

Agassiz Transmission Line and Substation Project
Combined Application for Certificate of Corridor
Compatibility and Route Permit

Submitted to:
North Dakota Public Service Commission

Submitted by:
Minnkota Power Cooperative, Inc.

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 <i>Compliance with the Energy Conversion and Transmission Facility Siting Act</i>	4
1.2 <i>Project Terms</i>	4
1.3 <i>Project Location</i>	5
1.4 <i>Land Rights</i>	5
1.5 <i>Project Schedule</i>	8
1.6 <i>Project Ownership</i>	9
1.7 <i>Project Cost</i>	9
2.0 NEED FOR FACILITY	9
2.1 <i>Need Analysis</i>	9
2.2 <i>Alternatives Considered.....</i>	9
2.3 <i>Ten-Year Plan.....</i>	9
3.0 SITE SELECTION CRITERIA.....	10
3.1 <i>Exclusion Areas.....</i>	10
3.2 <i>Avoidance Areas.....</i>	11
3.3 <i>Selection Criteria.....</i>	14
3.4 <i>Policy Criteria.....</i>	17
3.5 <i>Design and Construction Limitations</i>	19
3.6 <i>Economic Considerations.....</i>	19
4.0 DESIGN AND CONSTRUCTION.....	20
4.1 <i>Project Design.....</i>	20
4.1.1 <i>Transmission Line.....</i>	20
4.1.2 <i>Substation</i>	21
4.2 <i>Project Access</i>	23
4.3 <i>Construction Workspace</i>	24
4.4 <i>Estimated Temporary and Permanent Impacts</i>	24
4.5 <i>Construction Activities.....</i>	25
4.5.1 <i>Pre-construction Surveying</i>	25
4.5.2 <i>Site Preparation.....</i>	26
4.5.3 <i>Borehole Excavation</i>	27
4.5.4 <i>Structure Assembly and Erection</i>	27
4.5.5 <i>Conductor Stringing and Tensioning.....</i>	27
4.5.6 <i>Reclamation.....</i>	28

4.6	<i>Construction Environmental Protection, Health, and Safety Measures</i>	28
4.6.1	Construction Waste Management	28
4.6.2	Environmental Protection Measures and Policies.....	29
4.6.3	Worker Safety and Health Protocol	29
4.7	<i>Operation and Maintenance</i>	29
4.8	<i>Decommissioning</i>	29
5.0	SETBACKS	30
5.1	<i>PSC Requirements</i>	30
5.2	<i>Local Setback Criteria</i>	30
6.0	ENVIRONMENTAL ANALYSIS	30
6.1	<i>Demographics and Local Economics</i>	30
6.1.1	Description of Resources	30
6.1.2	Impacts/Mitigation	31
6.2	<i>Public Services</i>	31
6.2.1	Description of Resources	31
6.2.2	Impacts/Mitigation	33
6.3	<i>Public Health, Welfare, and Safety</i>	35
6.3.1	Description of Resources	35
6.3.2	Impacts/Mitigation	36
6.4	<i>Visual Resources</i>	38
6.4.1	Description of Resources	38
6.4.2	Impacts/Mitigation	38
6.5	<i>Cultural Resources</i>	39
6.5.1	Description of Resources	39
6.5.2	Impacts/Mitigation	39
6.6	<i>Land Use, Vegetation, and Recreational Resources</i>	40
6.6.1	Description of Resources	40
6.6.2	Impacts/Mitigation	44
6.7	<i>Soils and Geologic Resources</i>	46
6.7.1	Description of Resources	46
6.7.2	Impacts/Mitigation	49
6.8	<i>Water Resources</i>	50
6.8.1	Description of Resources	50
6.8.2	Impacts/Mitigation	52

6.9	<i>Wildlife and Rare and Unique Natural Resources</i>	55
6.9.1	Description of Resources	55
6.9.2	Impacts/Mitigation	60
6.10	<i>Summary of Impacts and Avoidance/Minimization Measures</i>	64
7.0	POTENTIAL PERMITS/APPROVALS	69
8.0	FACTORS CONSIDERED	70
8.1	<i>Public Health and Welfare, Natural Resources, and the Environment</i>	70
8.2	<i>Technologies to Minimize Adverse Environmental Effects</i>	71
8.3	<i>Potential for Beneficial Uses of Waste Energy</i>	71
8.4	<i>Unavoidable Adverse Environmental Effects</i>	71
8.5	<i>Alternatives to Proposed Site</i>	71
8.6	<i>Irreversible and Irrecoverable Commitment of Natural Resources</i>	71
8.7	<i>Direct and Indirect Economic Impacts</i>	72
8.8	<i>Existing Development Plans of the State, Local Government, and Private Entities at or in the Vicinity of the Project</i>	72
8.9	<i>Effect of Site on Cultural Resources</i>	73
8.10	<i>Effect of Site on Biological Resources</i>	73
8.11	<i>Agency Comments</i>	73
8.11.1	City of Fargo	75
8.11.2	NDDOT	75
8.11.3	NRCS.....	75
8.11.4	NDGS.....	75
8.11.5	USACE	75
8.11.6	DOD/DOW	76
8.11.7	NDDWR	76
8.11.8	NDGF.....	76
9.0	QUALIFICATIONS OF CONTRIBUTORS	77
10.0	LITERATURE CITED	80

LIST OF TABLES

Table 1.	Project Terms	4
Table 2.	Exclusion Areas.....	10
Table 3.	Avoidance Areas	12
Table 4.	Selection Criteria	14
Table 5.	Policy Criteria	17

Table 6. Transmission Line Design Components	21
Table 7. Substation Design Components	23
Table 8. Estimated Temporary and Permanent Impacts	25
Table 9. Minimum Setback Distances as Designated by the Commission	30
Table 10. Land Cover	40
Table 11. USDA Soil Map Units Within the Study Area	47
Table 12. Federal Threatened and Endangered Species	56
Table 13. Summary of Impacts and Mitigation	64
Table 14. Anticipated Permits and Approvals Required	69
Table 15. Qualifications of Contributors	77

LIST OF FIGURES

Figure 1. Project Overview Map	2
Figure 2. Non-Jurisdictional Fiber Optic Cable Overview Map	3
Figure 3a. Proposed Project Route and Study Area - Aerial	6
Figure 3b. Proposed Project Route and Study Area - Topographic	7
Figure 4. Exclusion & Avoidance Areas	13
Figure 5. Land Use	41
Figure 6. Public Lands	43
Figure 7. Soils and Geologic Resources	48
Figure 8. Water Resources	53
Figure 9. Raptor and Eagle Nest Survey Locations	58

LIST OF APPENDICES

Appendix A. Minnkota Power Cooperative Ten-Year Plan	
Appendix B. Transmission Structure Drawings	
Appendix C. Cultural Resources Class I and III Reports (Redacted)	
Appendix D. U.S. Fish & Wildlife Service: Information for Planning and Consultation Report	
Appendix E. Raptor Nest Survey Report	
Appendix F. Agency Consultation Summary	
Appendix G. Project Site – Newspaper Figure	
Appendix H. Policies and Commitments Statement to Limit Environmental Impacts	

ACRONYMS AND ABBREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials
APLIC	Avian Power Line Interaction Committee
Application	Consolidated Application for a Certificate of Corridor Compatibility and Transmission Facility Route Permit
ATWS	additional temporary workspaces outside the Project Corridor
BCC	Birds of Conservation Concern
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best management practices
BNSF	Burlington Northern Santa Fe
Braun	Braun Intertec Corporation
CCEC	Cass County Electric Cooperative
Certificate	Certificate of Corridor Compatibility
CFR	Code of Federal Regulations
CWA	Clean Water Act
dBA	A-weighted decibels
DOD/DOW	Department of Defense / Department of War
EMF	electromagnetic fields
EMR	electromagnetic radiation
EPA	U.S. Environmental Protection Agency
EPC	Engineer Procure Construct
ESA	Endangered Species Act
ETJ	Extraterritorial jurisdiction
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
HUC	Hydrologic Unit Code
I-29	U.S. Interstate 29
ICBM	Intercontinental ballistic missile
In Situ	In Situ Archaeological Consulting, LLC

IPaC	USFWS Information for Planning and Consultation
kV	kilovolt
Maple River– Bison Line	MPC Maple River–Bison 345-kV transmission line
MBTA	Migratory Bird Treaty Act
MLRA	Major Land Resource Areas
MPC	Minnkota Power Cooperative, Inc.
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
NDDEH	North Dakota Department of Health
NDDEQ	North Dakota Department of Environmental Quality
NDDOT	North Dakota Department of Transportation
NDDWR	North Dakota Department of Water Resources
NDGF	North Dakota Game and Fish Department
NDGS	North Dakota Geological Survey
NDLMI	North Dakota Labor Market Information
NDSHPO	North Dakota Historic Preservation Office
NDWC	North Dakota Water Commission
NESC	National Electrical Safety Code
NHD	National Hydrography Dataset
NIEHS	National Institute of Environmental Health Sciences
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
OPGW	optical ground wire
Project	Agassiz Transmission Line & Substation Project
PSC	North Dakota Public Service Commission
Red River UNT	Red River Unnamed Tributary
Route Permit	Transmission Facility Route Permit

ROW	right-of-way
SCADA	Supervisory Control and Data Acquisition
SGCN	Species of Greatest Conservation Need
Siting Act	North Dakota Energy Conversion and Transmission Facility Siting Act, NDCC Chapter 49-22
Siting Rules	NDAC Article 69-06
SPCC	Spill Prevention, Control, and Countermeasure
SWAP	State Wildlife Action Plan
SWPPP	Storm Water Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USCB	U.S. Census Bureau
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service
WOTUS	Waters of the United States

Completeness Checklist

Description	Section(s) Addressed	
NDAC Section 69-06-05-01 - Transmission Facility Permit		
Subsection 2 – Contents		
2.	The application must contain:	
a.	A description of the following:	
(1)	The type of facility proposed.	1.0, 4.1
(2)	Purpose of the facility.	1.0, 2.0
(3)	The technology to be deployed.	1.0, 4.1
(4)	The type of product to be transmitted.	1.0, 4.1
(5)	The source of the product to be transmitted.	1.0, 2.1
(6)	The final destination of the product to be transmitted.	1.0, 2.1
(7)	The proposed size and design and any alternate size or design that was considered, including:	1.0, 1.2, 2.2, 4.1
	The width of right-of-way;	
	The approximate length of the facility;	
	The estimated span length for electric facilities;	
	The anticipated type of structure for electric facilities;	
	The voltage for electric facilities; and	
	The requirement for and location of any new associated facilities	
b.	The anticipated time schedule for accomplishing major events, including:	1.5
(1)	Obtaining the certification of corridor compatibility;	
(2)	Obtaining the route permit;	
(3)	Completing right-of-way acquisition;	
(4)	Starting construction;	
(5)	Completing construction;	
(6)	Testing operations; and	
(7)	Commencing operations.	
c.	A copy of each evaluative study or assessment of the environmental impact of the proposed facility submitted to the agencies listed in Section 69-06-01-05 and each response received.	6.0, 8.11, Appendices C, D, E, F
d.	An analysis of the need for the proposed facility based on present and projected demand for the product transmitted, including the most recent system studies supporting the analysis of the need.	1.0, 2.1
e.	A description of any feasible alternative methods for serving the need.	2.2

Description		Section(s) Addressed
f.	The width of a corridor must be at least 10% of its length, but not less than one mile or greater than six miles unless another appropriate width is determined by the commission.	1.2
g.	A study area that includes a proposed corridor of sufficient width to enable the commission to evaluate the factors addressed in North Dakota Century Code Section 49-22-09.	1.2, 6.0
h.	A discussion of the factors in North Dakota Century Code Section 49-22-09 to aid the commission's evaluation of the proposed route.	2.0, 3.0, 6.0, 8.0
i.	A discussion of the applicant's policies and commitments to limit the environmental impact of its facilities, including copies of board resolutions and management directives.	4.6.3, 6.0, Appendix H
j.	Identification and map of the criteria that led to the proposed route location within the designated corridor, including exclusion areas, avoidance areas, selection criteria, policy criteria, design construction limitations, and economic considerations.	3.0, Figure 4
k.	A discussion of the relative value of each criteria and how the applicant selected the proposed corridor location, giving consideration to all criteria and how the location, construction, and operation of the facility will affect each criteria.	2.2, 3.0, 4.0, 6.0
l.	A discussion of the general mitigative measures that the applicant will take to minimize adverse impacts that result from a route location in the proposed corridor and the construction and operation of the facility.	6.0
m.	The qualifications of each person involved in the corridor location study.	9.0
n.	A map identifying the criteria that led to the proposed route location within the designated corridor and the location of any new associated facilities. Several different criteria may be shown on each map depending on the map scale and the density and nature of the criteria.	Figure 4
o.	An 8.5-inch by 11-inch black and white map suitable for newspaper publication depicting the site area	Appendix G
p.	A discussion of present and future natural resource development in the area	6.0, 8.8
q.	Map and GIS requirements. The applicant shall provide information that is complete, current, presented clearly and concisely, and supported by appropriate references to technical and other written material available to the commission...	Figures; electronically submitted
NDAC Section 69-06-08-02 - Transmission Facility Corridor and Route Criteria		
The following criteria must guide and govern the preparation of the inventory of exclusion and avoidance areas, and the corridor and route suitability evaluation process:		
1.	Exclusion Areas	3.1
2.	Avoidance Areas	3.2
3.	Selection Criteria	3.3

Description		Section(s) Addressed
4.	Policy Criteria	3.4
NDCC Section 49-22-08 - Application for a certificate - Notice of filing - Amendment - Designation of a site or corridor.		
An application for a certificate must be in such form as the commission may prescribe, containing the following information:		
a.	A description of the size and type of facility.	1.0, 4.1
b.	A summary of any studies which have been made of the environmental impact of the facility.	6.0, Appendices C, D, E
c.	A statement explaining the need for the facility.	1.0, 2.0
d.	An identification of the location of the preferred site for any electric energy conversion facility	N/A
e.	An identification of the location of the preferred corridor for any electric transmission facility	1.2, 1.3, Figure 3a, Figure 3b
f.	A description of the merits and detriments of any location identified and a comprehensive analysis with supporting data showing the reasons why the preferred location is best suited for the facility	3.0, 6.0
g.	A description of mitigative measures that will be taken to minimize all foreseen adverse impacts resulting from the location, construction, and operation of the proposed facility.	4.5, 4.6, 4.7, 6.0
h.	An evaluation of the proposed site or corridor with regard to the applicable considerations set out in Section 49-22-09 and the criteria established pursuant to Section 49-22-05.1.	3.0, 6.0, 8.0
i.	Such other information as the applicant may consider relevant or the commission may require.	Complete Application including Appendices
NDCC Section 49-22-08.1 - Application for a permit - Notice of filing - Amendment - Designation of a route.		
An application for a route permit for a transmission facility within a designated corridor shall be filed no later than two years after the issuance of the certificate and must be in such form as the commission may prescribe, containing the following information:		
a.	A description of the type, size, and design of the proposed facility.	1.0, 4.1
b.	A description of the location of the proposed facility.	1.3
c.	An evaluation of the proposed route with regard to the applicable considerations set out in Section 49-22-09 and the criteria established pursuant to Section 49-22-05.1.	3.0, 6.0, 8.0
d.	A description of mitigative measures that will be taken to minimize all foreseen adverse impacts resulting from the location, construction, and operation of the proposed facility.	4.5, 4.6, 4.7, 6.0
e.	A description of the right-of-way preparation and construction and reclamation procedures.	4.0, 4.5, 4.5.6, 4.8
f.	A statement setting forth the manner in which:	

Description		Section(s) Addressed
	(1) The utility will inform affected landowners of easement acquisition, and necessary easement conditions and restrictions.	1.4
	(2) The utility will compensate landowners for easements, without reference to the actual consideration to be paid.	1.4
g.	Such other information as the utility may consider relevant or the commission may require.	Complete Application including Appendices
NDCC Section 49-22-09 - Factors to be considered in evaluating applications and designation of sites, corridors, and routes.		
The commission shall be guided by, but is not limited to, the following considerations, where applicable, to aid the evaluation and designation of sites, corridors, and routes:		
a.	Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.	6.0, 8.1
b.	The effects of new energy conversion and electric transmission technologies and systems designed to minimize adverse environmental effects.	6.0, 8.2
c.	The potential for beneficial uses of waste energy from a proposed electric energy conversion facility.	N/A, 8.3
d.	Adverse direct and indirect environmental effects that cannot be avoided should the proposed site or route be designated.	6.0, 8.4
e.	Alternatives to the proposed site, corridor, or route which are developed during the hearing process, and which minimize adverse effects.	2.2, 8.5
f.	Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.	6.0, 8.6
g.	The direct and indirect economic impacts of the proposed facility.	6.1, 8.7
h.	Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.	6.2, 8.8
i.	The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.	6.4, 6.5, 8.9, Appendix C
j.	The effect of the proposed site or route on areas unique because of biological wealth or because the areas are habitats for rare and endangered species.	6.9, 8.10, Appendices D and E
k.	Problems raised by federal agencies, other state agencies, and local entities.	8.11

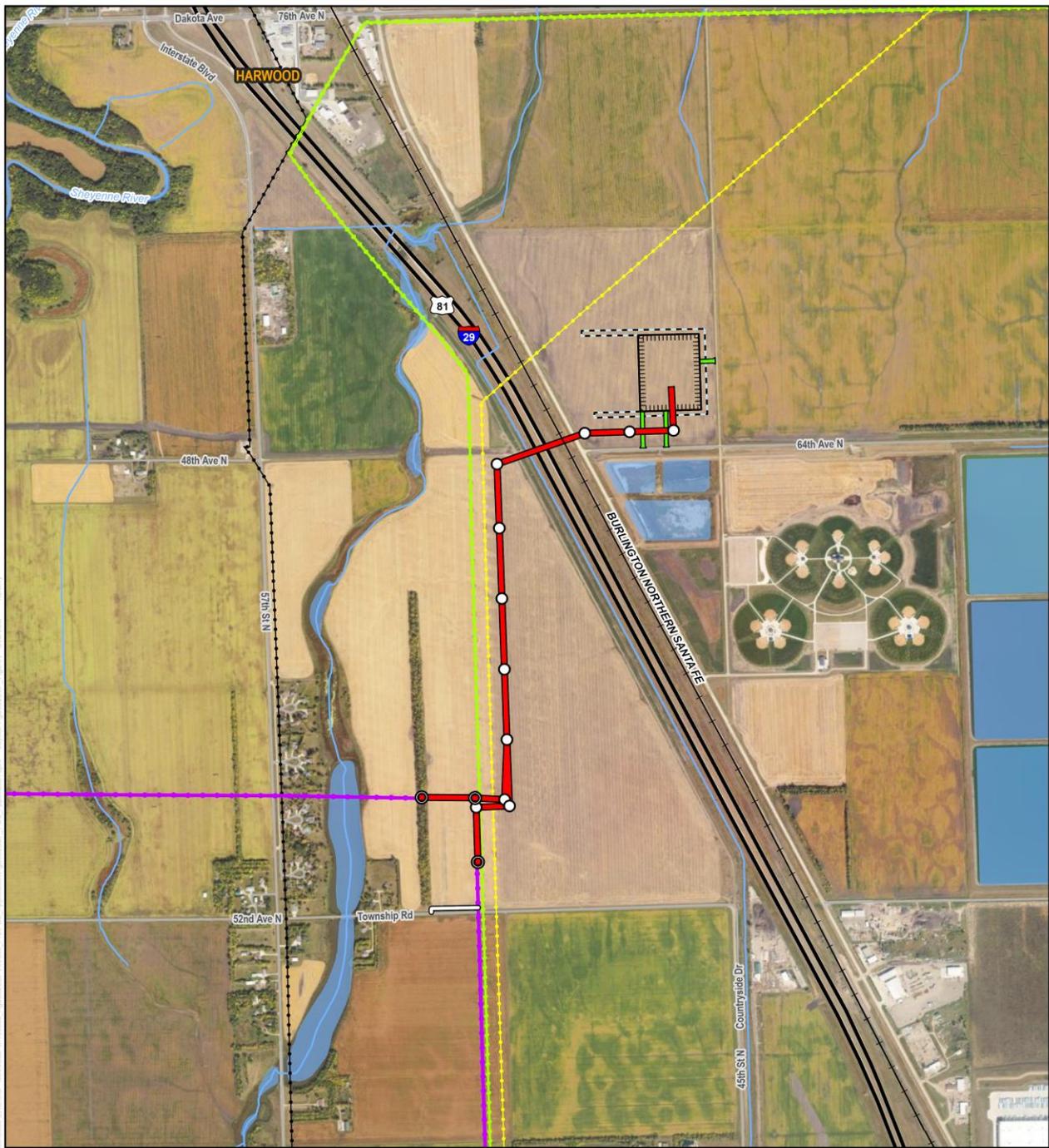
1.0 INTRODUCTION

Pursuant to North Dakota Century Code (NDCC) Sections 49-22-07 and 49-22-08.2, Minnkota Power Cooperative, Inc. (MPC) submits to the North Dakota Public Service Commission (PSC) this consolidated application (Application) for an Electric Transmission Facility Certificate of Corridor Compatibility (Certificate) and Route Permit (Route Permit) to construct and operate the proposed Agassiz Transmission Line & Substation Project (Project), an approximately 1.74-mile double-circuit 345-kilovolt (kV) tap transmission line and associated 345/34.5-kV substation south of Harwood in Cass County, North Dakota. MPC is a regional generation and transmission power cooperative headquartered in Grand Forks, North Dakota, providing wholesale power to 11 member-owner rural electric distribution cooperatives (cooperative-members) in eastern North Dakota and northwestern Minnesota. MPC also acts as the operating agent of the Northern Municipal Power Agency, which serves the electric needs of 12 municipalities in the same geographic region as the MPC member-owners.

The Project will be networked and serve MPC distribution cooperative-member, Cass County Electric Cooperative (CCEC). MPC is accelerating the Project in order to accommodate member interconnection requests for power supply within the CCEC load territory, including but not limited to the large-load member (Polaris Forge 2 data center). Both the transmission line and substation are to be located on private land purchased by MPC.

