsibility with the Farmland Protection Policy Act (FPPA) in documenting conversion of farmland (i.e., Prime, Statewide Importance and/or Local Importance) to non-agricultural use when federal funds are utilized. Your project includes replacing 8 miles of overhead line and poles by burying new electrical line which does not remove farmland from production. The remaining structures in the project will be replaced with new structures which will be placed as close to the existing ones as possible. This action will not remove additional farmland from production, therefore; FPPA does not apply to this project, and no further action is needed.

If you have additional questions pertaining to FPPA, please contact Wade Bott, State Soil Scientist, NRCS, Bismarck, North Dakota, at (701) 530-2021.

WADE BOTT Digitally signed by WADE BOTT
Date: 2022.09.21 09:33:42 -05'00'

WADE D. BOTT
State Soil Scientist

Veronica A. Parsell

From: Schroeder, Scott T (MPCA) <scott.t.schroeder@state.mn.us>
Sent: Friday, September 30, 2022 3:14 PM
To: Veronica A. Parsell
Cc: King, Matthew (MPCA); Getman, Roberta (MPCA)
Subject: Minnkota High-Voltage Rebuild Project Notification
Attachments: Minnkota High-Voltage Rebuild Project Notification.pdf

CAUTION: This email originated from outside of your organization.

Good afternoon,

The Minnesota Pollution Control Agency (MPCA) office in Detroit Lakes, MN received the attached notification for the Minnkota high voltage power line replacement project. The notification requests views and comments on any social, economic, and environmental effects of the project, and states that any information or comments relating to environmental matters will be used to help inform the development of an Environmental Assessment.

The notification explains that the replacement transmission line structures will be self-supporting, directly embedded, and having a 350-foot to 400-foot span between them, and that approximately 8 miles of the replacement line will be buried. MPCA staff from the watershed and construction stormwater units in the Detroit Lakes office request that the Environmental Assessment fully explains project construction activities, including but not limited to the following:

- Please explain how the replacement structures will be constructed near surface waters and wetlands or how the replacement line will be constructed to completely span all applicable surface waters or wetlands. If structures must be constructed near or within surface waters or wetlands, explain if and how construction best management practices will be used to ensure that no sediment runoff or other adverse effects from construction activities will impact the surface waters or wetlands.
- Please explain how the approximately 8 miles of buried transmission line will be constructed near surface waters and wetlands. The buried portion of the transmission line will cross under the Buffalo River in Section 1, T140N R48W, and will run adjacent to and alongside County Ditch 25 for approximately 5-6 miles. Therefore, please explain if and how construction best management practices will be used to ensure that no adverse effects from these construction activities will impact the adjacent surface waters or wetlands. The Buffalo River is listed on Minnesota's 303(d) Impaired Waters List due to excess turbidity (as well as excess *Escherichia coli* bacteria and mercury in fish tissue). County Ditch 25, while it is a straight line ditch, is also listed as impaired as it does not support healthy fish and macroinvertebrate communities.
- Please determine and explain if a Construction Stormwater Permit must be obtained from the MPCA prior to construction. In general, permit coverage is needed for any construction project disturbing one or more acre of soil, or less than one acre of soil if that activity is part of a larger "common plan of development or sale" that covers more than one acre. For more information on construction stormwater permit coverage please contact Roberta Getman, copied on this email, or visit https://www.pca.state.mn.us/business-with-us/construction-stormwater.
    - If construction stormwater permit coverage is required, note that section 23.7 of the permit has additional requirements for projects that discharge to impaired waters. For this project, this would include any potential stormwater discharges to the Buffalo River (turbidity) and County Ditch 25 (aquatic biota), noted above, as well as the Red River of the North (turbidity).

Thank you for the opportunity to review and provide comments and information. If you have questions regarding watershed or impaired waters, please contact me by email or at 218-846-8134. If you have questions regarding construction stormwater requirements, please contact Roberta Getman by email or at 507-206-2629.