The transmission line will consist of 345-kV weathered steel structures in a new 150-foot-wide transmission line right-of-way. It will tie into the existing MPC Maple River-Bison 345-kV transmission line (Maple River-Bison Line) and terminate at the proposed Agassiz Substation (Figure 1). Three existing structures on the Maple River-Bison Line will be replaced to accommodate the tap for the new line.

Fiber optic cable will also be installed on the Agassiz transmission line, which will connect with fiber optic cable being installed by MPC on the Maple River-Bison Line from the Maple River Substation approximately 2 miles south of the tap, to the Bison Substation approximately 10 miles west (Figure 2). MPC is installing the fiber optic cable on the Maple River-Bison Line as part of the operation and maintenance of that existing transmission line and is not requesting that it be included in the Certificate and Route Permit for the Agassiz Project. Activities associated with installation of the fiber optic line on the Maple River-Bison Line will take place within the existing MPC right-of-way (ROW). A description has been included here in full transparency of associated activities being conducted by MPC under a similar funding mechanism.



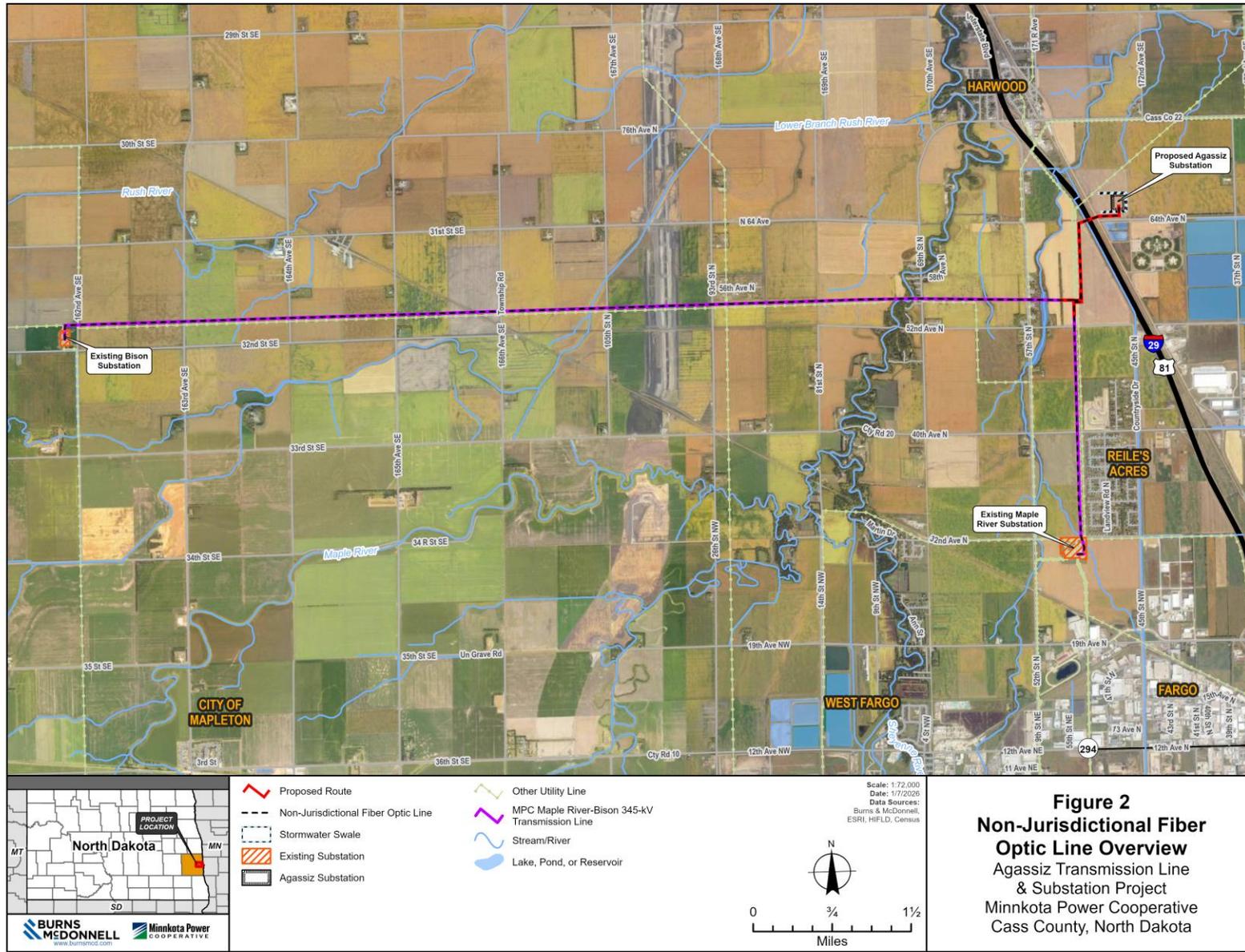
- Proposed New Structure
- Proposed Structure Replacement
- Proposed Route
- Temporary Off-ROW Access Road
- Proposed Agassiz Substation
- Substation Access Drive
- - - Stormwater Swale
- ~ Stream/River
- ~ Lake, Pond, or Reservoir
- ~ Other 69-kV Utility Line
- ~ MPC Wiser Tap-Maple River / Maple River-Kragnes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

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

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

N
 0 750 1,500
 Feet





1.1 Compliance with the Energy Conversion and Transmission Facility Siting Act

The North Dakota Energy Conversion and Transmission Facility Siting Act, NDCC Chapter 49-22 (Siting Act) requires the proponent of an electric transmission facility to obtain a Certificate and Route Permit from the PSC in order to locate, construct, and operate a transmission facility in the state of North Dakota. An electric transmission facility is defined as an electric transmission line and associated facilities with a design in excess of 115-kV that is one or more miles in length. An application must meet certain criteria set forth in the Siting Act, as well as in North Dakota Administrative Code (NDAC) Article 69-06 (Siting Rules). The siting of a transmission facility is to be made in an orderly manner compatible with environmental preservation and the efficient use of resources (NDCC Section 49-22-02).

In this Application, MPC presents the information required by the Siting Act and the Siting Rules. MPC considered the exclusion and avoidance areas, the selection criteria, and the policy criteria in the design of the Project, in accordance with NDAC Sections 69-06-05-01 and 69-06-08-02 and NDCC Sections 49-22-08, 49-22-08.1 and 49-22-09. Information regarding Project design and technical information has been included in this Application to aid in review by the PSC, regulatory agencies, and the public. A Compliance Checklist is provided at the beginning of the Application identifying where applicable statutory and rule requirements are addressed.

1.2 Project Terms

Terms used in this Application are defined in Table 1 and shown in Figures 3a and 3b.

Table 1. Project Terms

Term	Definition/Description
Project Route	<p>In accordance with NDCC Section 49-22-03(14), "Route" is defined as the location of an electric transmission facility within a designated corridor and is also referred to as the centerline. MPC requests that the description of the Project Route also include a construction buffer of 20 feet on either side of the centerline to account for unanticipated obstacles.</p> <p>Total Project Route = 1.74 miles</p>
Project ROW	<p>The Project ROW consists of the land that will be owned by MPC on which they will construct and operate the Agassiz Transmission Line. The transmission line ROW is 150 feet wide and centered on the Project Route.</p> <p>Total Project ROW = 28.4 acres</p>
Project Corridor ¹	<p>In accordance with NDCC Section 49-22-03(5), the corridor is the area of land where a designated route may be established for an electric transmission facility and all associated facilities. The Project Corridor width is the same as the Project ROW (150 feet wide) and expands to include the proposed substation property. It also includes the portion of the Maple River – Bison Line and three structures being replaced at the tap.</p> <p>Total Project Corridor = 69.2 acres</p>

Term	Definition/Description
Project Workspace	<p>Construction activities will be carried out within the Project Corridor and additional temporary workspaces (ATWS) outside the Project Corridor including pull-back/tensioning sites, extra access/workspace, and a temporary off-ROW access road (temporary access road).</p> <p>Total Project Workspace = 77.9 acres (ATWS = 8.7 acres)</p>
Study Area ²	<p>The Study Area analyzed for the Project is one mile wide (0.5 mile on either side of the Project Route).¹</p> <p>Total Study Area = 1,389.4 acres</p>

¹ NDAC Section 69-06-05-01(2)(f) states that the “width of a corridor must be at least 10% of its length, but not less than one mile or greater than six miles unless another appropriate width is determined by the commission.” MPC proposes a 150-foot-wide corridor width based on the siting constraints described in the table and Section 3.5.

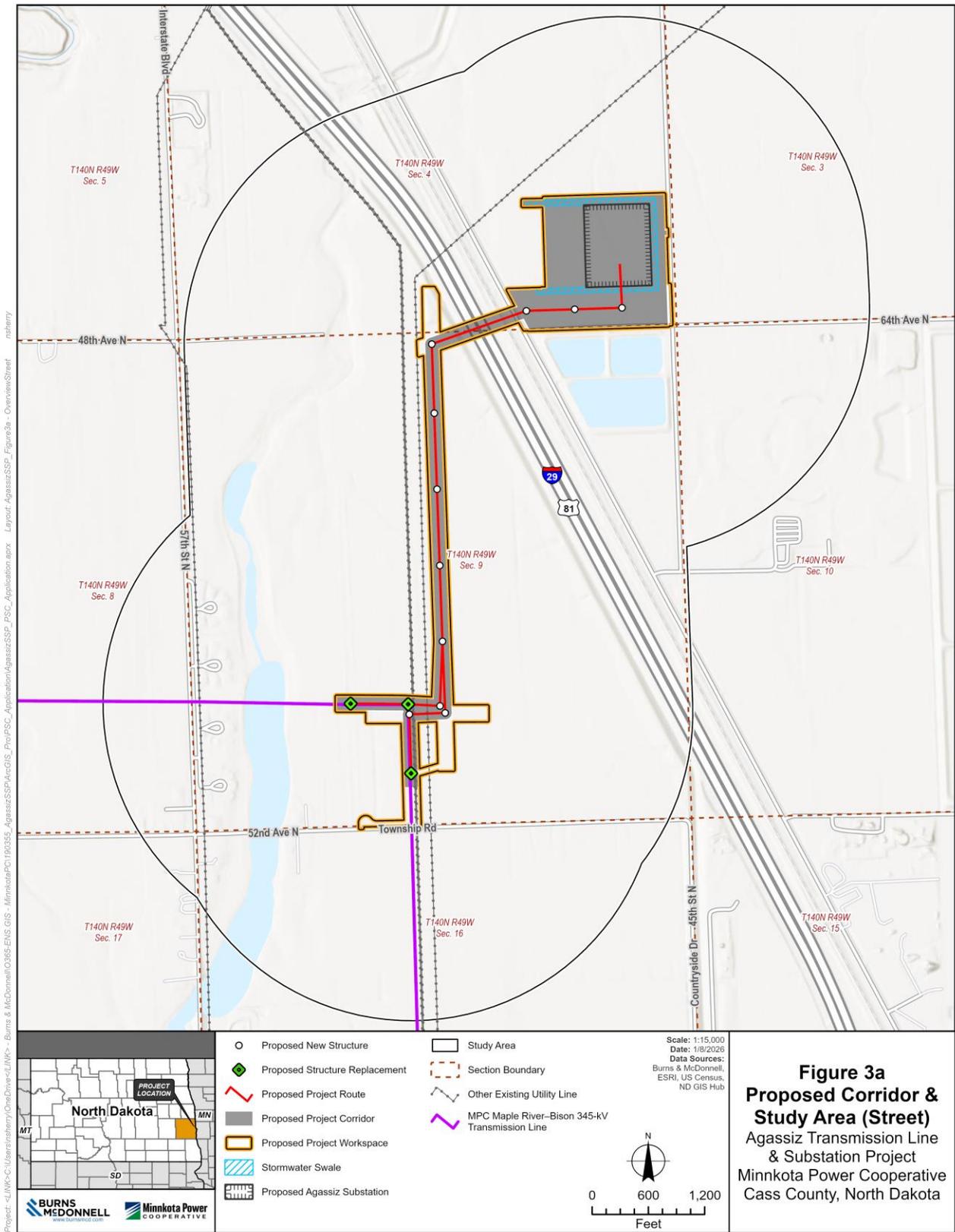
² MPC proposes a 1-mile-wide Study Area that includes a desktop assessment and contains resource-specific survey areas at various distances of the Project Corridor sufficient to evaluate the factors addressed in NDCC Section 49-22-09 (see Section 6.0 of this application).

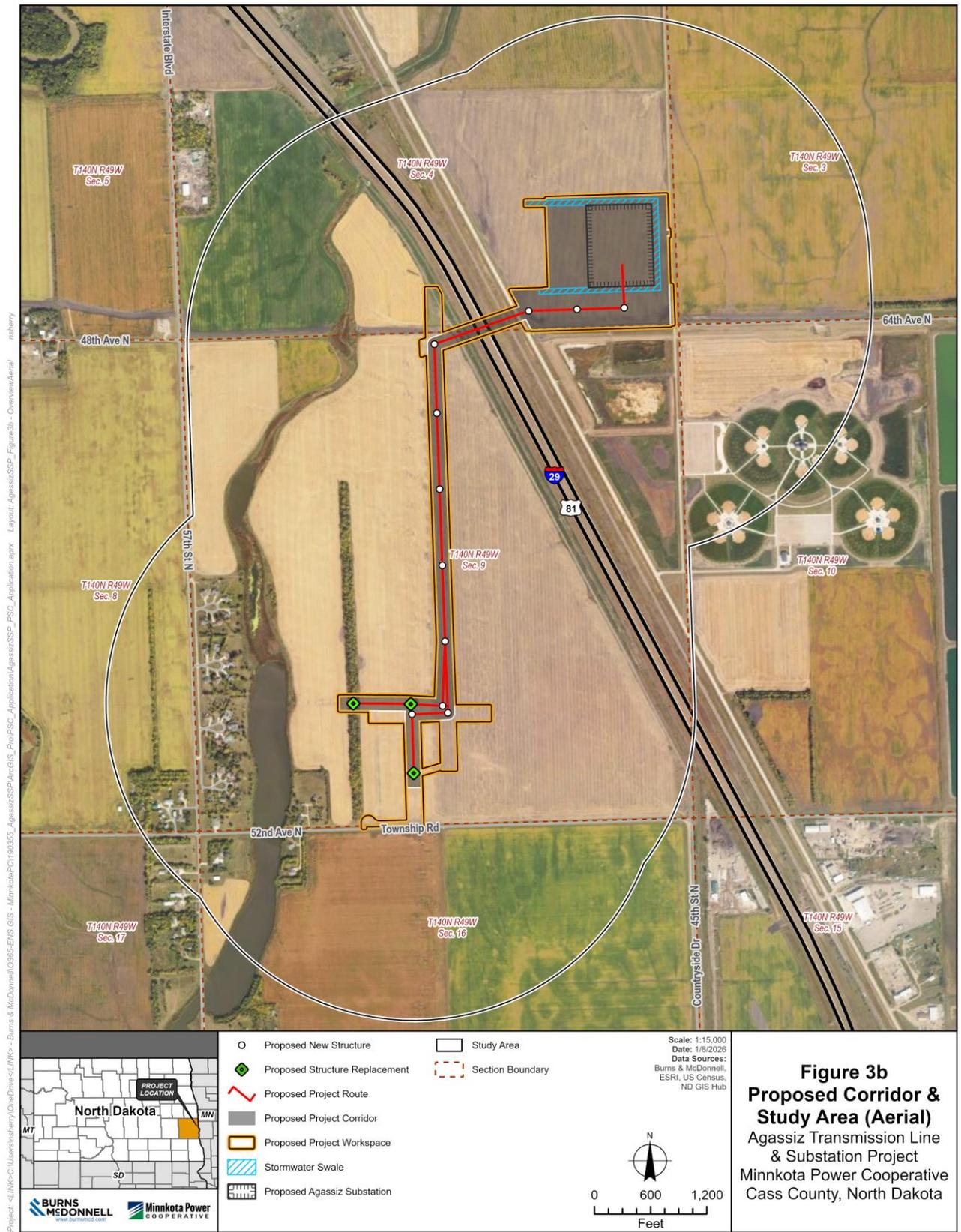
1.3 Project Location

The transmission line will tie in to the existing MPC Maple River–Bison Line east of 57th Street North; travel north adjacent to an existing MPC 69-kV distribution line and 230-kV transmission line; cross northeast across Cass County Road 81, U.S. Interstate 29 (I-29), and the Burlington Northern Santa Fe (BNSF) Railroad; and terminate at the proposed Agassiz Substation (see Figure 1). The proposed substation will be on approximately 15 acres northwest of the intersection of 64th Avenue North and 45th Street North in Reed Township within the extraterritorial jurisdiction (ETJ) of the City of Harwood. The transmission line will occur in the ETJ of both the City of Harwood and the City of Fargo (Cass County 2025a; City of Harwood 2025a; City of Fargo 2025a). The Project is in Sections 4 and 9 of Township 140 North, Range 49 West.

1.4 Land Rights

The Project will be entirely located on MPC-owned property.





1.5 Project Schedule

Key Project schedule milestones include:

1. **Local Permitting:** The Project will require the state and local permits listed below and detailed in Section 7.0. Permit applications will be submitted in the first and second quarters of 2026 before construction of the applicable Project component. MPC sent introductory letters to the respective regulatory offices on December 9th, 2025, to request input on the Project and identify any questions or concerns. Local permit applications will be submitted during Quarter 1 and 2 of 2026 and secured prior to the start of construction.
 - City of Harwood Building Permit (substation and transmission line structures)
 - City of Harwood Floodplain Permit for the substation and transmission line structures
 - City of Harwood Driveway License for substation access drives
 - City of Fargo Floodplain Permit for transmission line structures
 - City of Fargo Erosion and Sediment Control permit in support of the Floodplain Permit approval
 - Cass County Utility Permit for the transmission line crossing of Cass County Road 81
 - North Dakota Department of Transportation (NDDOT) Utility Occupancy Permit for the transmission line crossing of I-29
 - BNSF Railway Crossing Permit for the transmission line crossing of the BNSF Railroad
 - General Permit for Stormwater Discharges Associated with Construction Activities (NDR11-0000) for the substation and transmission line structures
 - Electrical Permit (Wiring Certificate and Inspection Approval) for the substation and transmission line structures
 - Oversize/Overweight Permits from Cass County and NDDOT, as applicable
2. **Certificate and Route Permit:** MPC submitted the application January 9, 2026.
3. **Certificate and Permit Approval:** PSC approval of a Certificate and Permit for the Project Corridor and Route is anticipated by April 2026.
4. **Equipment Procurement, Manufacture and Delivery:** Construction supplies will be ordered between approximately December 2025 and the second quarter of 2026.

5. Construction: MPC anticipates construction will begin in April 2026 following receipt of the PSC Certificate and Route Permit, as well as other necessary local permits, and be completed by December 2026.

6. Test and Operations: Target date of September to December 2026.

7. Commercial Operation: Target date of September to December 2026.

1.6 Project Ownership

MPC will own the proposed Project and manage its construction and operation. MPC will select a qualified third-party contractor to perform Project construction.

1.7 Project Cost

The total cost of the Project, including design, permitting, and construction, is estimated to be \$75 million.

2.0 NEED FOR FACILITY

2.1 Need Analysis

As discussed above, the Project is needed to supply power to CCEC and its members, including the large-load member that is currently under construction and scheduled to become operational in 2026. As the wholesale provider for CCEC, MPC's existing power grid will provide all power needed by the data center and other customers. CCEC will construct a distribution line connecting to the Agassiz Substation.

2.2 Alternatives Considered

MPC has determined that the Project Route is the most viable route as well as the route that best complies with the exclusion area, avoidance area, selection, and policy criteria identified in NDAC Section 69-06-08-02 (also see Section 8.5 of this application for further discussion). No other routes were considered because the proposed route (1) requires the least amount of new transmission line; (2) is collocated along the majority of the route; (3) is on land being sold or permitted by willing landowners; and (4) has minimal environmental impacts.

2.3 Ten-Year Plan

MPC filed an updated Ten-Year Plan with the Commission on July 1, 2024, pursuant to NDCC Section 49-22-04 (Case No. PU-24-265), and a copy is provided in Appendix A. MPC is regularly contacted by customers that have an interest in adding new load. While this Project is not specifically identified in the Ten-Year Plan, as no request had yet been made and no detailed plans developed, the Project is consistent with MPC's stated intention to address various identified future needs in its territory, and is being moved up in the project queue in order to accommodate interconnection requests for power supply.

This Project is needed to provide power to local commercial development, which is discussed in the Ten-Year Plan on file with the Commission.

3.0 SITE SELECTION CRITERIA

The Project Route and Corridor were selected to minimize the amount of new transmission line needed to meet the needs of CCEC while avoiding or minimizing adverse human and environmental impacts in accordance with the Siting Act (NDCC Sections 49-22-05.1 and 49-22-09; NDAC Section 69-06-08-02). MPC analyzed existing environmental characteristics (including information obtained through field surveys) and reached out to underlying landowners and regulatory agencies to determine the presence of and potential impacts to human and environmental resources, including the exclusion and avoidance areas identified by the Siting Act. Where potential adverse impacts could occur, MPC reviewed the NDAC selection criteria to identify if and how minimization measures could be implemented should impacts be significant. MPC also reviewed the policy criteria to identify potential benefits from the Project, as recognized in the NDAC, along with design and construction limitations and economic considerations in Project planning. Each of these considerations is discussed in detail in this section.

3.1 Exclusion Areas

In accordance with NDAC Section 69-06-08-02(1), which implements NDCC Section 49-22-05.1, the geographical areas listed in Table 2 and shown in Figure 4 must be excluded in the consideration of a transmission facility route. Exclusion areas may be located within the corridor, but at no given point can such an area or areas encompass more than 50 percent of the corridor width unless there is no reasonable alternative. NDAC Section 69-06-08-02 further specifies that a buffer zone of a reasonable width to protect the integrity of an exclusion area must be included. Natural screening may be considered in determining the width of the buffer zone. As shown in Table 2, no exclusion areas are located within the Project Route or Corridor.

Table 2. Exclusion Areas

Exclusion Area	Present in Corridor/ Route	Description	Section(s) Addressed
Designated or Registered <i>National</i> Resources			
Parks and memorial parks	No	N/A	6.6
Historic sites and landmarks	No	N/A	6.4, 6.5
Natural landmarks and monuments	No	N/A	6.4, 6.5
Wilderness areas	No	N/A	6.6, 6.9
Designated or Registered <i>State</i> Resources			
Parks	No	N/A	6.6
Historic sites, historical markers, and archaeological sites	No	N/A	6.4, 6.5

Exclusion Area	Present in Corridor/ Route	Description	Section(s) Addressed
Monuments	No	N/A	6.4, 6.5
Nature preserves	No	N/A	6.5, 6.8
County and Local Resources			
Parks and recreational areas; municipal parks; and parks owned or administered by other governmental subdivisions	No	N/A	1.5, 6.2, 6.6
Sensitive Species			
Areas critical to the life stages of threatened or endangered animal or plant species	No	N/A	6.9
Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged	No	N/A	6.9
Military Resources			
Areas within 1,200 feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility	No	N/A	5.1
Areas within 30 feet on either side of a direct line between ICBM launch facility and a missile alert or launch control facilities to avoid microwave interference.	No	N/A	5.1

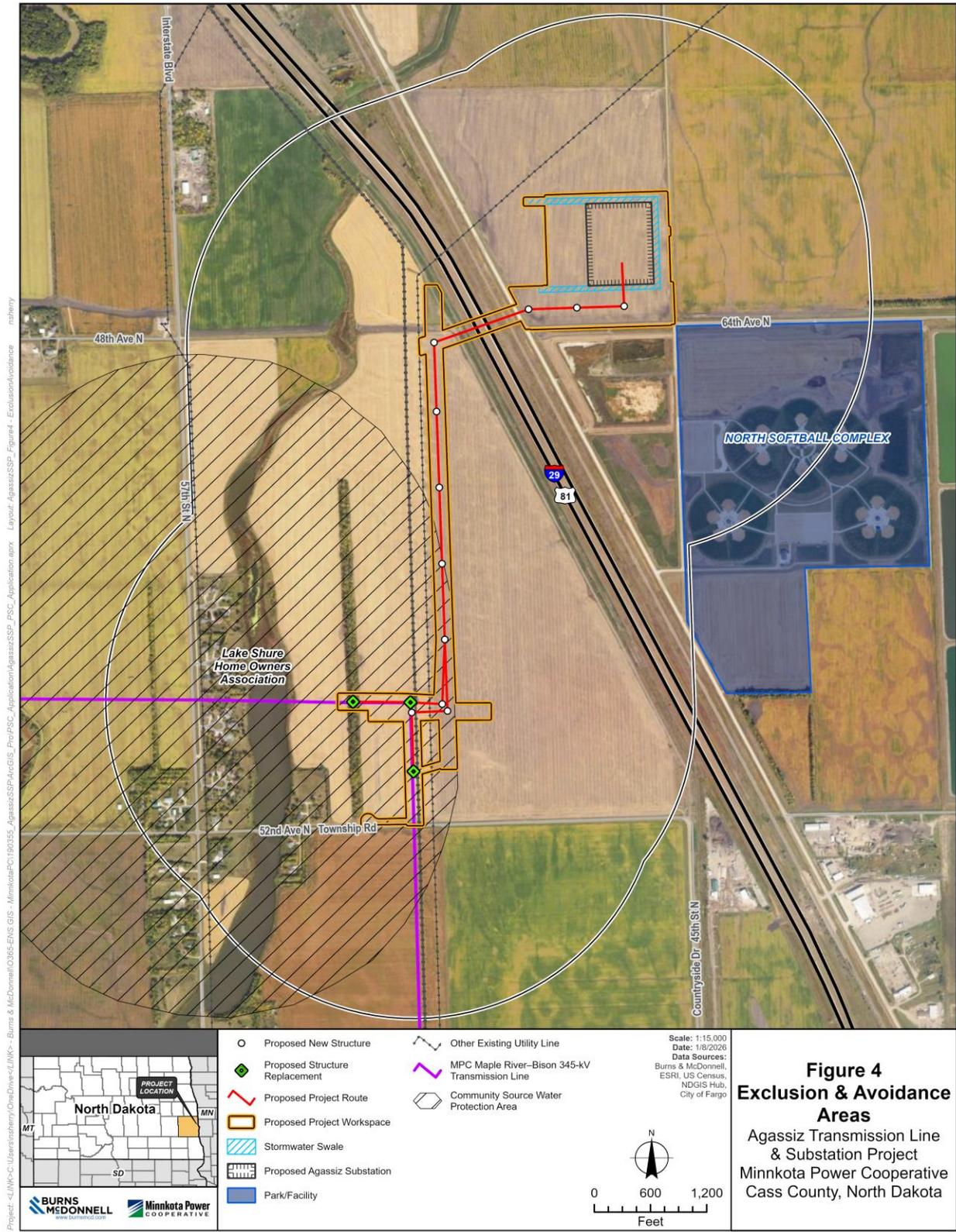
3.2 Avoidance Areas

In accordance with NDAC Section 69-06-08-02(2), the geographical areas listed in Table 3 and shown in Figure 4 cannot be approved as a site for routing of a transmission facility unless the applicant shows that, under the circumstances, there is no reasonable alternative. The NDAC further requires a buffer zone of a reasonable width to protect the integrity of the area. Natural screening may be considered in determining the width of the buffer zone.

As shown in Table 3, a community source water protection area is present within the Project Route and is included here as a reservoir or municipal water supply. However, best management practices (BMPs), including the implementation of avoidance and minimization measures, as discussed in Section 6.9, will be used to minimize potential impacts to surface and ground water. Accordingly, significant adverse effects will be avoided.

Table 3. Avoidance Areas

Avoidance Areas	Present in Corridor/ Route	Description	Section(s) Addressed
Designated or Registered <i>National</i> Resources			
Historic districts	No	N/A	6.5
Wildlife areas and wildlife refuges	No	N/A	6.6, 6.9
Wild, scenic, or recreational rivers	No	N/A	6.8
Grasslands	No	N/A	6.6
Designated or Registered <i>State</i> Resources			
Wild, scenic, or recreational rivers	No	N/A	6.8
Game refuges and game management areas	No	N/A	6.6, 6.9
Management areas	No	N/A	6.6
Forests and forest management lands	No	N/A	6.6
Grasslands	No	N/A	6.6
Other Historic Resources			
Historical resources which are not specifically designated as exclusion or avoidance areas	No	N/A	6.5
Geology			
Areas which are geologically unstable	No	N/A	6.7
Land Use			
Within 500 feet of a residence, school, or place of business	No	N/A	5.1, 6.6
Water Resources			
Reservoirs and municipal water supplies	Yes	Community Source Water Protection Area for the Lake Shure Home Owners Association within the Agassiz Transmission Line Route and Corridor.	6.8
Water sources for organized rural water district	No	N/A	6.8
Recreational Resources			
Areas of recreational significance which are not designated as exclusion areas	No	N/A	6.6



3.3 Selection Criteria

In accordance with NDAC Section 69-06-08-01(5), a site can be approved in an area only when the applicant demonstrates to the Commission that any significant adverse effects resulting from the location, construction, and operation of the facility in that area, as they relate to specified selection criteria, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum. As summarized in Table 4 and detailed in Section 6.0, MPC’s analysis found that the Project will have no significant adverse effects related to the selection criteria specified in NDAC Section 69-06-08-02(3).

Table 4. Selection Criteria

Selection Criteria	Potential Effects	Section(s) Addressed
Agriculture		
Agricultural production	Moderate impacts. Agricultural production will be discontinued within the substation property; however, agricultural activities may resume around the transmission line structures within the Project Corridor west of I-29 following construction. Landowners will be compensated for the purchase of property for the Project Corridor and for any crop damage in ATWS outside the Project Corridor during construction and operation.	6.6
Family farms and ranches	No impacts. Former land ownership of the Project Corridor included a real estate and property management company and technology company based on landowner information and publicly available data (REGRID 2025).	6.6
Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation	None. No irrigation is present.	6.6

Selection Criteria	Potential Effects	Section(s) Addressed
Water Resources		
Surface drainage patterns and ground water flow patterns	Minor impacts. No measurable change in surface drainage patterns and ground water flow patterns will occur in the 100-year floodplain along the Agassiz transmission line since soil impacts are primarily temporary, and widely spaced structures have a relatively small permanent footprint. A minor change in surface drainage patterns and ground water flow patterns may occur due to the relatively impermeable surface of the substation yard, which will be mitigated through the use of a stormwater drainage system (a swale around the substation draining to a detention pond).	6.8
Noise		
Sound-sensitive land uses	<p>Minor impacts. The closest sound-sensitive land uses include three residences between approximately 900 and 1,500 feet southwest from the southern end of the Project Corridor, and the North Softball Complex approximately 1,650 feet southeast of the Project Substation. Temporary noise impacts may have a minor effect on residences and North Softball Complex from vehicles and equipment noise during Project construction. Noise levels will be minimized by maintaining vehicles and equipment in good condition according to manufacturers' specifications.</p> <p>Operational noise will occur due to corona along the transmission line, which is a low crackling or hissing noise, and from equipment operation at the substation; both noises will attenuate within close proximity to the Project Corridor and will not affect residents or recreationists at the North Softball Complex.</p>	4.1, 6.3, 6.6
Visual		
The visual effect on the adjacent area	Minor impacts. While the Project is an industrial facility being built in a rural area south of Harwood, the transmission line will be built along an existing electrical transmission and distribution corridor, while the substation will be built adjacent to large commercial infrastructure. As such, the Project will not significantly alter the visual effect on the adjacent area based on other development and land use in the area.	4.1, 6.4

Selection Criteria	Potential Effects	Section(s) Addressed
Extractive Resources		
Extractive and storage resources	No impacts. No designated extractive or storage resources occur in the Study Area.	6.6, 6.7
Biological Resources		
Wetlands	No impacts. One wetland occurs within the Project Corridor but will be spanned by the transmission line and not affected during construction or operation.	6.8
Woodlands and wooded areas	No impacts. Trees in proximity to the Project Corridor have been previously impacted as a result of the existing Maple River-Bison Line ROW. Replacement of the structure in the wooded shelterbelt may require minimal amounts of vegetation clearing, but no impacts to trees are expected.	6.6, Figure 5
Animal health and safety	Minor impacts. The Project is located partially within existing utility and transportation corridors and on agricultural land used for cultivated crops. No domesticated animals will be affected, and potential impacts will be limited to minor, temporary construction disturbance of common wildlife accustomed to disturbed areas. Through implementation of no-activity buffers of nesting birds, if present, the Project will avoid significant adverse impacts to wildlife. MPC will construct the Project in accordance with Avian Power Line Interaction Committee (APLIC) guidance as feasible.	1.0, 6.9
Plant life	Minor impacts. The Project is located within previously disturbed agricultural fields with little to no native vegetation remaining.	6.6
Communications		
Radio and television reception, and other communication or electronic control facilities	Minor impacts. Local use of television and radio receivers could experience minor and intermittent interference with sufficient corona activity along the transmission line; the standard use of digital signal processing for television and radio has greatly reduced corona-generated interference.	6.2

Selection Criteria	Potential Effects	Section(s) Addressed
Public Safety		
Human health and safety	No to minor impacts. Project construction and operation will follow industry safety standards for electrical facilities, and any hazardous substances used during construction will be managed and stored outside the Project workspace.	4.6, 6.3

3.4 Policy Criteria

In accordance with NDAC Section 69-06-08-01(6), the Commission may give preference to an applicant that will maximize benefits that result from the adoption of the policies and practices listed in Table 5 and may require the adoption of such policies and practices as appropriate.

Table 5. Policy Criteria

Policy Criteria	Potential Benefits	Section Addressed
Location and design	The majority of the Project Corridor is directly adjacent to an existing transmission line ROW, minimizing impacts to greenfield areas. In addition, a Project Route was selected that results in the shortest possible distance between an available tap with an existing transmission line grid and a primary end user. The transmission line was further designed to minimize impacts to existing infrastructure through the selection of structures that allow the Project to span other utilities, roadways, and a railway.	1.0, 1.4, 4.0
Training and utilization of available labor in this state for the general and specialized skills required	It is anticipated that Project construction will result in the temporary employment of approximately 160 workers from North Dakota.	4.0

Policy Criteria	Potential Benefits	Section Addressed
Economies of construction and operation	The Project involves tying in a short segment of new transmission line into its existing power grid, which will be coordinated with other system activities (e.g., the planned installation of fiber optic). Project components will be obtained from existing suppliers. The integrated Engineer Procure Construct (EPC) contract for the project will be all under one prime contract with a singular contractor having control over all phases of engineering and construction. This approach is generally more cost effective and helps ensure minimized scope gaps and inefficiencies that occur when different contractors are responsible for different scopes.	3.0, 4.0
Use of citizen coordinating committees	The Project is in a rural area, and only three landowners will be temporarily affected by construction, with two landowners being permanently impacted. MPC has coordinated closely with these landowners, having existing transmission line ROWs on two of these impacted landowners' properties. As a result, no citizen coordinating committees are warranted.	1.4
A commitment of a portion of the transmitted product for use in this state	All of the electric energy transmitted by the Project will be for in-state use by CCEC members.	1.0
Labor relations	MPC maintains positive labor relations and does not expect this Project to impact labor relations.	4.5, 6.1, 8.7
The coordination of facilities	The Project is a result of coordination between MPC's existing facilities, CCEC's distribution system, and the distribution member.	1.0, 2.0
Monitoring of impacts	The Project involves the construction and operation of a small segment of new transmission line and substation that will tie into MPC's existing transmission system, and will be monitored as part of that system following construction.	1.0, 4.7

Policy Criteria	Potential Benefits	Section Addressed
Utilization of existing and proposed rights-of-way and corridors	MPC has collocated the Project with existing utilities to the maximum extent practicable, with no less than 82 percent of the proposed Agassiz transmission line either collocated or within existing or proposed transmission line ROW. The majority of the Project Corridor (0.75 mile or 43 percent) is directly adjacent to an existing 230-kV transmission line ROW, while 0.49 mile or 28 percent will be within an existing 345-kV transmission line ROW. Approximately 0.2 mile or 12 percent is directly adjacent to a proposed 345-kV transmission line ROW.	1.0, 3.0, 4.0
Other existing or proposed transmission facilities	The Project Corridor was selected to minimize or avoid impacts to existing transmission facilities in the Study Area, including MPC's Wiser Tap-Maple River / Maple River-Kragnes 69-kV distribution line, and MPC's Maple River-Winger 230-kV transmission line.	1.0, 3.0, 4.0

3.5 Design and Construction Limitations

The Project Corridor is constrained by existing adjacent transmission and distribution lines to the west, a proposed transmission line to the south (Figure 1), and ROWs for Cass County Road 81, I-29, and the BNSF Railroad. The Project Corridor is also constrained by the underlying agricultural land use, impacts to which will be minimized through adjacent collocation with the existing transmission line ROWs, versus a Project Route that fragments the agricultural field by being placed farther away. In addition, the Project tie-in with the existing transmission line is within the Federal Aviation Administration (FAA) Obstruction Evaluation area for Combined Part 77 Surfaces and will require a Determination of No Hazard from the FAA under Code of Federal Regulations (CFR) 77.9. The Project Corridor and Route were selected to minimize impacts to these areas to the extent possible, minimizing route length, and minimizing environmental impacts.

3.6 Economic Considerations

There are many economic considerations in the design and routing of a transmission line and associated facilities. In general, minimizing the length of the route and minimizing the number of angle structures decreases the cost of the transmission line by minimizing the material and construction costs. The selection of materials and structure types also affects the cost of a transmission line. The Project Corridor/Route effectively balances the economic considerations of the overall length of the lines and design with the need to avoid impacts to existing and future land use and avoid/minimize impacts to environmental resources.

4.0 DESIGN AND CONSTRUCTION

4.1 Project Design

4.1.1 Transmission Line

The Project will consist of approximately 1.74 miles of 345-kV transmission line. MPC requests that the Project Route description include a construction buffer extending 20 feet on either side of the route centerline to accommodate unanticipated obstacles encountered during construction. In total, the Project will require 14 new self-weathering steel transmission line structures, consisting of 5 tangent monopole structures, 2 H-frame structures, 2 three-pole dead-end structures, and 5 monopole dead-end structures (Table 6 and Appendix B). Two existing H-frame structures and one existing three-pole dead end structure from the existing Maple River–Bison Line will be removed and replaced to support the expanded wire configuration, including additional transmission conductors and an optical ground wire (OPGW) containing a fiber-optic cable. Impacts to the existing Maple River-Bison 345-kV transmission line will be limited to the point of interconnection and the first structure in either direction.

The new structures will be steel poles, mounted on reinforced concrete foundations with embedded anchor bolts, with an average height of approximately 137 feet, with specific heights ranging from 80 to 180 feet to maintain required clearances over road, railroad, and existing transmission line crossings. Individual poles concrete foundations will range from 9 to 12 feet in diameter, with an average of 9.8 feet. Span lengths will range from approximately 383 feet to 1,069 feet, with an average span of about 654 feet, depending on required clearances at roadway, railroad, and transmission line crossings. Taller structures are planned for crossing existing transmission lines, the roads, and the railroad. The proposed conductor configuration consists of two conductors, each with an approximate diameter of 1.4 inches. The OPGW will function as the overhead shield wire. Appendix B provides the typical schematic configuration of the single-pole structure, H-frame structure, and dead-end structures, respectively. The proposed conductor configuration consists of two 1272-kcmil ACSR phase conductors, each with an approximate diameter of 1.4 inches.

Project construction and design will meet the requirements of the National Electrical Safety Code (NESC) and other applicable local or national building and electric codes. Table 6 includes a description of various Project transmission line design component characteristics.

Table 6. Transmission Line Design Components

Description of Design Component	Values
Voltage (kV)	345 kV
Length of transmission line	1.74 miles
Total number of structures	14
<i>Number of tangent monopole structures</i>	5
<i>Proposed number of H-frame dead-end structures</i>	2
<i>Number of three-pole dead-end structures</i>	2
<i>Number of monopole dead-end structures</i>	5
Conductor size	1.4" diameter per wire
Typical minimum and maximum span distances between structures	383 to 1,069 feet
Average span	654 feet
Minimum and maximum structure height	80 to 180 feet
Average height of structures	137 feet
Minimum and maximum structure foundation diameter	9 to 12 feet
Average structure foundation diameter	9.8 feet
Average number of structures	8 per mile
Minimum conductor-to-ground clearance	31 feet to ground, 31 feet to roads, 39 feet to railroad, 19.3 feet to other transmission & distribution lines

4.1.2 Substation

MPC has purchased a 45-acre property east of I-29 for the Agassiz Substation (Figure 1). The substation will include a 345/34.5-kV collector substation within an approximately 15-acre fenced yard (Figures 3a and 3b). The substation will use chain-link perimeter fencing, LED flood lights, a gravel yard surface, two gravel access drives from 64th Avenue N, and a third gravel access drive from 45th Street N. A stormwater swale consisting of approximately 5-acres will be constructed along the northern, eastern, and southern perimeters of the Agassiz Substation. The swale will be designed to convey and temporarily detain Project-related stormwater generated during 100-year or greater precipitation or flood events, consistent with applicable stormwater management requirements. Culverts will be installed beneath the proposed access drives to maintain uninterrupted stormwater conveyance and hydraulic continuity. A prefabricated one-story control enclosure will house the protection, relaying, metering, Supervisory Control and Data Acquisition (SCADA), station service, and communication equipment, including fiber-optic terminations.

The transmission line and substation will use a SCADA system to relay messages between interconnection points and the substation. Hard-wire system communications will use fiber optics within the OPGW, and microwave communications equipment will be

installed for SCADA redundancy and to facilitate voice and data communications by field personnel. The Project includes the necessary fiber upgrades to continually allow the segment to interconnect with and use the broader transmission line SCADA system during operations.

Table 7 includes a description of various substation design component characteristics. The substation will be developed as a four-breaker ring bus configuration designed to accommodate one 345-kV transmission line termination, two 345/34.5-kV transformer positions, two 345-kV capacitor banks, and associated 345-kV and 34.5-kV switching and protection equipment. Major substation components will include two 345/34.5-kV power transformers, six 345-kV circuit breakers, eight 34.5-kV feeder circuit breakers, twelve 345-kV manual disconnect switches, four 345-kV motor-operated disconnect switches, eighteen 345-kV coupling capacitor voltage transformers, fourteen 34.5-kV potential transformers, one 167-kVA station service voltage transformers, two 345-kV capacitor banks, and the control enclosure measuring approximately 60 feet by 24 feet.

Operational noise levels emitted from the substation at the perimeter fence are expected to remain below approximately 50 A-weighted decibels (dBA). Noise from the substation is primarily driven by the 120-hertz hum of the power transformers, with momentary noise produced during circuit breaker operations. The substation will be energized initially through a CCEC distribution feed and will transition to the 345-kV bus once available, with the CCEC distribution feed being retained as a backup power source. LED flood lighting will be used for operational illumination. Final grading, foundation design, yard fill type and volume, and detailed equipment placement will be confirmed during final engineering to ensure compliance with PSC requirements, NESC clearances, and site-specific conditions.

Table 7. Substation Design Components

Description of Design Component	Values
Substation components and voltage	(2) 345/34.5 kV power transformers, (6) 345 kV circuit breakers, (8) 34.5 kV feeder circuit breakers,, (12) 345 kV manual disconnect switches, (4) 345 kV motor-operated disconnect switches, (18) 345 kV coupling capacitor voltage transformers, (14) 34.5 kV potential transformers, (1) 167 kVA station service voltage transformers, (2) 345 kV capacitor banks, and (1) one-story enclosure.
Fencing material	Chain link
Substation surface material (gravel/concrete)	Gravel
Substation fill type	The substation site is anticipated to utilize a combination of existing native fill and imported engineered fill, as appropriate, to achieve final grades and meet geotechnical performance requirements. Imported materials may include non-frost-susceptible fill, Class V aggregate, and/or crushed rock.
Estimated substation fill volume	Approximately 170,000-190,000 cubic yards
Stormwater swale	Soil substrate
Access Drives surface material	Gravel
Operational noise level at 50 feet	Electrical equipment inside substations typically create noise during the course of normal operation. This primarily comes from power transformers which creates an audible hum of 120-hertz that is typically less than 50 dBA along the substation perimeter fence. Other equipment such a circuit breakers will infrequently create momentary noise when opening or closing.
Power source	Initially by CCEC via distribution feed, later will be fed from 345kV bus.
Operational lighting/type	LED flood lights

4.2 Project Access

Construction and operational access to the substation will require three new permanent access drives that will be MPC-owned and maintained. Two of the access drives will connect the substation to 64th Avenue N, and one to 45th Street N. The permanent access drives will introduce approximately 1.1 acres of impervious surface in the Project Corridor. Construction access to the new transmission structures will require the use of an existing private access drive connecting 52nd Avenue N to an agricultural field as a temporary off-ROW access road (temporary access road). The temporary access road will require approximately 0.5 acre of temporary disturbance.