Scott Schroeder | Environmental Specialist
Minnesota Pollution Control Agency (MPCA)
Northwest Watershed Unit | Watershed Division
714 Lake Avenue, Suite 220 | Detroit Lakes, MN | 56501
Direct: 218-846-8134 | Office Main: 218-847-1519
scott.t.schroeder@state.mn.us | www.pca.state.mn.us

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September 30, 2022

Veronica Parsell
Barr Engineering Co.
234 West Century Avenue
Bismarck, ND 58503

Dear Ms. Parsell:

RE: Maple River (ND) – Buffalo River (MN) Switch 69-kV Line Rebuild Project

The North Dakota Game and Fish Department has reviewed this project for wildlife concerns.

The transmission line will cross the Red River, a Class I fishery resource. Construction activities, if necessary within waterway, should not take place between April 15 and July 1 to protect the resource, and controls should be implemented to minimize possible erosion and sedimentation. We ask that steps be taken to protect any wetlands that cannot be avoided, no alterations be made to existing drainage patterns, and above-ground appurtenances not be placed in wetland areas. Unavoidable destruction or degradation of wetland acres should be mitigated in kind.

Aquatic nuisance species (ANS) are a major concern in North Dakota. State law requires that the contractor, including any and all subcontractors involved in this project, take appropriate precautions to prevent the introduction or movement of ANS within the state. The contractor should provide the Department a reasonable opportunity to inspect any equipment prior to these items being launched or placed into waters of the state. The Department's Aquatic Nuisance Species Coordinator, Mr. Benjamin Holen, can be contacted at 701-368-9117 for equipment inspections or additional information regarding ANS prevention protocols.

We recommend that overhead lines be marked when placed over perennial streams or sited in close proximity to large wetland complexes to minimize possible avian impacts. The publication "Reducing Avian Collisions with Power Lines: the State of the Art in 2012" provides a range of management options which can be used to reduce avian losses.

Our records indicate a bald eagle nest located within one mile of the proposed project corridor. We suggest that aerial surveys be conducted for raptor nests before construction begins, and request that a ½-mile construction buffer be implemented around active eagle nest sites (known occupied within the past 5 years). Ms. Sandra Johnson, Conservation Biologist, may be contacted at 701-328-6327 for additional information on eagle nest sites in the state.

Governor Doug Burgum | Director Jeb Williams | Deputy Director Scott A. Peterson

100 North Bismarck Expressway | Bismarck ND, 58501-5095 | 701-328-6300 | Fax: 701-328-6352

We do not believe this project will have significant adverse effects on wildlife or wildlife habitat provided these recommendations are implemented where appropriate.

Sincerely,

(for)

Greg Link
Chief
Conservation & Communications Division

js

NORTH Dakota | Water Resources

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October 12, 2022

Veronica Parsell
Barr Engineering
234 W Century Avenue
Bismarck, ND 58503

Dear Ms. Parsell:

This is in response to your request for a review of the environmental impacts associated the Maple River (ND) – Buffalo River (MN) Switch 69 kV Line Rebuild Project.

The proposed project has been reviewed by Department of Water Resources, and the following comments are provided:

- For the North Dakota portion of the project in Cass County, there are FEMA National Flood Insurance Program (NFIP) regulatory floodplains and floodways identified or mapped where this proposed project is to take place. Impacted areas are designated to be in NFIP Zone AE. North Dakota has no formal NFIP permitting authority, as all NFIP permitting decisions are considered by impacted NFIP participating communities, which is the community with zoning authority for the area(s) in question. Please work directly with the local floodplain administrators of the zoning authorities impacted to achieve NFIP compliance.

- Initial review indicates the project does not require a conditional or temporary permit for water appropriation. However, if surface water or groundwater will be diverted for construction of the project, a water permit will be required per North Dakota Century Code § 61-04-02. Please consult with the Department of Water Resources Water Appropriation Division if you have any questions at (701) 328-2754 or appropinfo@nd.gov.

- The Department of Water Resources maintains a network of observation wells across the state for monitoring the water levels and quality in glacial and bedrock aquifers. These wells are often installed in road and highway rights-of-way to limit inconvenience to the adjacent landowners. Department of Water Resources observation wells have a yellow protective casing extending between 1 and 3 feet above ground surface, and their locations are marked with a stake. If an observation well is encountered during project activities and must be removed, please contact the Water Appropriation Division. The Department of Water Resources hopes to keep all observation wells, but otherwise will ensure the well is properly abandoned.