The permanent access drives will be maintained with a gravel or aggregate base; the temporary access road will use a gravel or aggregate base in the existing roadway, along with timber mats in the agricultural field, as needed. Temporary overland access trails

between structure sites will not require new construction but will result in temporary minor disturbances to an agricultural field in the Project Corridor and Construction Workspace (see Section 4.3). Once construction is completed, the temporary access road and temporary overland access trails will be restored to their pre-construction condition, allowing agricultural activities to continue beneath the transmission line.

Temporary overland access routes were evaluated through desktop review and, where necessary, field surveys to identify potential natural and cultural resources. More information on the field surveys conducted can be found in Section 6.0.

4.3 Construction Workspace

Temporary construction activities for the transmission line are anticipated to result in ground disturbance within the entire 150-foot-wide proposed ROW for structure installation, stringing activities, and overland travel, including crane walks. Greater impacts will occur within discrete construction workspaces at each structure location to allow efficient delivery, assembly, and installation of poles, conductors, and associated hardware (see Sections 4.4 and 4.5). The area will not be graded and will act as a staging point for equipment to drill and set poles.

While most construction activities will be confined to the Project ROW, MPC will require the use of ATWS outside the Project Corridor for pullback and tensioning sites at various points along the Project Corridor, as well as the temporary access road and a travel corridor/workspace at the southern end of the Corridor (see Figures 3a and 3b). MPC will secure temporary construction easements with landowners for these areas (to the extent not covered by an existing easement or owned by MPC).

Construction laydown areas for the substation will be located within the MPC substation property. Laydown areas will be used for equipment staging, foundation materials, and assembly activities. Substation construction will require temporary workspace outside of the proposed fenceline to construct the stormwater swale surrounding the substation to the north, east, and south; construct the access drives, and conduct other construction activities.

Estimated temporary workspace requirements associated with Project access and construction activities are identified in Section 4.4.

4.4 Estimated Temporary and Permanent Impacts

Permanent impacts are those required to host facilities needed for Project operations, consisting mostly of individual structure locations. Permanent land disturbance has been estimated for steel monopole structures, H-frame structures, and dead-end structures. In addition, permanent impacts will be needed to accommodate the substation and substation access drives.

Temporary impacts are impacts associated only with Project construction that will be removed and/or reclaimed, as needed, once construction is completed. This includes

temporary disturbance areas around structures, stringing areas, crane walks, and one overland access area.

Estimated temporary and permanent ground disturbance impacts are provided in Table 8 below.

Table 8. Estimated Temporary and Permanent Impacts

Project Component	Detailed Components	Permanents Impacts (acres) ^a	Temporary Impacts (acres)
Project Corridor	Includes overland travel, crane walks, and construction activities around structures	N/A (permanent impacts associated with features in the Project Corridor are detailed below)	69.2
Transmission Structures	5 tangent monopole, 2 H-frame, 2 three-pole dead end, and 5 dead-end monopole structures	<0.1	N/A (accounted for in Project Corridor Temporary Impacts)
Fenced Substation Yard	See Section 4.1.2 for detailed components	15.0	
Substation Access Drives	Three (3) permanent access drives	1.1	
Substation Stormwater Swale	One (1) stormwater swale surrounding the substation yard	5.0	
ATWS	Six (6) pull-back / tensioning sites, additional access/workspace, and one (1) temporary access road	0.0	8.7
TOTAL (acres)		21.1	77.9
^a Permanent impacts represent permanent ground disturbance and do not account for the permanent change in land ownership for the 69.2-acre Project Corridor.			

4.5 Construction Activities

Transmission line construction will generally follow a sequential set of activities performed by crews proceeding along the length of the line. The sequential nature of construction will minimize activities at a given work site. MPC estimates that approximately 160 construction personnel will be required to construct the Project. The activities involved in Project construction are discussed further below.

4.5.1 Pre-construction Surveying

Surveys completed to date include a raptor nest survey, cultural resource investigation, and geotechnical survey.

The raptor nest survey was conducted in December 2025 within a 1.0-mile-wide Study Area (see Section 6.9).

The cultural resource investigation consisted of a Class III archaeological field survey (Class III cultural survey) with a 300-foot-wide Study Area centered on the Project Route in November 2025 (see Section 6.5). The 2025 Class III cultural survey was conducted based on a preliminary design. Design changes since this time resulted in portions of the Project Corridor and Workspace that occur outside the 2025 Class III cultural survey Study Area, which was assessed through a Class I literature review in December 2025.

Geotechnical borings were completed in the summer and fall of 2025 at the proposed substation and transmission structure locations to characterize soil stratigraphy, groundwater conditions, and bearing capacity for foundation design. More information on the proposed geotechnical surveys is available in Section 4.5.3.

Desktop assessments were conducted to identify the potential presence of other resources using publicly available data, including general and sensitive species habitats and wetlands and waterbodies (see Section 6.8). The findings from pre-construction field surveys and desktop assessments were reviewed to identify any potential impacts on sensitive resources, as discussed in further detail throughout.

4.5.2 Site Preparation

It is anticipated that at some proposed transmission line structure locations, temporary grading of small areas may be required to level the ground surface to allow the safe operation of the equipment with respect to outriggers. Blading will be confined to the Project Corridor and will be accomplished using skid steers. Topsoil disturbed during leveling will be segregated and stockpiled during construction. The Project Corridor is relatively flat, and minimal grading is anticipated to be needed.

Site preparation for construction of the substation includes stripping and removal of topsoil. Subsequently, the substation pad will be graded to establish a central east–west ridge, with finished grades sloping north and south toward perimeter swales. These swales will convey stormwater runoff to the detention basin constructed as part of the large-load member’s stormwater management system. Final site preparation activities are anticipated to require approximately 78,000 cubic yards of common fill. The majority of this material will be placed as a 3–5-foot base layer within the substation pad footprint, while the remainder will be used to construct embankments for stormwater control and roads for site access. Based on the preliminary geotechnical evaluation of the site, this material is expected to consist primarily of fat clays and silt from local excavation. Above the common fill, a 3-foot layer of non-frost susceptible fill (approximately 70,000 cubic yards total) may be placed within the substation pad footprint to promote drainage. Non-frost susceptible fill is generally considered to be a clean sand or gravel with a <5% passing the No 200 sieve. Above the non-frost susceptible material, a 1-foot layer of NDDOT Class 5 Aggregate (approximately 25,000 cubic yards) will be placed across the substation pad and on all access road surfaces. Following installation of substation equipment, a final 4-inch layer of crushed rock surfacing will be placed across the

substation pad footprint for grounding purposes. Engineering teams are also considering using a larger aggregate (2-inch diameter) as a substitute for a portion of the common fill material to promote additional drainage, while providing additional flexibility on timing of construction due to potential weather constraints.

4.5.3 Borehole Excavation

Crews will use a truck-mounted auger or tracked vehicle equipped with a power auger to drill holes for the transmission line structures along the Project Route and within the Project Corridor, located on MPC-owned property or MPC-leased property. Total disturbance at each structure location will vary depending on terrain and equipment; however, the disturbance will be confined to the Project Corridor.

Also referenced in Section 4.1, borings for the reinforced concrete foundations with embedded anchor bolts will have an diameter of 9 to 12 feet and a depth of 39 to 88 feet deep. The range in foundation depth is determined by the height and structural loading of each proposed structure in combination with site-specific soil conditions. The structures will be lowered by crane into boreholes and the annulus around the structure will be backfilled with crushed granular material or excavated material as needed. Surplus material will be hauled to an approved off-site facility.

4.5.4 Structure Assembly and Erection

Structure components (i.e., structure segments, crossarms, braces, hardware, insulators, and related materials) west of I-29 will be trucked from the either the substation laydown yard or delivered directly to the laydown area adjacent to the structure via temporary construction access suing 52nd Avenue North. Structures east of I-29 will be delivered via the substation laydown yard or delivered directly to the laydown area adjacent to the structure via permanent access drives off 64th Avenue North. Temporary access routes in the Project Corridor will be used in addition to the permanent and temporary access routes. Hardware, insulators, and other appurtenances will be attached to the poles while on the ground at each structure location, within the Project Corridor. Erection crews will place the structure on top of the reinforced concrete foundations with embedded anchor bolts within the borehole using cranes or large boom trucks. The structures will then be plumbed and the hole backfilled, as previously described.

4.5.5 Conductor Stringing and Tensioning

Following structure erection, construction crews will install the conductors and OPGW using standard stringing equipment, including conductor sheave blocks, tensioners, and pullers. The conductor and OPGW will be maintained under controlled tension throughout the stringing process to prevent contact with the ground or other obstacles that could result in damage to the wire or its protective surfaces. Due to the relatively short length of the new transmission line segment, approximately six (6) pulling and tensioning sites are anticipated. These sites will be located within the Project Workspace, generally at dead end structure locations, to accommodate safe and efficient wire handling operations.

Typical stringing equipment will include wire pullers, tensioners, conductor and OPGW reels, and associated sheave blocks.

Six pulling and tensioning sites will be required at dead end structure locations. Stringing equipment generally consists of wire pullers, tensioners, conductor reels, OPGW wire reels, and sheave blocks. After the conductor or OPGW is pulled through each span, the wire will be tensioned and sagged to the appropriate design specifications in accordance with NESC requirements. This process will be repeated sequentially until all conductors and the OPGW have been installed through the sheaves and secured at all structures. Completion of stringing will require access to each structure to clip-in the conductor to insulator assemblies and to attach the OPGW to the structure hardware once final sag is confirmed.

All new line segments will be constructed on private property owned or controlled by MPC; therefore, no members of the public will be present within the Project Corridor during stringing activities.

4.5.6 Reclamation

Following construction of the transmission line, temporarily disturbed areas will be restored in support of compliance with NDCC Section 49-22-09. As noted in Section 4.5.5, excavated subsoil will be hauled to an approved off-site facility. The ground will be restored to the approximate original contours and decompacted with standard farm equipment if needed for plant growth and in coordination with landowners. Vegetation within the Project ROW (outside of the substation property) is expected to return to cultivated crops following completion of the Project.

No reclamation is anticipated for the substation yard since the entire fenced area will be graded, graveled, and compacted. Acreage within the substation property that will not be covered by infrastructure will be seeded with a seed mix based on recommended Natural Resources Conservation Service (NRCS) seed mixes for the area. Site-appropriate perennial riparian vegetation will be established on the banks of the permanent swale. Temporarily affected areas throughout the Project Corridor will be seeded to a cover crop as needed to prevent soil erosion and weed establishment. Definitive reclamation measures will be described in further detail in the Storm Water Pollution Prevention Plan (SWPPP) that will be prepared and implemented prior to initiating any Project ground disturbing activities.

4.6 Construction Environmental Protection, Health, and Safety Measures

4.6.1 Construction Waste Management

Typical waste materials generated from construction activities include miscellaneous lumber and shipping materials used to protect equipment during transportation, paper products, beverage and food-related materials, and sanitary waste. Waste from construction materials and rubbish from all construction areas will be collected, hauled away, and disposed of in an approved landfill in compliance with applicable regulations.

Sanitary waste will be disposed through arrangements with local municipal sanitary waste treatment facilities.

4.6.2 Environmental Protection Measures and Policies

Project-specific mitigation construction and operations measures have been developed to avoid or minimize potential environmental impacts. These measures are discussed under the impact and mitigation sections of each environmental resource discussed in Section 6.0.

4.6.3 Worker Safety and Health Protocol

Human health and safety hazards will be mitigated by complying with applicable federal and state occupational safety and health regulations, NESC regulations, and utility design and safety standards. MPC personnel and contractors will perform activities according to MPC's standard operating health and safety procedures. Prior to beginning work each day, an Authorization to Work, Pre-Task Analysis form will be prepared and discussed. Heavy equipment will be up to Occupational Safety and Health Administration safety standards and personal safety equipment will be required for all workers on site. Any accidents or incidents will be reported to the designated safety officer.

The construction site will be managed to reduce risks to the general public, who will not be allowed to enter any construction areas within the Project site. The highest risk to the general public will be from increased traffic volume on the roadways near or adjacent to the Project as a result of commuting construction workers and transportation of equipment and materials. These impacts will be both temporary during construction and minimal during long-term daily operation of the Project. No residences, businesses, or other structures are located in proximity to the Project. MPC maintains current safety and environmental programs, which will be implemented during Project design and construction. All on-site construction crews will be required to complete MPC safety training prior to mobilizing.

4.7 Operation and Maintenance

The following operation and maintenance activities will be performed throughout the life of the Project.

- Visual ground inspection of lines periodically throughout the year; and
- Aerial patrol of lines yearly.

4.8 Decommissioning

If the transmission line were to be abandoned or rebuilt, decommissioning and removal of structures, conductor, and ancillary equipment will be in accordance with applicable regulations in place at the time.

5.0 SETBACKS

5.1 PSC Requirements

The setbacks used in designing the Project comply with or exceed those required by the Commission. Setbacks were measured from the outermost portion of the transmission line facility to the nearest point of the applicable feature. The Project complies with or exceeds the following transmission line corridor and route criteria exclusion and avoidance areas provided in NDAC Section 69-06-08-02(1)-(2). Table 9 lists the setbacks used in designing the Project.

Table 9. Minimum Setback Distances as Designated by the Commission

Setback Type	Minimum Setback Distance	Nearest Distance to the Project Corridor
The geographic center of an ICBM launch or launch control facility.	1,200 feet	177 Miles
Areas on either side of a direct line between ICBM launch or launch control facilities to avoid microwave interference.	30 feet	177 Miles
Residence, school, or place of business.	500 feet	1,070 feet

5.2 Local Setback Criteria

The Project is authorized as an essential public service installation and considered a permitted use in the City of Harwood ETJ. Similarly, the Project is authorized as an essential service and considered a permitted use in the City of Fargo ETJ (City of Fargo 2025b). MPC will obtain a building permit for the Project substation and structures, as needed, prior to installation. No setback requirements administered by local authorities having jurisdiction applicable to the Project transmission line component were identified (City of Harwood 2025a; City of Fargo 2025b). The Project substation component will be designed to meet applicable City of Harwood yard requirements for the light industrial district per Section 4-0210. Minimum lot requirements for the light industrial zoning district require a front yard of not less than 25 feet along streets. There are no side and rear yard requirements per Section 4-0210 (City of Harwood 2025a).

6.0 ENVIRONMENTAL ANALYSIS

6.1 Demographics and Local Economics

6.1.1 Description of Resources

The Project is located in a rural area in Cass County, North Dakota. The closest incorporated community is the City of Harwood, located northwest of the Project. According to the North Dakota Labor Market Information (NDLMI) Job Service, Cass County's population in 2023 was 196,362 (NDLMI 2025). As of 2023, the City of Fargo was the largest city (incorporated place) in Cass County with a population of 129,064.

The unemployment rate for Cass County in 2023 was 3.0 percent. There were approximately 1,300 job openings in Cass County in December 2025. The top three industries in Cass County are educational services, health care, and social assistance; retail trade; professional, scientific, and management; and administrative and waste management services (U.S. Census Bureau [USCB] 2025). The median household income in Cass County was \$76,056 in 2024, which is slightly lower than the statewide median household income of \$77,871.

6.1.2 Impacts/Mitigation

Construction and operation of the Project will have positive economic impacts for the local population and will not affect long-term population trends. No residents will be displaced, and existing agricultural land in the majority of the Project ROW west of I-29 will be returned to agricultural production after Project completion.

MPC will work with local contractors in Cass County to carry out construction of the transmission line and substation to the extent feasible, and wages paid to their employees would contribute to the personal income of the region. It is anticipated that Project construction will temporarily require approximately 160 workers. Expenditures made for equipment, energy, fuel, operating supplies, and other products and services will benefit businesses in the county and state. The build-out of additional electrical infrastructure will also support further development in the vicinity of Harwood and Fargo.

No effects on permanent housing are anticipated. During construction, estimated to take approximately 6 months, out of town laborers will likely commute or use lodging facilities in and around the cities of Harwood and Fargo.

6.2 Public Services

6.2.1 Description of Resources

Local Government Services

The Study Area is primarily rural and contains a network of established roads and utilities that provide access and necessary services to the rural community. The Project Corridor is located in Reed Township; however, regulatory jurisdiction lies with either the City of Harwood or Fargo since different portions of the Project Corridor are within the ETJ of both cities.

Most of the Study Area is within the ETJ of Harwood, which provides local government services through a small city administration and partnerships with county and regional agencies. Harwood has an elected mayor and city council that oversee municipal functions including public works, water and sewer services, and community planning. Fire and emergency response in Harwood is delivered by the Harwood Area Fire & Rescue, a volunteer fire and rescue department that responds to fire and medical emergencies (City of Harwood 2025b). Law enforcement for Harwood residents is primarily provided by the Cass County Sheriff's Office (Cass County 2025b). Public education for Harwood

residents is served by the West Fargo Public School District (West Fargo Public Schools 2026). No schools, hospitals, or other public facilities occur in the Study Area.

North Dakota Trust Lands are state-owned lands granted at statehood and managed by the North Dakota Board of University and School Lands to generate long-term financial support for public education and other designated beneficiaries. The Study Area does not contain any North Dakota Trust Lands (North Dakota Geographic Information Systems 2026).

Transportation

Transportation corridors located within the Study Area consist of the BNSF Railroad and Reed Township roads, city roads, county roads, private roads, and I-29. Roads within the Study Area fall under the NDDOT District Boundaries of Fargo, North Dakota.

Air Traffic

The closest airport/airstrip is the Jacob Gust Airport private airstrip approximately 2.4 miles away. The nearest airport certified for commercial carrier operations is the Hector International Airport, approximately 3.0 miles away. Spray planes (crop dusters) used for aerial application of pesticides or fertilizer are not expected to operate within the Study Area due to the presence of the existing transmission lines.

Water Supply

Water supply for residential use in rural areas and townships generally comes from private wells. Agriculture in the Study Area is nonirrigated cultivated cropland, so there is no need for an irrigation water supply. Additional information pertaining to water use in the Study Area is provided in Section 6.8, including the presence of a community source water protection area.

Communications

One mobile communications tower, under licensee Cass Rural Water Users, is located approximately 1,400 feet northeast of the Project, just north of the Fargo Softball Complex. This tower is approximately 25 feet in height.

Electrical Utilities

MPC is the wholesale power supplier to CCEC. CCEC serves residential, commercial, agricultural, and industrial member-consumers in the Study Area. As noted, MPC owns and operates two existing electrical transmission lines, including the Maple River to Winger and Maple River to Bison Lines, and one distribution line in the Study Area, the Wiser Tap-Maple River / Maple River-Kragnes 69-kV Distribution Line. An additional distribution line occurs in the western portion of the Study Area (Figures 1, 3a, and 3b).

Military Resources

The Project is located approximately 177 miles south of the nearest ICBM launch or launch control facility. On January 5, 2026, the U.S. Department of Defense / Department of War (DOD/DOW) responded to MPC's introduction letter and requested additional information for an informal energy project review (see Section 8.11.6). MPC provided the additional information on January 6, 2026.

6.2.2 Impacts/Mitigation

Local Government Services

Project construction and operation will not have a significant effect on local government services. Project construction and operation could warrant the need for emergency services in the event of an incident; however, the need would be rare and typical of the current needs of the community. Other government services, such as the public school system, will not be affected.

Transportation

Project construction will temporarily increase traffic on local roads, particularly 52nd Ave N, 45th St N, 64th Ave N, County Road 81, 76th Ave N, and 57th St N (Figure 1). Construction access to the substation will be via three new access drives connecting to existing City of Harwood roadways: one access drive will connect to 52nd Ave N and two to 64th Ave N. MPC will obtain a Harwood Driveway License from the city prior to construction and comply with applicable license conditions. Construction of access drives on the two roads and line installation across I-29, County Highway 81, and the BNSF Railroad may cause a temporary disruption to traffic. All necessary provisions will be made to conform to safety requirements for maintaining the flow of local traffic, and construction activities will be conducted to offer the least possible obstruction and inconvenience. MPC will coordinate with the appropriate jurisdictional entity regarding road use, maintenance, and repair during construction, as needed.

The transportation of materials and equipment will be conducted in accordance with NDDOT, North Dakota Highway Patrol, and Cass County regulations. Should any vehicles exceed specified size or weight restrictions for travel on County Highway 81 and I-29, the responsible contractor will obtain Oversize/Overweight Permits from Cass County and the North Dakota Highway Patrol, respectively, and comply with applicable permit conditions. The transmission line will span County Highway 81, I-29, and the BNSF Railroad. MPC will acquire applicable permits for the three crossings, including a county Utility Permit from Cass County, a state Utility Occupancy Permit from the NDDOT (also see 8.11.2 and Appendix F for an NDDOT comment), and a Wire Crossing Permit from the BNSF Railway. MPC and its contractors will comply with design and construction permit conditions to avoid adverse impacts to the transportation corridors. Temporary disruptions to traffic could occur on the roadways and railroad during line installation and will be coordinated with Cass County, the NDDOT, and the BNSF Railway, as appropriate.

The City of Fargo provided comments regarding a potential future road relocation and expansion project in the Study Area on December 29, 2025. No impacts due to the Project are anticipated at this time; see Section 8.11.1 for additional information.

Air Traffic

Project structures will range in height between 80 and 180 feet tall, with an average height of 137 feet above ground level. Temporary construction cranes could range between 150 and 199 feet in height. Determinations of no hazard will be sought from the FAA for any permanent or temporary structures exceeding notice criteria, as noted in Section 3.5. Structures and construction equipment will have the necessary lighting and marking, if required by the FAA.

Water Supply

Construction will result in a negligible reduction in the local water supply. Water supply demands associated with the Project are expected to be limited and temporary. During construction, small volumes of water may be used intermittently for dust control on roads and Project Workspace as needed to maintain safe working conditions and minimize fugitive dust. Construction water will be obtained from adjacent municipal water systems (Harwood or Fargo) and brought in via water trucks. Concrete will be mixed at a commercial facility and trucked to the Construction Workspace. Routine operation of the transmission line and substation will not require a dedicated water supply. An analysis of impacts on surface water and groundwater, including private wells and the community source water protection area, is provided in Section 3.2.

Communications

Existing telephone and fiber optic cables within the Project Corridor will be located in the field by the respective utility companies prior to construction to ensure that impacts to telephone and fiber optic cables will be avoided. Activities associated with the installation of the fiber optic line on the Maple River–Bison Line are outside the scope of this Project and are not subject to PSC jurisdiction. The proposed transmission line and substation are not expected to result in physical, operational, or electromagnetic impacts to the nearby mobile communications tower located east of the Project.

The corona-induced broadband electromagnetic radiation (EMR) from transmission lines can produce interference with some communications signals if there is an overlap in the signal and EMR frequencies. Broadband corona EMR discharge typically occurs in the frequency spectrum from below 100 kilohertz to approximately 1,000 megahertz, which overlaps with the frequencies used for AM and FM radio and some television signals.

With sufficient corona activity, some radio and television interference can be noticeable; however, the radio sound generated by a transmission line is very low in power and interference is generally only experienced in very close proximity to the transmission line. These effects are most pronounced directly underneath the line conductors and decrease with distance from the transmission line. The level of interference with reception of a radio

signal also depends on the relative locations of the radio transmitter, the radio receiver, and the transmission line. A transmission line that is directly between a radio transmitter and a listener's receiver may be more likely to interfere with that listener's reception, whereas a transmission line behind or beside the listener in relation to the transmitter will not necessarily cause interference depending on the radio receiver's antenna.

As digital signal processing has been integrated into television and radio receivers, the potential interference impact of corona-generated radio sound has been further reduced. Moreover, the advent of cable and satellite television service, and the federally mandated conversion to digital television broadcast in June 2009, have greatly reduced the occurrence of corona-generated interference. Newer digital television receivers are equipped with systems to filter out interference.

Electrical Utilities

The Project has been designed to minimize impacts to the existing electrical transmission and distribution system in the Study Area by spanning existing lines. In addition, MPC has planned the outage of its Maple River to Bison transmission line to install the tap for the proposed Agassiz Transmission Line to minimize the potential for service disruptions to its customers.

Military Resources

The Project will have no impacts on military resources based on the distance to the nearest ICBM launch or launch control facility. MPC will continue to coordinate with the DOD/DOW to avoid or minimize potential impacts to military resources.

6.3 Public Health, Welfare, and Safety

6.3.1 Description of Resources

Safety and health risks to the public from Project construction and operation will generally be minimal given the rural landscape and low population density in the Study Area. Project construction and operation will follow industry safety standards for electrical facilities.

Sound

The Study Area is primarily agricultural. There are two populated cities adjacent to the Study Area. The nearest residence to the Project Corridor is approximately 0.2 mile away, and on the far side of the wooded shelterbelt. Other potentially noise sensitive areas include the North Softball Complex and a residence approximately 0.3 mile and 0.9 mile from the substation, respectively (see Figure 3b).

The existing acoustic environment is defined primarily by sound from agricultural traffic and other highway and road traffic. In addition to anthropogenic sound sources, the windy conditions of this site define a somewhat elevated ambient sound level, which increases with wind speed. Windy conditions can generate sound caused by the rustling of grass

and tree leaves. Background noise levels are typically about 30 dBA during the day in rural areas and 55 to 65 dBA 1,000 feet from the edge of a highway (the approximate distance of the substation from I-29) (American Association of State Highway and Transportation Officials [AASHTO] 2025).

Corona from the existing transmission line conductors can generate electromagnetic “noise” at the same frequencies transmitted by radio and television signals. Corona consists of the breakdown or ionization of air within a few centimeters of conductors and hardware. The sound is most noticeable when conductors are wet because of precipitation.

Aeolian vibration can also produce noise and occurs when a steady flow of wind interacts with an object such as a transmission line. Wind must blow steadily and be perpendicular to the lines to set up oscillating forces. The resulting vibration can produce resonance if the frequency of the vibration matches the natural frequency of the line.

Electromagnetic Fields

Power frequency electromagnetic fields (EMF) are created wherever electricity flows. Leading U.S. and international scientific organizations, such as the National Cancer Institute and the World Health Organization, have evaluated EMF research. These organizations generally conclude that overall, the body of scientific research does not show that exposure to EMF causes or contributes to any type of cancer or any other disease or illness (National Institute of Environmental Health Sciences [NIEHS] 1999).

Hazardous Materials / Hazardous Waste

Potential hazardous materials may exist in rural areas from farm dumps and agricultural chemicals. No indications of hazardous substances, solid waste disposal, fuel storage tanks, or other similar potential hazards were identified during a 2025 Phase 1 environmental site assessment that covered the Study Area (Braun Intertec Corporation [Braun] 2025).

6.3.2 Impacts/Mitigation

Sound

Project construction may cause temporary sound impacts due to construction vehicles and equipment for approximately 6 months. As noted above, the Project is located in a rural area with existing agricultural operations. Construction equipment noise levels (e.g., from a diesel engine) will attenuate with distance and are typically about 85 dBA at 50 feet (AASHTO 2025). Noise attenuates at approximately 7 dB for each doubling of distance in an agricultural landscape with a flat topography (Federal Highway Administration 2017). Therefore, construction noise should attenuate to at least 50 dbA at the nearest noise sensitive areas, which are over 1,000 feet away. This sound level is relative to that in a quiet restaurant, or from a dishwasher in an adjacent room (Federal Highway Administration 2017; AASHTO 2025). Vehicles and equipment will be

maintained in good condition in accordance with manufacturer's specifications. Thus, while the Project will generate sound, the impacts will be minimal and temporary.

Operational noise sources will primarily be from the substation, along with minor noise effects from corona discharge and aeolian vibration (discussed further below). Noise levels at the substation yard boundary during operation are typically about 50 dBA, which will attenuate to background levels at the nearest noise sensitive areas, as described above. Noise levels from infrequent Project maintenance vehicles and equipment will be minimal.

Corona effects and aeolian vibration from the new transmission line will be similar to those from the existing transmission lines in the Study Area. Measures such as carefully handling the conductor during construction to avoid nicking or scraping or otherwise damaging the surface and using hardware with no sharp edges or points are typically adequate to control corona. The sound is most noticeable when conductors are wet because of precipitation. Both corona effects and aeolian vibration are expected to be low enough that no objectionable audible sound will result outside the Project Corridor. The resulting vibration can produce resonance if the frequency of the vibration matches the natural frequency of the line.

Electromagnetic Fields

Many studies of EMF have been conducted, but none has identified a cause-and-effect relationship between EMF exposure and health effects or a mechanism by which EMF could cause disease (NIEHS 1999). No impacts from EMF are expected.

Hazardous Materials/Hazardous Waste

No contaminated soils are likely to be present in the Project Workspace that could be disturbed or released by Project activities. Fuels, hydraulic fluids, and other hazardous substances may be used during Project construction. Main power transformers and other electrical equipment at the Project substation will use insulating oil for cooling and electrical insulation, and an approximately 1,000-gallon temporary aboveground storage tank will be used on site at the substation during construction.

As with any construction activity, there is the possibility of accidentally spilling fuel, hydraulic fluid, or other hazardous substances during Project construction. The risk of such a spill affecting public health, welfare, and safety will be minimized through compliance with Section 311 of the Clean Water Act (CWA), which requires facilities storing over 1,320 gallons of oil, or that "have a reasonable expectation of an oil discharge to water," to develop a Spill Prevention, Control and Countermeasure (SPCC) Plan (40 CFR 112). Equipment refueling will take place approximately 100 feet away from surface waters to the extent practicable, including the wetland and drainage that occur in the Project Corridor. The temporary aboveground fuel storage tank will have secondary containment and likewise be placed approximately 100 feet from a detention pond that is west of the substation property. In addition, construction equipment will be equipped with spill cleanup kits consistent with industry best practices. Given the distance from nearby

surface waters and with spill control measures in place, it is not expected that Project construction would have a discharge of oil or other hazardous substance to water from vehicles and equipment.

Since the Agassiz Substation will contain greater than 1,320 gallons of oil in its transformers during operation, an SPCC Plan will be required for the main power transformers and other oil filled equipment (regulators, breakers, bushings, and other equipment) located within the Project substation. The SPCC Plan will be prepared and implemented in accordance with 40 CFR Part 112 to address proper storage, cleanup, and disposal of oil products associated with the substation. In accordance with the SPCC Plan, secondary containment features, such as oil containment basins or pits, will be incorporated into the substation design to prevent releases to soil or surface waters. Monitoring, transportation, and handling of oil or oil-containing equipment will be performed exclusively by trained and qualified personnel following established protocols and in compliance with all applicable U.S. Environmental Protection Agency (EPA) regulations. These measures will ensure that surface and groundwater quality will not be degraded through inadvertent spillage of contaminants.

6.4 Visual Resources

6.4.1 Description of Resources

There are existing transmission lines and transportation corridors, including a railroad, visible in the Study Area. No residences are located within the Project Corridor; however, 34 are located within the Study Area on the far side of the wooded shelterbelt from the Project Corridor. The nearest residence is approximately 0.2 mile west of the proposed transmission line and 1.0 mile southwest of the substation. The North Softball Complex is also in the Study Area, approximately 0.3 mile southeast of the proposed substation and 0.5 mile east of the proposed transmission line. No public scenic areas occur in the Study Area.

6.4.2 Impacts/Mitigation

Visual and aesthetic impacts will result from construction of the Project. The aesthetic value of a specific landscape varies based on an individual's personal values, experiences, and preferences. The degree of visual contrast will vary based on the viewpoint distance and location in relation to the Project. Impacts are expected to be minor since the Project is adjacent to existing transmission and distribution line corridors and therefore consistent with the existing infrastructure in the viewshed. In addition, the residences in the Study Area are on the far side of the wooded shelterbelt, which will partially screen the Project and further minimize visual impacts.

6.5 Cultural Resources

6.5.1 Description of Resources

On behalf of MPC, In Situ Archaeological Consulting, LLC (In Situ), under the direction of Braun, conducted a *Class III: Intensive Cultural Resources Investigation* within portions of the Project area in November 2025. They also completed an expanded *Class I: Literature Review* and records analysis addressing several Project updates in December 2025.

The Class III cultural investigation was conducted in accordance with the Project site plan current as of November 2025. During the course of Class III cultural investigations, In Situ recorded one historical archaeological site. The site was recommended as not eligible for the National Register of Historic Places and is located outside the Project Workspace. No additional cultural resources were identified within the areas subjected to intensive survey. Based on these results, In Situ is recommending a finding of *No Significant Sites Affected* for the portions of the Project covered under the Class III investigations.

In early December 2025, the Project site plan was updated to include temporary pulling easements, a temporary access road, and the locations of several replacement transmission line poles. An expanded Class I: Literature Review and records search was completed for these additional Project areas. Based on the results of the Class III investigations, the extent of previous disturbance within the updated Project area, and the low probability of intact previously unidentified cultural resources within the updated Project areas, In Situ does not recommend any additional cultural resource survey is necessary for the Project.

The Class I and III analyses and findings are presented in the Project's Cultural Resource Report (Appendix C), redacted to protect sensitive site information. The cultural resource report was submitted to the North Dakota Historic Preservation Office (NDSHPO) on January 6, 2026. As of the date of this document, no response has been received. MPC will continue to coordinate with the NDSHPO to obtain concurrence on the cultural resource findings and to avoid impacts to significant cultural resources within the Project footprint.

6.5.2 Impacts/Mitigation

Based on the results of the Class I and Class III investigations, no impacts to cultural resources due to Project construction and operation are anticipated. MPC has an Inadvertent Discovery Plan that outlines the procedure utilized to address any unanticipated discoveries of cultural resources, including possible human remains.

6.6 Land Use, Vegetation, and Recreational Resources

6.6.1 Description of Resources

Land Use

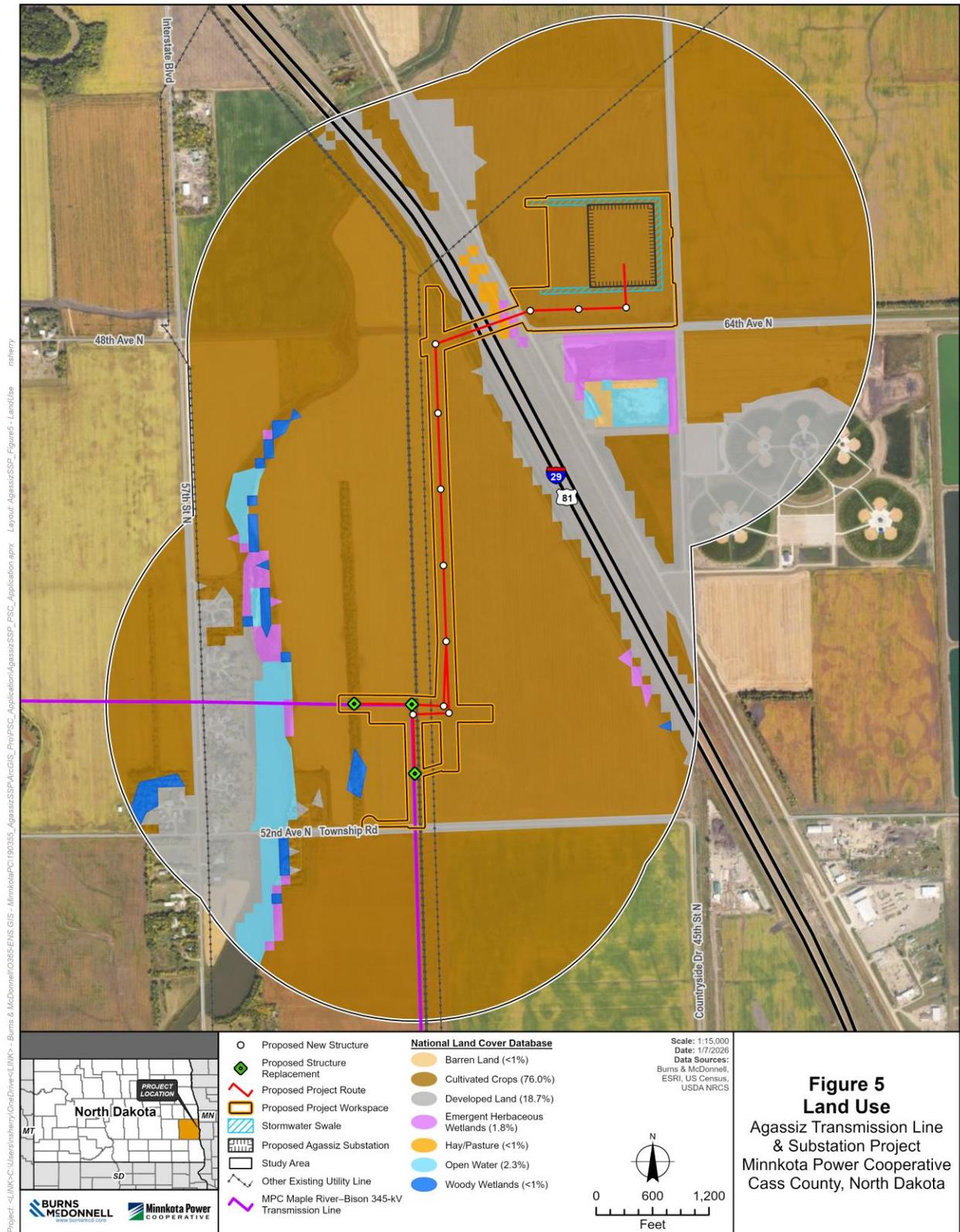
The Study Area is located adjacent to the municipal boundaries of City of Harwood and within its ETJ, while the southern tip of the Study Area (including a portion of the Project Corridor and three structures) overlaps with the City of Fargo ETJ (Cass County 2025; City of Fargo 2025a). MPC has purchased the land for the Project Corridor from two landowners, including a real estate and property management company, which leases the land for farming, and a technology company.

The majority of the Project will be constructed in agricultural fields with the exception of the crossing of the I-29, County Road 81, and BNSF railroad ROWs. Land cover classifications, including acreage within the Study Area and Project Corridor, are shown in Table 10 and Figure 5.

Table 10. Land Cover

Land Cover	Acreage within Study Area	Acreage within Project Corridor
Barren Land	3.2	0.0
Cultivated Crops	1,056.1	66.3
Developed, High Intensity	1.8	0.0
Developed, Low Intensity	103.9	1.4
Developed, Medium Intensity	25.0	0.1
Developed, Open Space	129.1	0.8
Emergent Herbaceous Wetlands	25.5	0.3
Hay/Pasture	2.9	0.3
Open Water	32.3	0.0
Woody Wetlands	9.6	0.0
Total	1,389.4	69.2

Source: U.S. Geological Survey (USGS) 2024



Vegetation

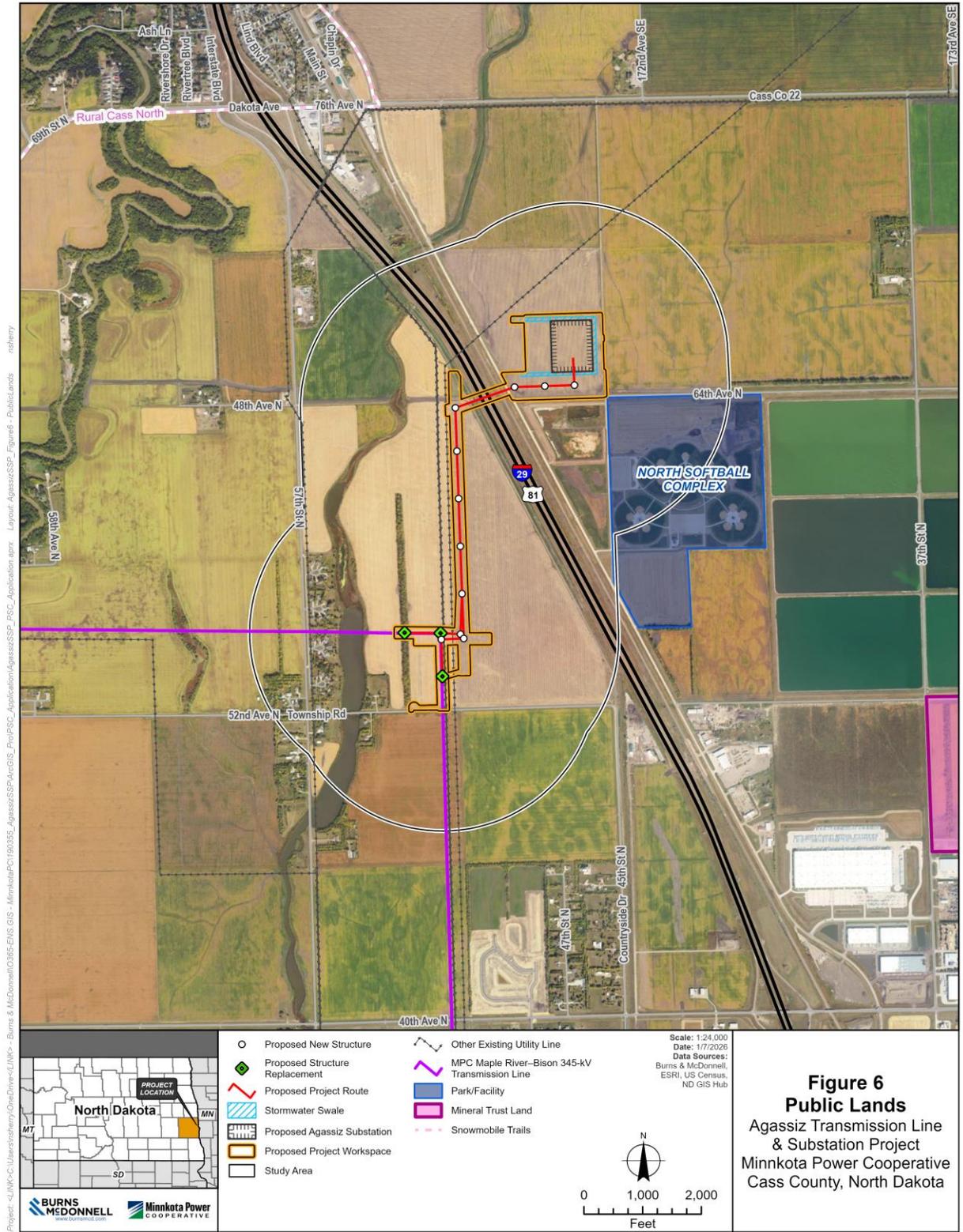
The proposed Project Corridor consists mostly of previously disturbed land used for crop production. Historical aerial photography of the Study Area indicates that the area has been used almost entirely for row crop agriculture since 1941 apart from a small, forested wind break crossed by the southwestern portion of the Project Corridor. Vegetation within the Study Area consists mostly of agricultural crops, including canola, soybeans, and sunflower, with disturbed vegetation in roadside ditches along the I-29, County Road 81, and BNSF Railroad ROWs.

NDCC Chapter 4.1-47 directs the North Dakota Agriculture Commissioner to maintain a state noxious weed list, which is to be updated in collaboration with the North Dakota State University extension service. Thirteen plant species are currently designated as noxious weeds by the North Dakota Department of Agriculture (North Dakota Department of Agriculture 2025). County and city weed boards may develop and compile their own list of noxious weeds in accordance with NDCC Chapter 4.1-47, provided the list includes all weeds determined to be noxious by the North Dakota Agriculture Commissioner. Eleven of the state's noxious weeds are included on Cass County's (2025c) Noxious Weed List: absinth wormwood (*Artemisia absinthum*), Palmer amaranth (*Amaranthus palmeri*), spotted hemlock (*Conium maculatum*), Canada thistle (*Cirsium arvense*), purple loosestrife (*Lythrum salicaria*), musk thistle (*Carus nutans*), diffuse knapweed (*Centaurea diffusa*), saltcedar (*Tamarix* spp.), leafy spurge (*Euphorbia esula*), houndstongue (*Cynoglossum officinale*), and spotted knapweed (*Centaurea stoebe* spp. *micranthos*). All of these species could occur in suitable habitat in the Study Area, including crop fields and roadside ditches.