Thank you for the opportunity to provide review comments. Should you have further questions, please contact me at 701-328-4970 or stevebest@nd.gov.

Sincerely,

Steven Best
Planner III

SB:dm/1570

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October 6, 2022

Veronica Parsell
Barr Engineering
234 West Century Avenue
Bismarck, ND 58503

MAPLE RIVER (ND) – BUFFALO RIVER (MN) SWITCH 69KV LINE REBUILD PROJECT
ENVIRONMENTAL ASSESSMENT, CASS COUNTY, NORTH DAKOTA

We have reviewed your September 9, 2022, letter.

This project should have no adverse effect on the North Dakota Department of Transportation highways.

However, if because of this project any work needs to be done on highway right of way, appropriate permits and risk management documents will need to be obtained from the Department of Transportation District Engineer, Robert Walton at 701-239-8903.

CHAD M. ORN, P.E., DIRECTOR – OFFICE OF PROJECT DEVELOPMENT

57/cmo/js
c: Robert Walton, Fargo District Engineer

October 13, 2022

Veronica Parsell
Barr Engineering Co.
234 West Century Ave.
Bismarck, ND 58503

Re: Buffalo River Switch 69 kV Line Rebuild Project

Dear Veronica Parsell,

The Natural Resources Conservation Service (NRCS) has reviewed the above referenced project. Our review has found that one USDA easement may be impacted, see attached map. Contact Kaitlyn Miller, kaitlyn.miller@usda.gov, 651-602-7855, for additional information pertaining to this easement.

Additionally, the project sponsors are not USDA program benefit recipients, thus the wetland conservation provisions of the 1985 Food Security act, as amended are not applicable. It should be noted, however, that actions by a non-USDA participant third party (project sponsor) which impact agricultural wetlands owned or operated by USDA participants, may jeopardize the owner/operators USDA eligibility. If such impacts are anticipated, the owner/operator should contact the county Farm Service Agency (FSA) office to consider an application for a third-party exemption.

The following agencies may have federal or state wetlands, floodplain delineation, cultural resources, water quality, air quality or threatened and endangered species jurisdiction in the proposed project and should be consulted.

- Army Corps of Engineers (USACOE) – Clean Water Act
- US Fish and Wildlife Service (FWS) – Endangered Species Act
- Board of Water and Soil Resources (BWSR) - Minnesota Wetlands Conservation Act
- Minnesota Department of Natural Resources (MDNR)
- Minnesota Pollution Control Agency (MPCA)
- State Historic Preservation Officer/State Archaeologist (SHPO)

Finally, if as a result of your proposal you are affecting agricultural lands, and if any federal monies are involved, it is a requirement that a Farmland Policy Protection Act (FPPA) site assessment be appropriately filed. To determine if the proposed undertaking is exempt from the Farmland Protection Policy Act (FPPA) call or email Joseph Brennan, State Soil Scientist, (651) 602-7925 or joseph.brennan@usda.gov. If the undertaking is not exempt, please fill out your agency's portion Form AD-1006 or NRCS-CPA-106 (corridor projects) and submit it along with other supporting information.

The current versions of the above FPPA forms are available online:
https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/

Sincerely,

RYAN GALBREATH
Environmental Review and Justice Program

cc:
Kaitlyn Miller, Easement Program Manager, NRCS, St. Paul, MN

Subject/Title: Maple River (ND) -Buffalo River (MN) Switch 69 kV Line Rebuild Project

County: Clay, MN (27027)