Recreational Resources

One municipal park is located within the Study Area approximately 1,000 feet south of the Project Corridor, the North Softball Complex, which is owned and operated by the City of Fargo. The complex does not intersect with the Project Corridor. Additional recreational resources in the Study Area include Lake Shure, which is largely surrounded by private property (see Section 6.9). The North Dakota Fish and Game Department (NDGF) does not designate Lake Shure as a fishing area and does not stock Lake Shure with fish (NDGF 2025a). Hunting may occur within the Study Area, depending on landowners' posted signage and access agreements with hunters.

No state-listed wildlife management areas are located in or near the Study Area (NDGF 2025b), and the Study Area does not occur within any national wildlife refuge, national grassland, or other federally managed land. Public Lands in proximity to the Study Area are depicted on Figure 6.



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6.6.2 Impacts/Mitigation

Land Use

The Project will result in minor changes in land use. During construction, the contractor will limit movement in the Project Workspace to minimize disruptions to land use to the extent feasible; however, for the purpose of this analysis, it is assumed that the existing land uses within the full Project Workspace will be temporarily disrupted for approximately 6 months, except where the Project Route crosses I-29, County Road 81, and the BNSF Railroad (see transportation discussion in Section 6.2).

The primary impact on land use will be to agriculture. Construction activities are expected to temporarily disrupt agricultural activities in the Project Workspace for the estimated 6-month construction period. Following construction, the majority of cropland in the Project Workspace west of I-29, approximately 24.0 acres, will be able to return to cultivation. Less than a total of 0.1 acre of agricultural land at the base of transmission structures will be permanently converted to concrete and removed from cultivation (see Section 4.5.3). All cropland in the Project Workspace east of I-29, approximately 44.6 acres, will be permanently converted to industrial use within the substation property.

No permanent impacts to land use will occur to transportation corridors, including where the Project Route crosses the interstate highway, County Road, and BNSF Railroad ROW. The transmission line will span these features in accordance with permit requirements, and no ground disturbance will occur to the aforementioned features.

Vegetation

Vegetation in the Project Corridor and laydown areas does not contain any sensitive plant communities or sensitive habitats; therefore, the Project will not affect sensitive plant communities. Project construction activities will result in the temporary removal or crushing of vegetation in cultivated or fallow cropfields or field edges. Upland, wetland, and riparian vegetation in the Project Corridor and in road and railroad ditches will be spanned and not affected. As noted above, vegetation in the Project Corridor will be allowed to return to crops or restored to preconstruction vegetative cover.

The Project will involve replacing an existing structure in the Maple River to Bison Line ROW where it crosses approximately 120 feet of the wooded shelterbelt in the southwestern portion of the Project Corridor (Figure 5). No tree clearing will be needed for the structure replacement. The ROW in the wooded shelterbelt will continue to be maintained as herbaceous or shrub vegetation for the life of the Project. Existing vegetation within the Project Corridor will be preserved whenever feasible. The spread of noxious weeds will be mitigated through regular sterilization and broad-leaving throughout the Project Corridor. These weed control measures will be implemented annually within the substation, and triennially along the transmission line corridor in accordance with MPC's Vegetation Management Program.

Within the substation property boundary, approximately 16.1 acres of vegetation will be permanently removed for the gravel substation yard and access drives. Approximately 5.0 acres will be revegetated with riparian vegetation in the substation swale, and 23.5 acres will be revegetated with an upland seed mix based on NRCS seed mixes suitable for the area.

The following measures will be implemented to avoid impacts to vegetation within the Project Corridor:

- Wetland and riparian communities will be spanned by the transmission line, thereby avoiding impacts to these plant communities.
- Mulch and seeds used for revegetation, erosion, and sediment control will be certified as weed-free.
- Prior to the initiation of construction activities, construction vehicles and equipment will be thoroughly cleaned to prevent the possible spread of noxious weed seeds within the Project Corridor.
- If state-designated noxious weeds are observed in the Project corridor, populations will be controlled in accordance with MPC's Vegetation Management Program and based on guidance from the North Dakota Weed Control Guide (Ikley et al. 2026). Weed controls may include herbicide applications, which will be applied by a certified herbicide applicator in accordance with label instructions. Mechanical control methods (e.g., mowing) also may be considered for weed control, as appropriate.
- The substation will be sterilized and broad-leafed annually to control weeds within the gravelly areas of the substation, and the bases of transmission structures will be sterilized and broad-leafed triennially in accordance with MPC's Vegetation Management Program.

Recreational Resources

Project construction and operation will have minimal effects on recreational resources in the Study Area. No impacts to publicly available recreational resources will occur based on the distance of the Project Workspace from public lands and city or county parks, including the North Softball Complex.

No impacts to fisheries or other aquatic recreation will occur since no suitable aquatic resources are located within the Project Workspace. Temporary minor disruptions to hunting on agricultural land may occur during construction of the transmission line, along with a minor loss in hunting area where agricultural land is converted to industrial use at the proposed substation property.

6.7 Soils and Geologic Resources

6.7.1 Description of Resources

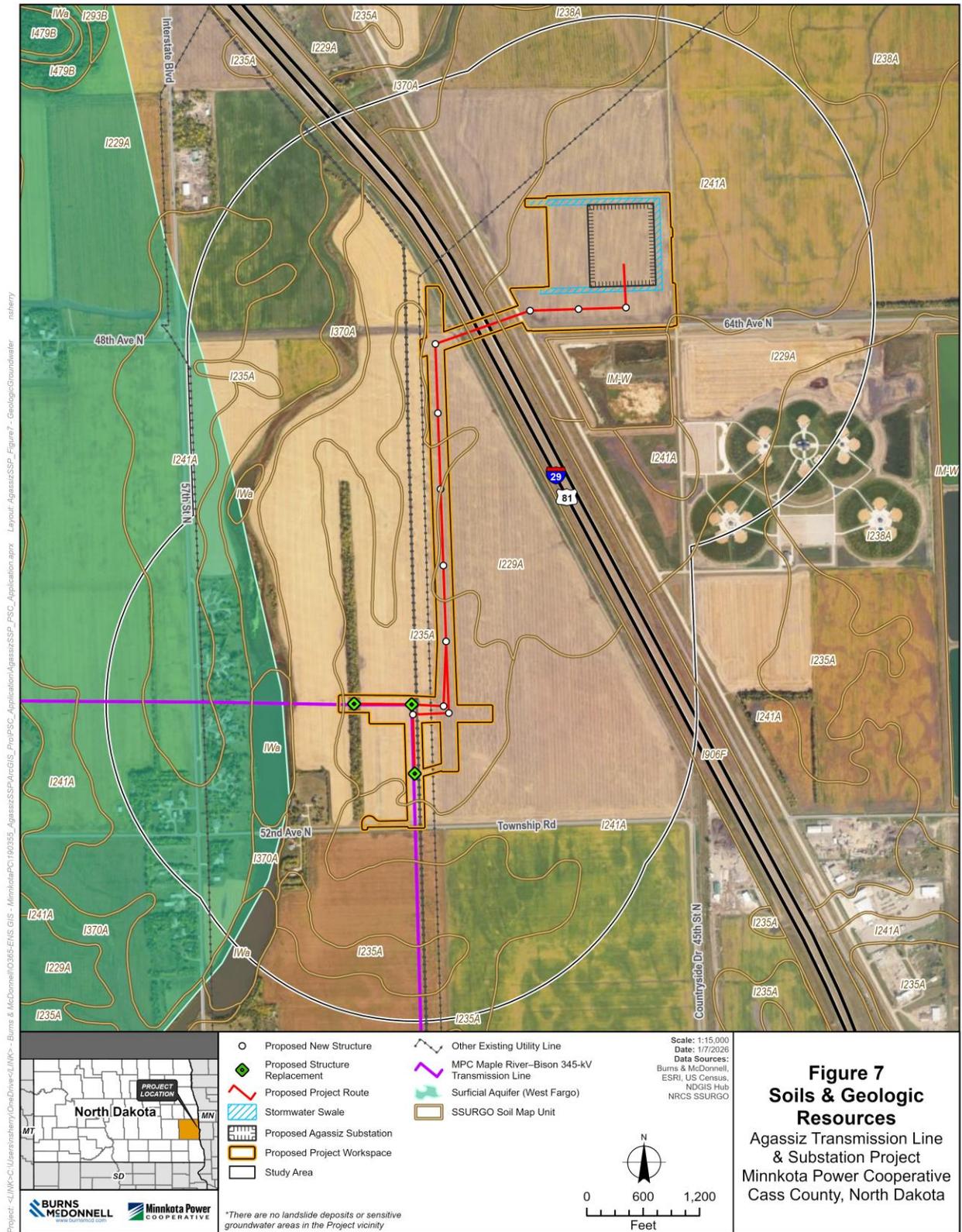
Major Land Resource Areas (MLRAs) represent landscape-level areas with distinct physiography, geology, climate, water, soils, biological resources, and land uses. The Study Area lies within MLRA 56A, the Glacial Lake Agassiz, Red River Valley, characterized by soils with a frigid temperature regime, aquic or udic moisture regime, and mixed or smectite mineralogy. These soils are generally moderately deep to very deep, well drained, and clayey or loamy (NRCS 2022).

Soil map units were assessed using the NRCS Web Soil Survey (NRCS 2025). The dominant soil map unit located within the Study Area consists of Fargo silty clays (I229A; Figure 7 and Table 11). These poorly-drained soils are derived from clayey glaciolacustrine deposit parent material and are characterized by silty clay surface textures. A majority of the soils within the Study Area have been previously disturbed as a result of historical and ongoing agricultural cultivation, and Fargo silty clays are identified as 'prime farmland when drained' by the NRCS. Prime farmland when drained comprises approximately 754.6 acres within the Study Area. In their preliminary review of the Project, the NRCS noted that because the Project is not federally-funded, the Farmland Policy Protection Act does not apply, and no further consideration of prime farmland is required (see Section 8.11.3 and Appendix F).

The Project will be located in the south-central portion of the Glacial Lake Agassiz, Red River Valley MLRA. Cass County is overlain by a thick layer of glacial drift sediment, and no outcrops of pre-Pleistocene rocks are present in the county (Klausing, 1968). In Cass County, glacial drift deposits and Lake Agassiz sediment deposits range between 132 and 447 feet in thickness, averaging 250 feet in thickness.

Table 11. USDA Soil Map Units Within the Study Area

Map Unit Symbol	Map Unit Name	Farmland Classification	Drainage Class – Dominant Condition	Acres in Study Area
I229A	Fargo silty clay, 0 to 1 percent slopes	Prime farmland if drained	Poorly drained	571.5
I241A	Fargo-Ryan, thick solum silty clays, 0 to 1 percents slopes	Not prime farmland	Poorly drained	467.3
I235A	Fargo silty clay, depressionnal, 0 to 1 percent slopes	Prime farmland if drained	Poorly drained	153.3
I370A	Rauville silty clay loam, 0 to 1 percent slopes, frequently flooded	Not prime farmland	Very poorly drained	63.5
I906F	Orthents-Aquents-Urban Land, highway complex, 0 to 35 percent slopes	Not prime farmland	Well drained	63.7
I238A	Fargo-Hegne silty clays, 0 to 1 percent slopes	Prime farmland if drained	Poorly drained	21.9
Source: NRCS 2025.				



6.7.2 Impacts/Mitigation

The Project will not result in a significant change in soil and geologic resources. Most impacts to soils will be temporary. Soil compaction will occur from the use of heavy equipment within the Project Workspace, which could decrease water infiltration and increase stormwater runoff and erosion. However, impacts will be minimal since the landscape within the Study Area is relatively flat and not prone to erosion. The potential for soil erosion off site will be further minimized through compliance with Section 402 of the CWA, which requires any project involving greater than 1.0 acre of ground disturbance to obtain a storm water permit under the EPA's National Pollutant Discharge Elimination System (NPDES) Program (40 CFR 122). In North Dakota, construction activities are permitted by the North Dakota Department of Environmental Quality (NDDEQ) under the North Dakota General Permit NDR11-0000 (NDDEQ 2025a), which include the development of a SWPPP. A SWPPP must include measures to minimize erosion and stormwater runoff from construction areas (NDDEQ 2025a).

Soil compaction can also reduce plant productivity. Soils in the Project Corridor will be returned to pre-construction conditions to the greatest extent possible following construction using standard farm equipment, as needed.

Clearing and grading will take place within the substation workspace to create a level surface for the construction of the proposed substation. Excavation will take place throughout the Project corridor for the construction of the substation and transmission line structures. Grading and excavation will result in the mixing of topsoil and subsoils; however, the disturbed soils will either be used as the base for the substation, or be excess spoil and hauled off-site to an approved facility.

The Project will have no impacts on geologic resources. The North Dakota Geological Survey (NDGS), which tracks information on mineralogical, paleontological, and geochemical resources of the state, provided a comment in response to MPC's introduction letter noting that they had no major geologic concerns with the Project and providing additional resources for the analysis (see Section 8.11.4 and Appendix F). MPC incorporated the resources into this analysis, which includes information describing bedrock geology, surficial geology, and landslide susceptibility. The Study Area does not lie within the lignite-producing regions of North Dakota (USEIA 2025) and does not overlie caves (Murphy 2007) or abandoned mines (PSC 2025). The Study Area does not intersect with recently active landslides or with Pleistocene landslide deposits (Maiké and Anderson 2022).

The proposed Project Corridor consists of lands which have been previously disturbed by historic use for cropland agriculture, and soil composition within this corridor likely differs from soils described in the NRCS Soil Survey Geographic Database. Additionally, agricultural activities will be allowed to resume within the 150-foot-wide Project Corridor following construction, meaning that ultimately, any permanent effects to soils will occur almost exclusively within the proposed substation footprint. A geotechnical analysis of the Study Area was completed in 2025, which did not identify geologically unstable soils.

MPC will implement the following conservation measures for the Project:

- Temporary construction mats will be used where needed in the Project Workspace to minimize rutting and compaction.
- Excess subsoils from structure excavation will be hauled off-site to an approved facility in compliance with applicable regulations. Subsurface rock will be hauled off-site to an approved landfill.
- Erosion and sediment controls (e.g., installation of silt fences, straw wattles, and/or other BMPs) will be established prior to construction, then maintained and controlled in accordance with the Project SWPPP. SWPPP implementation will include regular inspections of areas under construction, material storage and laydown areas, and structural devices for storm water management. All construction personnel will be trained and required to comply with SWPPP's requirements and the maintenance of all environmental protection measures. The SWPPP will be maintained until final stabilization of all disturbed areas has been completed.
- Soils in temporary workspaces will be graded to approximate preconstruction contours and decompacted if needed for plant growth using standard farm equipment.
- Maintenance operations will be scheduled during periods of minimum precipitation to minimize the potential of surface runoff and to reduce the risk of erosion, rutting, sedimentation, and soil compaction. However, emergency repairs to the transmission line may occur during periods of inclement weather. Ruts, scars, and compacted soils resulting from emergency activities will be repaired by subsoiling, para plowing, scarifying, harrowing, or disking, as appropriate.

6.8 Water Resources

6.8.1 Description of Resources

Surface Water and Groundwater

Surface waters include rivers, streams, creeks, lakes, ponds, reservoirs, oceans, or any other body of water found on the earth's surface. Surface water is a part of the larger hydrologic cycle (water cycle), maintained by precipitation and water runoff that can be lost through evaporation, seepage into the ground, or use by plants and animals. Typical beneficial surface water uses include drinking water, public supply, irrigation, agriculture, thermoelectric generation, mining, and other industrial uses.

The Project is in the Upper Red subbasin (Hydrologic Unit Code [HUC] 8: 09020104), which is comprised of 418,979 acres, and the Town of Harwood Subwatershed (HUC-12 090201040505), which is comprised of 12,474 acres. Drainage basins funnel all the streams, snowmelt, and rainfall to a common outlet such as nearby lakes and streams.

Surface runoff from the Study Area will flow into an unnamed tributary of the Red River, located approximately 900 feet west of the Project, downstream of Lake Shure. From there, the tributary continues northeast and ultimately discharges into the Red River about 4.5 miles northeast of the Project.

There are no Section 10 Rivers and Harbors Act jurisdictional waters or 303(d)-listed impaired waters in the Study Area (North Dakota Water Commission [NDWC] 2015; NDDEQ 2025b). Based on a desktop review using aerial imagery, the National Wetland Inventory (NWI; U.S. Fish and Wildlife Service [USFWS] 2025a), and the National Hydrography Dataset (NHD; USGS 2025), only one perennial waterbody occurs in the Study Area, an unnamed tributary of the Red River (Red River UNT) approximately 700 feet west of the Project Workspace. The Red River UNT has been modified by road crossings and is ponded in several areas, the largest of which constitutes Lake Shure. The Red River UNT is classified by NDDEQ as a Category 2 waterway (NDDEQ 2025b), which receives protection from regulated activities that could reduce water quality below a certain threshold under NDAC Chapter 33.1-16-02.1.

Two other surface water features occur within the Study Area as well as the Project Corridor, consisting of an intermittent stream (drainage; Feature 1) along the western ROW of I-29, and a palustrine emergent wetland (Feature 2) between the BNSF Railroad and County Road 81 (see Figure 8). Section 404 of the CWA requires approval from the U.S. Army Corps of Engineers (USACE) before placing dredged or fill material into Waters of the United States (WOTUS), defined to include rivers, streams, ditches, coulees, lakes, ponds, or adjacent wetlands. Under the current definition of WOTUS (Sackett v. Environmental Protection Agency 2023), only the intermittent drainage feature to the west of I-29 would likely be considered jurisdictional based on surface connectivity to a navigable waterway.

Groundwater resources in the Study Area include the West Fargo North Aquifer, which underlies the Red River UNT and Lake Shure (North Dakota GIS Hub 2022). The depth to water for this aquifer is 125 feet. The aquifer occurs approximately 600 feet west of the Project Corridor and has been an important source of water for the area, including Harwood and the City of West Fargo (City of Harwood 2023; City of West Fargo 2016).

Approximately 0.6 mile of the Project route and corridor occur within a community source (ground) water protection area owned by the Lake Shure Home Owners Association (Lake Shure Water Protection Area, System No. ND0901453; North Dakota Department of Health [NDDEH] 2025). Community source water protection areas are zones around public drinking water sources documented by the NDDEQ to help identify and manage potential sources of contamination to the water source (NDDEQ 2025c). Based on the well permit database and online map system, no domestic or municipal wells occur within the Project Workspace (NDWC 2025). The Study Area contains two domestic wells and one municipal well (refer to Figure 9).

The NDDEQ also conducts a susceptibility analysis to determine the susceptibility of the water source to contamination by sources in the community source water protection area.

System No. ND0901453 is identified as not likely susceptible to known contamination sources (NDDEH 2025c).

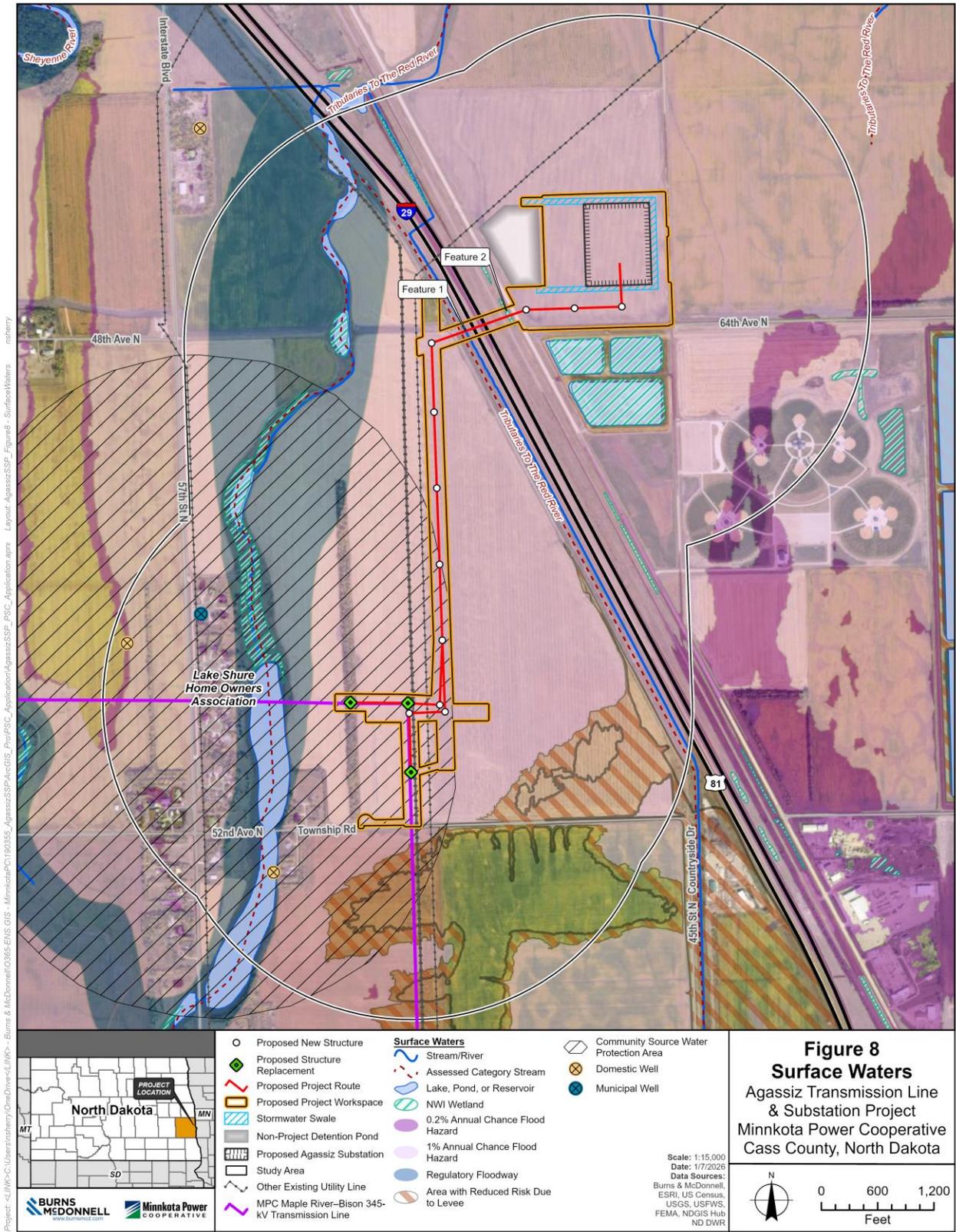
Floodplains

The entire Project Workspace occurs within a 100-year floodplain according to digital data available through the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer Viewer and North Dakota Risk Assessment Map Service through the NDWC (FEMA 2025; NDWC 2025). Approximately 73 percent of the Study Area is within the 100-year floodplain, while the remaining areas occur within the 20-year floodplain (4 percent), regulatory floodway (18 percent), and areas unencumbered by flood hazards (5 percent; see Figure 9).

6.8.2 Impacts/Mitigation

Surface Water and Groundwater

The Project will avoid or have minimal impacts on surface water and groundwater resources. The Agassiz Transmission Line will span and consequently have no impact on the single palustrine emergent wetland and intermittent stream that occur in the Project Corridor. Project Workspace will be separated from the wetland by the highways and railroad. A pull-back/tensioning site in ATWS north of the Project Corridor will maintain at least a 10-foot buffer from the intermittent stream and install erosion controls to prevent stream sedimentation. The closest permanent structure to the intermittent stream is a two-pole dead-end structure located approximately 330 feet to the west, and no access routes or overland travel will cross the stream. Therefore, no filling, excavating, or clearing will occur in these surface water resources. On January 2, 2026, the U.S. Army Corps of Engineers provided a comment in response to MPC's introduction letter, noting that the Project may require a CWA Section 404 permit if any waters or wetlands are impacted (see Section 8.11.5 and Appendix F). Since no waters or wetlands will be impacted, a CWA Section 404 permit is not needed for the Project. On January 8, 2026, the North Dakota Department of Water Resources (NDDWR) requested notification if two regulated water drainage features, a levee and surface drainage, would be affected since permitting requirements could apply (see Section 8.11.7 and Appendix F). As noted above, the surface drainage referred to is the same intermittent stream discussed above, which will not be affected. The second feature, a levee, is east and south of the Project Corridor and will not be affected. Therefore, permit conditions for these features will not apply to the Project.



As noted in Section 6.8, the potential for stormwater runoff from the construction area to reach nearby surface waters and introduce pollutants or cause increased turbidity and sedimentation is low given the relatively flat topography of the Study Area. The implementation of erosion controls and soil stabilization during and after construction in accordance with the Project SWPPP will further decrease this risk, as discussed in Section 6.8. In addition, vehicles and equipment will be maintained in good condition according to manufacturer's specifications, and refueling in Project Workspace will be conducted approximately 100 feet from the intermittent stream to the extent practicable to avoid the incidental release of fuel into surface waters (see Section 6.7). The risk of introducing hazardous substances to groundwater will be negligible since spill volumes will be limited, construction equipment will have spill kits, and workers will be trained in spill control and cleanup in the event of an incidental spill of fuel or other hazardous substance. Should a spill occur, MPC will notify the appropriate agency and/or emergency response authorities. No other hazardous materials will be present in Project workspace during construction.

The potential for oil from the substation to be released to the detention pond or groundwater during operation will be minimized through the implementation of an SPCC Plan, as discussed in Section 6.3.

Concrete will be used in the Project Workspace to set transmission line structure and substation infrastructure foundations. Any excess concrete, along with other construction waste materials, will be removed and disposed of at an approved waste facility in compliance with applicable regulations following the completion of construction activities.

Based on the above analysis and implementation of conservation measures, Project construction and operation will not result in surface water or groundwater contamination in the Lake Shure Water Protection Area or in the West Fargo Aquifer.

Floodplains

Since the Project Corridor occurs within a 100-year floodplain, the substation and transmission structures will be constructed to withstand 100-year flood events to avoid substantial flooding impacts to Project infrastructure. Ground disturbance from construction vehicles and activities may cause temporary compaction and rutting of soils in the floodplain, which could lead to reduced water infiltration and runoff during rain events. However, soils will be restored following construction to the extent feasible with standard farm equipment, with disturbed areas being limited to previously cultivated fields in the Project ROW that will be returned to cultivation, or reseeded to riparian or upland vegetation in the substation property. The presence of transmission structures will result in permanent but negligible impacts to floodplain function. The individual, widely spaced structures will not measurably reduce water infiltration or alter surface flow in the event of a flood.

The substation will reduce water infiltration in the 100-year floodplain on approximately 16.1 acres due to the substation infrastructure and compacted gravel surface of the substation yard and access drives. It could also result in a minor alteration of surface flow

in the event of a flood, although the permeable fence would allow water to move through the substation yard. To mitigate the reduced infiltration within the substation footprint, MPC will construct a swale around the substation to capture and transport stormwater runoff to off-site detention ponds owned and operated by Applied Digital Corporation, LLC. This will allow the water to infiltrate into the surrounding soils.

6.9 Wildlife and Rare and Unique Natural Resources

6.9.1 Description of Resources

General Wildlife

The Study Area occurs primarily within agricultural fields, a small system of lakes associated with the Red River UNT, wetlands, and streams, a residential area, and a linear shelterbelt. Various fishes and other aquatic species such as invertebrates, reptiles, and amphibians likely occur within the nearby waterways. The agricultural fields are annually used for row crops such as canola and sunflowers; therefore, various species likely use the fields for foraging opportunities and bedding for various small and larger mammals, amphibians, and terrestrial reptiles. The wooded shelterbelt would provide ample habitat for both foraging and nesting small mammals and birds.

General species likely to occur in the Red River UNT system within the Study Area include red-eared sliders (*Trachemys scripta*) and northern leopard frog (*Lithobates pipiens*); and the agricultural fields and shelterbelts likely provide habitat to common species such as the white-tailed deer (*Odocoileus virginianus*), white-tailed jackrabbit (*Lepus townsendii*), eastern coyote (*Canus lantrans*), and Franklin's ground squirrels (*Poliocitellus franklinii*) (iNaturalist 2026).

Federally Listed Species

The USFWS administers the Endangered Species Act (ESA), which mandates protection of species federally listed as threatened and endangered and their associated habitats. Under Section 9 of the ESA, it is unlawful for any person to “take” (i.e., harass, harm, pursue, hunt, wound, kill, or capture), possess, or transport, any endangered or threatened species unless permitted by the Act. Section 10 of the ESA authorizes the Secretary of the Interior to issue permits to private entities under specific terms to conduct otherwise prohibited actions that are reasonably certain to result in “take”.

An endangered species is a species that is in danger of extinction throughout all or a significant portion of its range. A threatened species is a species that is likely to become endangered in the foreseeable future. A proposed species is a species that is currently being evaluated by the USFWS to be listed as threatened or endangered under the ESA. Proposed species do not receive protection under Section 9 and 10 of the ESA for non-federal actions. Critical habitat for threatened or endangered species can be designated if that habitat includes specific areas that are occupied by a species at the time of listing or unoccupied areas that are considered essential to the conservation of a species. North Dakota does not have their own state level threatened and endangered species list.

Information regarding wildlife species and habitat within the Project Corridor was obtained from a review of existing published sources and site-specific wildlife and habitat information from the USFWS Information for Planning and Consultation (IPaC) system (Appendix D), and the North Dakota Game and Fish Department file information (NDGF 2025b; pers. comm. Sandra J. 2025; USFWS 2025b). Table 12 identifies three federally proposed species with the potential for occurrence within the Study Area based on the IPaC results. Based on a desktop analysis, the monarch butterfly has potential to occur with the Study Area, while both the Suckley’s cuckoo bumble bee and western regal fritillary would not occur within the Study Area. No proposed or designated critical habitat occurs within the Study Area.

Table 12. Federal Threatened and Endangered Species

Common Name	Status*	Potential to Occur within the Study Area
Monarch butterfly (<i>Danaus plexippus</i>)	PT	Potential to occur; some suitable patches of reproductive and adult foraging habitat, such as ditches and roadsides with common milkweed and other flowering species, as well as flowering crops such as canola and sunflowers, occur in the Study Area.
Suckley’s Cuckoo bumble bee (<i>Bombus suckleyi</i>)	PE	No potential to occur: the Study Area is primarily row crop agricultural fields lacking suitable habitat for the species, which requires grasslands with floral resources that could support other bumble bee host species that it depends on for survival. Furthermore, only historic records for the Suckley’s cuckoo bumble bee are known to North Dakota; the species has not been identified within the state in the last 20 years (USFWS 2024a).
Western Regal Fritillary (<i>Argynnis Idalia occidentalis</i>)	PT	No potential to occur; the Study Area is primarily row crop agricultural fields lacking suitable habitat for the species, which requires native tall grass prairie plant communities.
Sources: Pei et al., 2022; USFWS 2020; USFWS 2024a; USFWS 2024b.		
*Status = PE= Proposed Endangered; PT=Proposed Threatened		

Migratory Birds

The Migratory Bird Treaty Act of 1918 (MBTA; 16 U.S.C. 703-712) prohibits anyone from hunting, killing, or possessing any parts of a migratory bird without a permit issued by the Secretary of the Interior. On April 11, 2025, the Secretary of the Interior issued a memorandum (M-37085) concluding that prohibitions of the MBTA do not apply to accidental or incidental taking of migratory birds. However, this differs from the finding in the most recent court case concerning the MBTA in the 2020 *Natural Resources Defense Council v. U.S. Dep’t of the Interior* of the New York Southern District Court. Therefore, the question of whether incidental take is prohibited by the MBTA remains uncertain.

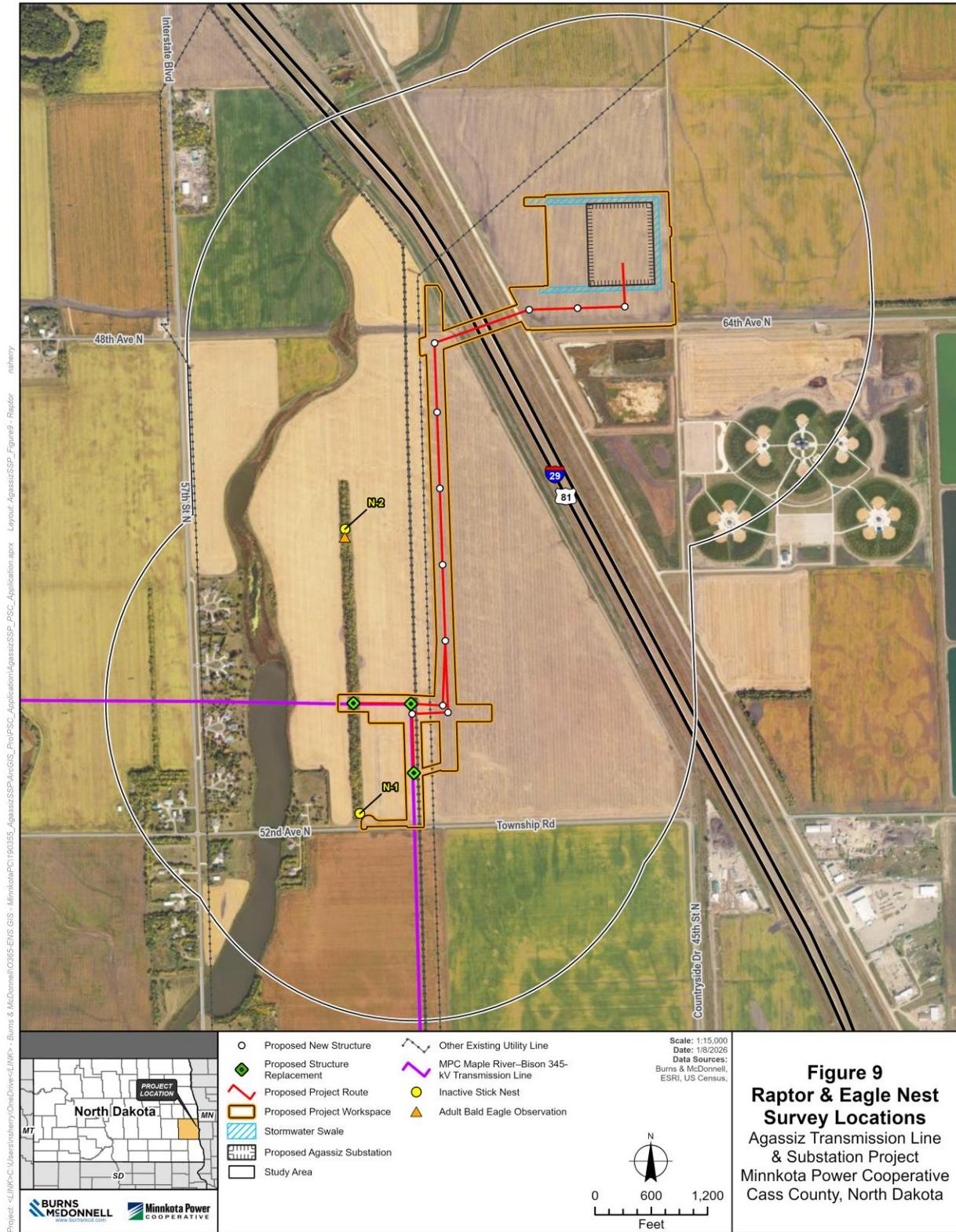
Migratory bird species protected under the MBTA include all U.S. native birds such as songbirds, raptors, waterbirds, waterfowl, and shorebirds. According to IPaC, approximately 26 species of Birds of Conservation Concern (BCC) have potential to occur within the Study Area (Appendix D). BCCs are species of migratory birds that have been designated the highest conservation priority by the USFWS. Based on the current habitat conditions of the Study Area, the Study Area only provides marginal habitat for migratory birds, specifically along the shelterbelt for tree nesting species and along the field ditches for ground nesting birds. Only the grasshopper sparrow (*Ammodramus savannarum perpallidus*), bald eagle, and northern harrier (*Circus hudsonius*) are listed under the BCC and have potential to be nesting within the Study Area.

Following an eagle and raptor nest survey conducted on December 5, 2025, one medium-sized nest approximately 750 feet (120 feet from the temporary access road) from the Project Corridor was identified (Appendix E; Figure 9). Given the size of the nest, it is suitable for use by medium sized raptors such as the great horned owl (*Bubo virginianus*), red-tailed hawk (*Buteo jamaicensis*), or Cooper's hawk (*Astur cooperii*), which are protected by the MBTA. No BCC or bird state Species of Greatest Conservation Need (SGCN; see further discussion below) are anticipated to use this nest during the breeding season.

Bald Eagles

The bald eagle was officially removed from the federal threatened and endangered species list in 2007 but is still protected under the federal Bald and Golden Eagle Protection Act (BGEPA) and MBTA (see further discussion of the MBTA and other migratory birds below). The BGEPA protects bald and golden eagles by prohibiting anyone without a permit issued by the Secretary of the Interior from "taking" a bald or golden eagle, including their parts, nests, or eggs (16 U.S.C. 668-668c). The permit, issued by the USFWS Migratory Bird Office, would authorize incidental take (i.e., disturbance) to eagles and/or authorize removal of an inactive eagle nest.

Based on the location of the Study Area, bald eagles have potential to occur within the Project Corridor (USFWS 2025b). To identify if any eagles or other migratory raptors occur within the Study Area, an eagle and raptor nest survey was conducted on December 5, 2025 (Appendix E). The survey identified a potential bald eagle nest approximately 1,200 feet west of the Project Corridor within the shelterbelt that occurs within the Study Area (Figure 9). The nest was observed to be inactive during the survey; however, bald eagle activity was documented throughout the Study Area, including a bald eagle roosting in a tree in the same shelterbelt as the potential eagle nest (refer to location in Figure 9).



State Species of Greatest Conservation Need

The state of North Dakota has developed a list of numerous avian, mammal, reptiles, amphibians, fish, and invertebrate SGCN based on varying degrees of rarity, geographic range, breeding status, and other factors as part of its State Wildlife Action Plan (SWAP; NDGF 2025c). Per the SWAP, the Project is located between the Sheyenne and Red River Focus Areas.

A discussion for SGCN that are known to occur within both the Sheyenne and Red River Focus Areas, and their potential to occur within the Study Area, are provided below. Additionally, the NDGF Conservation Section conducted a desktop review of the Project on December 8, 2025, to determine if any current or historical plant or animal species of concern or other significant ecological communities are known to occur within the Study Area. The review of the Study Area did not identify any species of concern within the Study Area (pers. comm. Sandra J. 2025).

Birds. There are no bird species listed as SGCN in the Red River Focus Area. The only bird species listed as SGCN is located in the Sheyenne River Focus Area, which is the black-billed cuckoo (*Coccyzus erythrophthalmus*) (NDGF 2025c).

The black-billed cuckoo is an SGCN due to its population decrease of 68% since the 1970s (NDGF 2025c). The black-billed cuckoo prefers brushy margins of woodlands and thickets along prairies that occur within a riverine valley (NDGF 2025c). The species will also use shelterbelts and wooded areas of towns and farmsteads. The species is known to occur within most riparian systems in North Dakota including the Sheyenne River (NDGF 2025c). Given the primarily agricultural landscape of the Project, the Project does not contain nesting habitat for the species and may only support infrequent visits while foraging near the Project.

Mammals. Mammal species listed as SGCN in the Sheyenne/Red River Focus Areas are the gray fox (*Urocyon cinereoargenteus*) and the little brown bat (*Myotis lucifugus*) (NDGF 2025c).

The gray fox is listed as an SGCN due to its population decline throughout its range in the United States; however, they are only known to occur at the eastern edge of North Dakota (NDGF 2025c). The gray fox prefers brushy/shrubby habitat often associated with forested areas. Throughout their range they are found in agricultural landscapes and woodlots. Both the Sheyenne and Red River are key areas for the species (NDGF 2025c). Because the Project is primarily agricultural landscape without extensive woodlands, the species may incidentally occur near or within the Project while foraging.

While the little brown bat is common in North Dakota, the species is listed as an SGCN due to the increasing prevalence of white-nose syndrome throughout its range (NDGF 2025c). The species prefers to roost in dead trees during the late spring and summer, and transition to hibernacula outside of the state during the winter (NDGF 2025c). There are no known hibernacula in North Dakota for the little brown bat. Occurrence of the species in North Dakota is common, primarily during the spring and summer

(NDGF 2025c). Bats are a highly mobile species that roost during the daytime; therefore, mortality due to collisions with Project-related vehicles or construction equipment will be unlikely. The only potentially suitable roosting habitat for the species occurs along the shelterbelt within the Project.

Reptiles/Amphibians. The American toad (*Anaxyrus americanus*) is listed as an SGCN in the Sheyenne/Red River Focus Areas. The common snapping turtle (*Chelydra serpentina*) is another SGCN that has a range overlapping the Study Area (NDGF 2025c).

The American toad is listed as an SGCN due to its increased rarity within the state (NDGF 2025c). The species is known as a forest obligate, but can be found in most moist environments. Because the Project is primarily in an agricultural landscape without extensive forest habitat, the species is unlikely to be present in the Project Corridor.

The snapping turtle is listed as an SGCN due to its vulnerability to the turtle trade (NDGF 2025c). The species occurs in permanent lakes or rivers with a muddy bottom and plenty of aquatic vegetation. No lakes or rivers will be affected by the Project.

Fish. Fish species listed as key SGCN in the Sheyenne/Red River Focus Areas include burbot (*Lota lota*), blacknose shiner (*Notropis heterolepis*), carmine shiner (*Notropis percobromus*), finescale dace (*Chrosomus neogaeus*), hornyhead chub (*Nocomis biguttatus*), northern pearl dace (*Margariscus nachtriebi*), northern redbelly dace (*Chrosomus eos*), pugnose shiner (*Notropis anogenus*), silver chub (*Macrhybopsis storeriana*), and trout-perch (*Percopsis omiscomaycus*) (NDGF 2025c). Each of these species are found in perennial waterbodies, which do not occur in the Project Corridor.

Invertebrates. Invertebrate species listed as key SGCN in the Sheyenne/Red River Focus Areas include Dakota stonefly (*Perlesta dakota*), plains stripetail (*Isoperla longiseta*), sand-dwelling mayfly (*Apobaetis lakota*), black sandshell (*Ligumia recta*), creek heelsplitter (*Lasmigona compressa*), creeper (*Strophitus undulatus*), Mapleleaf (*Quadrula quadrula*), pink heelsplitter (*Potamilus alatus*), threeridge (*Amblema plicata*), and Wabash pigtoe (*Fusconaia flava*) (NDGF 2025c). Each of these species are found in, or have life cycles tied to, perennial waterbodies, which do not occur in the Project Corridor.

6.9.2 Impacts/Mitigation

The Project is anticipated to result in negligible to minor impacts on wildlife, including threatened and endangered species, migratory birds, eagles, and SGCN due to the limited and highly disturbed habitat in and adjacent to the Project Workspace. The primary impacts would occur during construction due to construction noise, human presence, and the use of artificial lighting. These impacts already occur to some degree from agricultural activity and daily vehicle traffic along the highways and railroad in the Study Area. Impacts to individual species groups are discussed below. On January 8, 2026, the NDGF, in response to MPC's introduction letter, stated that it had reviewed the Project and did not believe the Project will have a significant adverse effect on wildlife or wildlife habitat based on the information provided (see Section 8.11.8 and Appendix F).

General Wildlife

General wildlife, including small and large mammals, reptiles, and amphibians, are anticipated to occur within the Project Corridor. Based on the surrounding habitat and the temporary nature of construction activities within the Project Workspace, most wildlife would be expected to move away from active construction areas, thereby avoiding direct impacts. Indirect impacts associated with construction noise, increased vehicle traffic, and human presence are expected to result in a minor, temporary increase in existing disturbance levels within adjacent agricultural lands and transportation corridors.

To minimize the risk of impacts to wildlife, holes that are drilled or excavated for pole placement or foundation construction and left unattended overnight will be marked and secured with temporary fencing and plywood covers to reduce the potential for wildlife entering the holes and for public safety.