Ownership: %

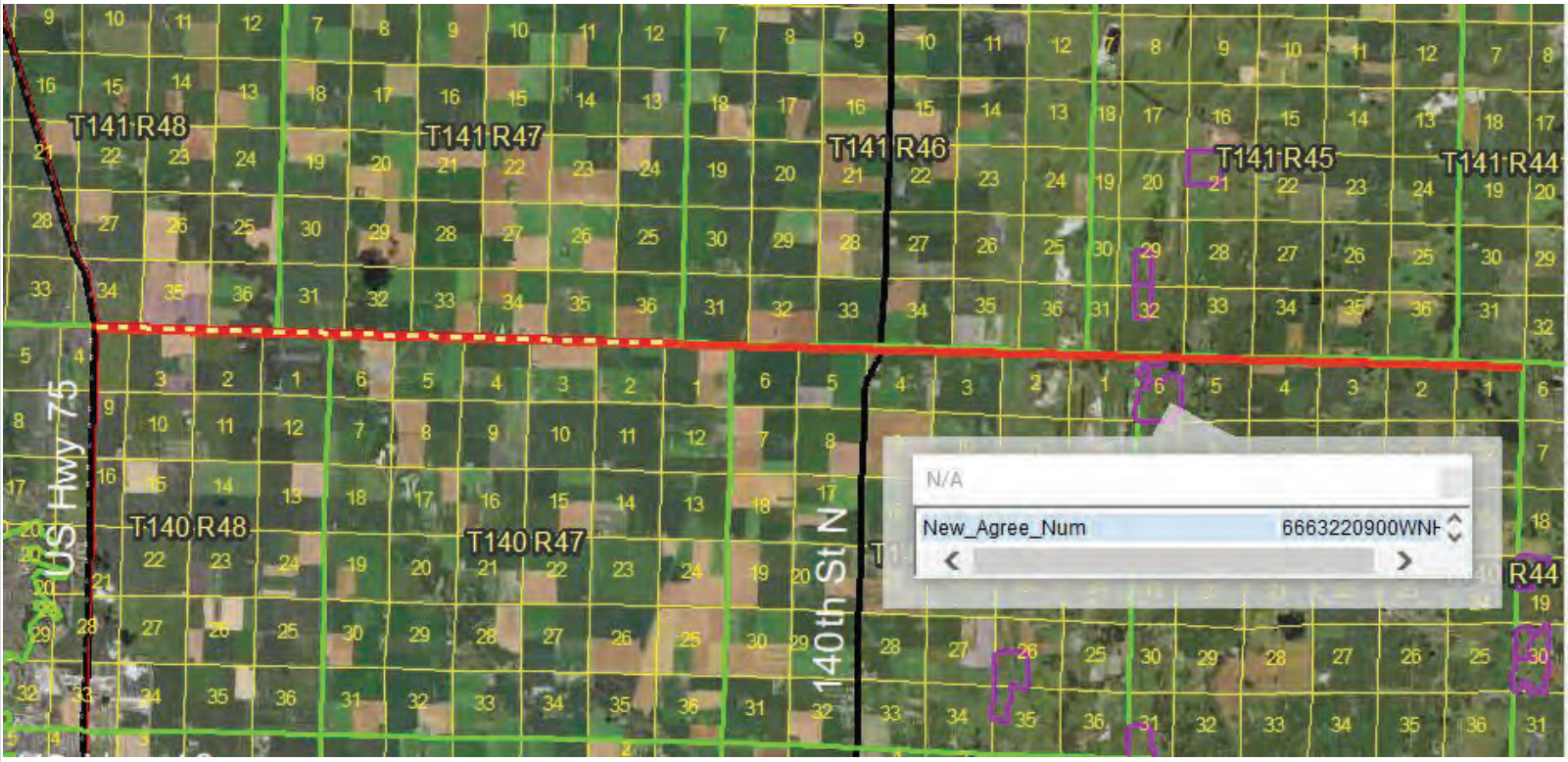
Location(TRS)/Address: T140_R48_S02 (Oakport)

± acres

Date: 11/08/2022

T140N R48W S04

Easement Impact Study Area in MN



Type:

Notes: No USDA easements are in the area of the proposed 8 mile transmission line burial site of T140N R48W S4 to T140N R47W S2, found right of US HWY 75. However Easement #66-6322-09-00WNH does lie adjacent to the south of the transmission line project area and might be affected.

NEST#: 66-6322-09-00WNH

Veronica A. Parsell

From: Brennan, Joseph - NRCS, St. Paul, MN <joseph.brennan@usda.gov>
Sent: Monday, November 7, 2022 11:54 AM
To: Veronica A. Parsell
Cc: Jeffrey Kalin - NRCS, St. Paul, MN
Subject: RE: NRCS Response to Buffalo River Line Rebuild Project

CAUTION: This email originated from outside of your organization.

Hello Veronica,

Based on the description, this is correct. If you need a letter or more official correspondence stating such, please follow up.

Sincerely,

Joe Brennan
State Soil Scientist - Minnesota
Natural Resources Conservation Service
375 Jackson St., Suite 600
St. Paul, MN 55101-1854
Mobile: (612) 246-0423
Office: (651) 602-7925
joseph.brennan@usda.gov

From: Veronica A. Parsell <VParsell@barr.com>
Sent: Monday, November 7, 2022 10:55 AM
To: Brennan, Joseph - NRCS, St. Paul, MN <joseph.brennan@usda.gov>
Cc: Miller, Kaitlyn - NRCS, St Paul, MN <Kaitlyn.Miller@usda.gov>; Jeffrey Kalin - NRCS, St. Paul, MN <jeffrey.kalin@usda.gov>
Subject: RE: NRCS Response to Buffalo River Line Rebuild Project

Hi Joseph,

I recently received the attached letter – thank you so much for sending, Jeff – and I wanted to touch base with you regarding the Maple River to Buffalo River Switch 69 kV Line Rebuild Project being exempt from the Farmland Protection Policy Act (FPPA). Based on my [limited] understanding, the project would be exempt from the FPPA because it consists of construction within an existing right-of-way purchased on or before August 4, 1984.

The Maple River to Buffalo project consists of a transmission line rebuild and all work will be restricted to the existing right-of-way, which is 80 feet in width. The Maple River to Buffalo line was constructed in the 1940s. Could you let me know if any additional information would be needed to confirm exemption?

Thank you so much,
Veronica

Veronica A. Parsell
She/her/hers

Senior Cultural Resources Specialist
Minneapolis, MN office: 952.832.2623
VParsell@barr.com
www.barr.com



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From: Jeffrey Kalin - NRCS, St. Paul, MN <jeffrey.kalin@usda.gov>
Sent: Thursday, November 3, 2022 7:43 AM
To: Veronica A. Parsell <VParsell@barr.com>
Cc: Brennan, Joseph - NRCS, St. Paul, MN <joseph.brennan@usda.gov>; Miller, Kaitlyn - NRCS, St Paul, MN <Kaitlyn.Miller@usda.gov>
Subject: NRCS Response to Buffalo River Line Rebuild Project

CAUTION: This email originated from outside of your organization.

Veronica,

Apologies for the delay in the response. Attached is the review that was completed for the Buffalo Line Rebuild Project in our findings there is one easement adjacent to the project that may be impacted depending on the activities involved we the rebuild. Thank you and have a great day.

Jeff Kalin
Minnesota State Wildlife Biologist
United States Department of Agriculture
Natural Resource Conservation Service
375 Jackson St., Suite 600
St. Paul, MN 55101
Office: 651-602-7868
Cell: 612-756-3842
jeffrey.kalin@usda.gov

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November 4, 2022

Mr. Terry Johnson
Minnkota Power Cooperative
5301 32nd Ave S
Grand Forks, ND 58201-3312

ND SHPO Ref.: 22-5334 Updated Information "Class I Cultural Resource Literature Review Report – Request for Concurrence Proposed Maple River-Buffalo 69kV Transmission Line Rebuild Project" in portions of [T141N R49W Section 36], Cass County, North Dakota

Dear Mr. Johnson,

We reviewed ND SHPO Ref.: 22-5334 Updated Information "Class I Cultural Resource Literature Review Report – Request for Concurrence Proposed Maple River-Buffalo 69kV Transmission Line Rebuild Project" in portions of [T141N R49W Section 36], Cass County, North Dakota and we continue to concur with a determination of "No Historic Properties Affected" for the portions of this project located within North Dakota provided it takes place in the location and in the manner described in the documentation and provided all borrow comes from an approved source.

Thank you for the opportunity to review this project. Please include the ND SHPO Reference number listed above in further correspondence for this specific project. If you have any questions please contact Lisa Steckler, Historic Preservation Specialist at (701) 328-3577 or lsteckler@nd.gov
Sincerely,

for William D. Peterson, PhD
State Historic Preservation [illegible]
(North Dakota)

22-5334