Federally Listed Species

As noted, there are no federally listed species that are likely to occur in the Study Area. One proposed species, the monarch butterfly, could occur in limited areas with sparse habitat in the Project Workspace. No protection is required for proposed species from private actions under Sections 9 and 10 of the ESA. Construction activities will primarily occur in croplands supporting adult monarch foraging habitat (e.g., croplands of canola and sunflowers), while little if any impacts to reproductive habitat (i.e., milkweed), which is more likely to occur along field edges, are anticipated. MPC is a Partner in the voluntary Monarch Candidate Conservation Agreement with Assurances (CCAA). The Certificate of Inclusion was executed in March 2025, which included MPC in University of Illinois, Chicago's Section 10(a)(1)(A) Enhancement of Survival and Incidental Take Permit. The CCAA provides regulatory certainty to not require additional conservation requirements beyond those performed on a subset of the enrolled lands should the monarch be listed. These measures promote early successional habitat to benefit the monarch, which also benefits other pollinators. All herbaceous areas of the ROW within the Project's APE are enrolled in the CCAA. Because there is an abundance of foraging and reproductive habitat in adjacent areas available to dispersing adult monarchs, no adverse impacts as a result of the Project are anticipated.

As noted in Section 6.9.1, the Suckley's cuckoo bumble bee and western regal fritillary lack suitable habitat and are unlikely to occur in the Project Corridor; therefore, the Project will not affect these proposed species.

Migratory Birds

The Project may result in indirect impacts to migratory birds protected under the MBTA, including temporary disturbance or displacement, or direct injury and loss of ground-nesting birds, from construction during the migratory bird nesting season (April 15 to July 15 for most species; February 1 to August 31 for raptors). Since construction will take place during the breeding season, MPC will carry out preconstruction surveys to identify active nests within 0.5 mile of the Project Workspace. Tree-nesting species would most

likely be affected in the shelterbelt near the temporary access road and where the Project Corridor intersects the shelterbelt in the existing Maple River to Bison Line ROW. One medium sized nest was identified during raptor nest surveys within the shelterbelt approximately 120 feet from the temporary access road (see Figure 9). The Project will not result in direct impacts to the nest if it becomes active during construction; indirect impacts such as disturbance of nesting birds from vehicle noise could occur. However, impacts would likely be minor since the nest is located at the edge of the agricultural field, and birds that could use the nest are likely habituated to noise from farm vehicles and equipment. Where the Project Corridor intersects the shelterbelt, no tree clearing is anticipated during construction of the transmission line, and impacts to birds in this area would also be due to noise and activity disturbance. Ground nesting birds could occur in the Project Workspace, primarily along field edges. Since most of the Project Corridor occurs in the croplands, ground nesting birds are unlikely to be affected.

If active nests are found in or adjacent to Project Workspace, no-activity buffers will be implemented to minimize disturbance to the extent feasible. Given the lack of woodland habitat in the Project workspace, disturbed ground nesting habitat, and the limited documented occurrences of raptor nests, temporary impacts to migratory birds from construction will be minor with the implementation of no-activity buffers, where needed.

Following construction, potential collision with transmission lines, particularly by larger birds such as waterbirds and waterfowl, could occur during operation. As stated above, the proposed transmission line will occur within and adjacent to an existing transmission line ROW; therefore, its presence will only slightly increase the risk of collisions compared to current conditions. Furthermore, because the Project Corridor is not adjacent to large wetland or waterbody habitats where the risk of collisions tend to be higher, significant impacts from transmission line collisions will not occur.

Electrocution risk to birds roosting on transmission lines will be negligible since the designed conductor configurations developed for the Project exceed the APLIC recommended minimum separation distances of 60 inches for avian-electrocution avoidance (APLIC 2006; see Appendix B). Therefore, the Project is not anticipated to contribute to avian electrocution risk.

It may be possible for birds such as raptors or ravens (*Corvus corax*) to nest on top of transmission line structures, which, as proposed, have a flat top approximately 2 feet in diameter (see Appendix B). While this is not expected to present a substantial risk to birds, there may be concerns about the integrity of the transmission line from nest material. MPC will install bird diverters according to its Avian Protection Plan if deemed necessary based on the final Project design.

The following mitigation measures to avoid and/or minimize the potential for the Project to impact migratory birds includes:

- No more than 7 days prior to surface disturbance activities during the migratory bird breeding season (April 15 to July 15) and raptor breeding season (February 1 through August 31), a qualified biologist will survey suitable habitat within 0.5 mile of the Project Workspace (i.e., non-cultivated land) for nesting activity and other evidence of nesting (e.g., mated pairs, territorial defense, birds carrying nest material, transporting food).
- If active nests or other evidence of nesting of a bird that could experience disturbance in or immediately adjacent to Project Workspace is observed, no-activity (i.e., avoidance) buffers around the nest will be established to minimize disturbance until the young have fledged and dispersed from the nest area. These measures will be implemented on a site-specific and species-specific basis in coordination with the NDGF and USFWS, as appropriate.
- Construction personnel will be trained on restricted activities near active bird nests and how to recognize signs of disturbance.
- If active nests show signs of disturbance during construction, such as alarm calling, flushing from nest, or long absence from active nest with eggs (absent for more than two consecutive 15-minute periods during incubation), a designated staff member, in coordination with MPC, will coordinate with a qualified biologist and the USFWS, if needed, to develop additional mitigation, which could include on-site biological monitoring, increased buffers, or limiting certain construction activities.
- Bird diverters will be placed on top of transmission line structures to deter nesting if needed to protect transmission line integrity and in accordance with MPC's Avian Protection Plan.

Bald Eagles

Given the presence of a potential bald eagle nest and documented bald eagle roosting activity in the Study Area, the Project may result in minor impacts to roosting and nesting bald eagles, primarily due to temporary noise and activity disturbance during construction. There is a low risk of potential collisions with transmission lines during operations, and a negligible risk of electrocution based on line spacing (see migratory bird discussion above).

According to the USFWS, project construction should avoid activities within 660 feet from an active bald eagle nest (USFWS 2024c). If the nest observed during the 2025 survey should be used as an active bald eagle nest in 2026, disturbance would be negligible since the nest is approximately 1,200 feet from the Project Corridor; therefore, it is not anticipated that the Project will require an Eagle Permit for disturbance under the BGEPA. The mitigation measures for migratory birds described above would also generally apply

to bald eagles. Specific to bald eagles, if any previously identified or new nests are confirmed active within 660 feet of the Project Workspace, MPC will implement a no-disturbance 660-foot buffer until the young have fledged and dispersed. If the bald eagles still exhibit signs of disturbance, additional action will be taken to ensure compliance with the BGEPA, as described for migratory birds above.

State Species of Greatest Conservation Need

The Project has the potential to have a minor, indirect effect on roosting and foraging activity of little brown bats, gray foxes, and black-billed cuckoos during construction and operation, although the species are unlikely to occur given the small amount of potential woodland habitat present. The Project will be unlikely to affect other SGCN species that could occur in the Sheyenne and Red River Focus Areas due to a lack suitable habitat in the Project Corridor (see Section 6.9.1 above).

No tree removal will be needed along the established transmission line ROW; however, noise and activity from construction during replacement of the existing structure in the shelterbelt could disturb any wildlife present. Given the limited habitat directly adjacent to the existing corridor, and additional habitat in the shelterbelt available for dispersal, impacts will be temporary and minor if the SGCN species are present.

6.10 Summary of Impacts and Avoidance/Minimization Measures

Table 13 includes a summary of impacts and avoidance/minimization measures for each environmental resource evaluated by the Project.

Table 13. Summary of Impacts and Mitigation

Resource	Potential Impact	Proposed Avoidance/Minimization Measures
Demographics	Construction of the Project will result in minor economic benefits, including jobs and spending in the local area and state. No long-term changes to demographics are anticipated.	No avoidance, minimization, or mitigation measures are proposed.
Land Use	The Project will not result in a significant change in land use. Agricultural production can continue in the Project Corridor, while it will be discontinued within the substation footprint. Total permanent impacts are estimated to be 21.1 acres, representing a minor permanent reduction in agricultural production.	MPC will compensate landowners for the purchase of property for the Project Corridor and for any crop damage that may occur in ATWS outside the Project Corridor during construction and operation. Economic loss to producers due to land conversion is anticipated to be minor in comparison to additional income provided by the Project.

Resource	Potential Impact	Proposed Avoidance/Minimization Measures
Public Services	<p>Project construction will temporarily increase traffic on local roads. Construction of access drives off of two roads and line installation across I-29, County Highway 81, and the BNSF Railroad may cause temporary traffic disruptions. Construction cranes and some structures could trigger the need for marking and lighting to ensure no hazard to air traffic. The Maple River to Bison Line will experience a temporary outage during the interconnection with the Project.</p>	<p>MPC and MPC's contractors will comply with permit conditions related to transportation and coordinate with the appropriate jurisdictional entities regarding road use, maintenance, and repair as needed during construction. MPC will submit the required notifications to the FAA and implement marking and lighting requirements identified in an FAA determination, if applicable. MPC will manage the outage of the Maple River to Bison Line to minimize any potential disruption of service to its customers.</p>
Human Health and Safety	<p>The presence of fuel, oil, and other hazardous substances used for vehicles and equipment could present a health hazard through an incidental release to soils and surface water. Electrical facilities can pose a safety risk.</p>	<p>Equipment refueling will take place at approximately 100 feet away from surface water, and an SPCC Plan will be implemented to manage oil storage and use at the substation. Spill response equipment will be kept on site and readily available in the event of a leak or spill. Should a spill occur, MPC will notify the appropriate agency and/or emergency response authorities. The transmission line will be set back at least a distance of 500 feet from occupied residences, and Project construction and operation will follow industry safety standards for electrical facilities.</p>
Sound	<p>Project construction and operation will cause a temporary increase in sound due to construction vehicles and equipment, while operation will result in intermittent corona noise from the transmission line and operational noise from the substation. The closest potential sensitive noise areas may experience noticeable but minor increase in noise levels during construction, but negligible noise during operation.</p>	<p>Vehicles and equipment will be maintained in good condition in accordance with manufacturer's specifications.</p>

Resource	Potential Impact	Proposed Avoidance/Minimization Measures
Visual	The Project will have minor visual impacts by introducing an industrial facility to a rural area with existing industrial and commercial uses.	No avoidance, minimization, or mitigation measures are proposed.
Cultural and Archaeological Resources	Based on the current site plan, no archaeological or historic sites recommended eligible or remaining unevaluated for National Register of Historic Places (NRHP) eligibility will be affected by the Project. Consultation with the NDSHPO is ongoing.	MPC will implement their Inadvertent Discovery Plan.
Soils	Project construction may temporarily cause soil rutting and compaction, while structure installation will result in minor amounts of subsoil to the surface. Exposed soils could be more susceptible to stormwater runoff, although impacts would be minimal given the flat topography of the Project workspace.	Erosion and sediment control measures will be implemented prior to, during, and after construction until vegetation has reestablished. The use of specific erosion control measures will be detailed in the Project SWPPP used for acquisition of applicable permits listed in Section 7.0. Timber mats will be used to protect soils from rutting and compact as needed, particularly during wet periods. Areas of temporary disturbance will be re-vegetated or available for agricultural purposes following construction.
Surface Water and Groundwater	Project construction will have negligible impacts on the Lake Shure Water Protection Area through the risk of inadvertent leaks or spills of fuel, oil, or other hazardous substances from construction vehicles and equipment.	Equipment refueling will take place approximately 100 feet away from surface waters, and an SPCC Plan will be implemented to manage oil storage and use at the substation. Spill response equipment will be kept on site and readily available in the event of a leak or spill. Should a spill occur, MPC will notify the appropriate agency and/or emergency response authorities.
Floodplains	Construction of Project facilities will occur within a 100-year floodplain and could alter surface water runoff.	The Project will be constructed to withstand 100-year flood events. A stormwater drainage system will be implemented, including a swale around the substation that will drain into off-site detention ponds, allowing water to infiltrate into surrounding soils and reducing surface flow.
Wetlands	No wetlands will be affected.	No avoidance, minimization, or mitigation measures are proposed.

Resource	Potential Impact	Proposed Avoidance/Minimization Measures
Vegetation	The Project will result in temporary impacts and minor permanent impacts to upland and crop vegetation. Since the Project is primarily located in cultivated fields and adjacent disturbed areas, impacts to native vegetation will be minor.	Following construction, temporarily disturbed areas will be restored for agricultural use in the transmission line ROW and ATWS west of I-29. Riparian and upland herbaceous vegetation will be established based on appropriate NRCS seed mixes in the swale and temporary workspace around the substation. MPC will follow its Vegetation Management Program as necessary during construction and operation.
Wildlife and Rare and Unique Natural Resources		
General Wildlife	The Project is unlikely to result in direct impacts to general wildlife species that may occur within the Project Workspace during construction, since most wildlife would be expected to move away from active construction areas to nearby surrounding habitat.	Holes that are drilled or excavated for pole placement or foundation construction and left unattended overnight will be marked and secured with temporary fencing and plywood covers to reduce the potential for wildlife entering the holes.
Threatened and Endangered Species	The Project is reasonably certain to not result in adverse effects to federally threatened or endangered species given the highly disturbed habitat within the Study Area, and since no listed species are known to occur in the Study Area.	No avoidance, minimization, or mitigation measures are proposed.
State Species of Greatest Conservation Need – Little Brown Bat, Gray Fox, Black-billed Cuckoo	The Project may result in the temporary minor disturbance of the species if present in the shelterbelt adjacent to the temporary access road and Project Corridor.	No tree clearing will occur and no known bat hibernacula occurs in the Study Area.

Resource	Potential Impact	Proposed Avoidance/Minimization Measures
Avian Species	<p>The Project may result in the temporary disturbance of ground- and tree-nesting birds during construction. Injury or mortality could occur to non-volant young of ground-nesting species from vehicle movement.</p> <p>Project operation may result in minor impacts to avian species by increasing the potential for bird strikes with transmission line structures and conductors, particularly for larger birds, although the transmission line is adjacent to existing transmission lines and does not occur in a high-risk area near wetlands and waterbodies. Bird electrocutions are unlikely on the 345-kV transmission line given the wide spacing of conductors, and substations generally present a low risk of electrocutions to wildlife.</p> <p>A potential bald eagle nest was located more than 660 feet from the Project Route and may experience negligible impacts from construction disturbance.</p>	<p>No tree clearing will occur. A preconstruction nest survey will be conducted and avoidance buffers will be implemented if needed to minimize disturbance to breeding birds.</p>

7.0 POTENTIAL PERMITS/APPROVALS

Table 14 outlines the federal, state, county, and township permits or approvals that have been identified as potentially required for the construction and operation of the Project. Permits dependent on the final Project layout will be applied for after receiving Commission approval, but prior to construction.

Table 14. Anticipated Permits and Approvals Required

Agency	Type of Approval	Status*	Need
Federal			
FAA	Determination of No Hazard through a Notice of Proposed Construction or Alteration (Form 7460-1) and, if applicable, a Notice of Actual Construction (Form 7460-2)	To be obtained ³	Required for construction of structures more than 200 feet in height or exceeding imaginary surfaces extending outward and upward of the Hector International Airport, expected to be required.
EPA	SPCC Plan	To be obtained ³	Required for the substation since it will have more than 1,320 gallons of aboveground petroleum storage capacity in 55-gallon-sized or larger containers.
State			
NDSHPO	Consultation	In process ²	Required for projects that require state permits or affect state registered properties.
PSC	Certificate and Route Permit	In process ²	Required for construction of a transmission facility greater than 1 mile in length.
NDDEQ	NPDES: General Permit for Stormwater Discharges Associated with Construction Activities (NDR11-0000)	To be obtained ³	Required for disturbance of over one acre of land includes preparation and implementation of a SWPPP.
North Dakota State Electrical Board	Electrical Permit (Wiring Certificate and Inspection Approval)	To be obtained ³	Required to verify proposed Project follows state electrical codes.
NDDOT	Utility Occupancy Permit	To be obtained ³	Installing utilities within a state highway ROW. Required for crossing of I-29.
North Dakota Highway Patrol	Oversize/Overweight Permit	To be obtained by construction contractor ³	Required to transport oversize loads on state roads.

Agency	Type of Approval	Status*	Need
County/City/Townships			
Cass County	Utility Permit	To be obtained ³	Installation, maintenance, relocation, and removal of utilities in a Cass County highway right-of-way requires prior permit approval.
	Oversize/Overweight Permit	To be obtained by construction contractor ³	Required to transport oversize loads on county roads.
City of Harwood	Building Permit	To be obtained ³	Required for construction projects or land development activities in City jurisdiction.
	Floodplain Permit	To be obtained ³	Required for construction activities and permanent construction in a floodplain.
	Driveway License	To be obtained ³	Construction of substation access drives will require prior license approval from the City Auditor.
City of Fargo	Floodplain Permit	To be obtained ³	Required for construction activities and permanent construction in a floodplain.
	Erosion and Sediment Control Permit	To be obtained ³	Required as a condition of the floodplain approval, as well as land disturbances in excess of one-acre.
Other Entities			
BNSF Railway	Railroad Coordination / BNSF Wire Crossing Permit	To be obtained ³	Required for transmission line wire crossings of BNSF railroads.

*Status Explanation:

¹ Completed and approved.

² Applied and/or decision pending.

³ Will apply for prior to construction, as applicable.

8.0 FACTORS CONSIDERED

The Siting Act lists 11 factors to guide the Commission in the evaluation and designation of the site of the facility (NDCC Section 49-22-09).

8.1 Public Health and Welfare, Natural Resources, and the Environment

The preceding sections discuss the research and investigations relating to the effects of the Project on public health and welfare, natural resources, and the environment. These effects and the proposed measures to minimize these effects are summarized in Section 6.10.

8.2 Technologies to Minimize Adverse Environmental Effects

The Applicant will utilize the most current technologies that minimize impacts to the environment. Current technologies include the use of bundled conductors to minimize corona sound and EMF effects.

8.3 Potential for Beneficial Uses of Waste Energy

This factor is not applicable to the Project. No waste energy is produced by a transmission line.

8.4 Unavoidable Adverse Environmental Effects

Unavoidable adverse environmental effects are described for each resource area in Section 6.0. Unavoidable permanent ground disturbance will include the permanent conversion of agricultural land and alteration of the visual landscape to accommodate the transmission line poles and substation for the life of the Project. Any additional acreage temporarily impacted during construction will be restored to its original condition, as practicable, after construction. The Project selected its route to minimize unavoidable environmental impacts and will implement appropriate mitigation measures, outlined in Section 6.0, throughout Project development.

8.5 Alternatives to Proposed Site

No other routes were considered because the proposed Project Route follows the most direct possible route from an available tap with an existing 345-kV transmission line to the proposed substation that will supply power to the adjacent large load interconnection, and has minor environmental impacts. The proposed Project Route avoids the exclusion and avoidance areas, minimizes impacts to resources identified in the selection criteria, and capitalizes on certain policy criteria identified in NDAC Section 69-06-08-02. Any alternatives would result in a greater impact area and could have additional potential adverse effects on sensitive resources.

8.6 Irreversible and Irretrievable Commitment of Natural Resources

Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the use of these resources have on future generations. Irreversible effects primarily result from use or destruction of a specific resource that cannot be replaced within a reasonable timeframe.

Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action. There are few commitments of resources associated with this Project that are irreversible and irretrievable, but these include those resources primarily related to construction.

Labor and natural resources will be used in the fabrication and preparation of construction materials. These materials are usually not retrievable. Construction resources that will be used include aggregate resources, concrete, steel, and hydrocarbon fuel. Each structure

requires the construction of a reinforced concrete foundation with embedded anchor bolts, ranging from 9 to 12 feet in diameter and approximately 39 to 88 feet deep, with final foundation depths determined by structure height, structural loading requirements, and site-specific subsurface soil conditions. During construction, vehicles will be traveling to and from the site, utilizing hydrocarbon fuels. These resources are not in short supply, and their use will not have an adverse effect on the availability of these resources. In addition, the anticipated benefits of the Project will balance the irretrievable commitment of resources resulting from the construction of the Project.

8.7 Direct and Indirect Economic Impacts

Direct positive economic impacts include wages paid to consultants, construction workers, and resource providers during Project development and construction, as well as landowners for the purchase of land for the Project Corridor. Indirect positive economic impacts would include recirculation of dollars paid within the surrounding community, and the enablement of further development in the area due to the expansion of electrical infrastructure that can meet high energy capacity requirements.

Direct negative impacts will include some permanent loss of cultivated cropland for the substation and transmission structures, although the transmission line right-of-way will remain available for cultivation, and landowners have been compensated through the sale of the land to MPC for the Project Corridor. Other impacts will be limited to a temporary disturbance of agricultural land from excavation, grading, and equipment staging, which could result in soil compaction and rutting, potentially leading to a temporary loss of crop productivity through disruption of planting and harvesting in affected areas. Post-construction restoration of disturbed soil and vegetation is expected to sufficiently mitigate this impact. Landowners will be compensated for crop damage that occurs in ATWS outside the Project Corridor.

8.8 Existing Development Plans of the State, Local Government, and Private Entities at or in the Vicinity of the Project

As discussed above, the purpose of the Project is to supply power to CCEC's members, including the connection of a new large load member, and to enhance the strength and resiliency of MPC's transmission system.

The City of Harwood does not administer a Comprehensive Plan or any comparable citywide development plan (City of Harwood 2025b). The City of Fargo adopted the Go 2030 Comprehensive Plan in 2012 (City of Fargo 2012), and no major developments in proximity to the Project were identified in that plan. The more recent Fargo Growth Plan 2024 similarly does not identify any planned development in the Project Corridor during the anticipated construction period (City of Fargo 2024). Cass County adopted a Comprehensive & Transportation Plan in 2018, which recognizes the County's location along major electrical transmission corridors capable of serving regional demand, consistent with the purpose and need for the Project (Cass County 2018). The Project is located within the Metro Planning Area, which has been evaluated extensively for long-

term growth consistent with the County plan. No major future developments have been identified in proximity to the Project.

The City of Fargo is considering a road expansion project between I-29 and a potential Fargo expansion area to the east. MPC has communicated with the City of Fargo, which has no immediate plans within the Study Area (see Section 8.11.1 for a summary of communications). MPC will continue to coordinate with the City of Fargo should a road expansion project be proposed in proximity to the Project.

No other major plans in proximity to the Project, including those from NDDOT, were identified; therefore, no conflicts with existing development plans are expected as a result of Project development.

8.9 Effect of Site on Cultural Resources

As discussed in the preceding sections, no archaeological or historic sites recommended eligible or remaining unevaluated for NRHP eligibility will be affected by the Project. Consultation with the NDSHPO is ongoing. The Project will not affect existing scenic areas or known paleontological resources.

8.10 Effect of Site on Biological Resources

A detailed discussion of potential impacts and proposed mitigation measures on biological resources is provided in Section 6.9. Given that the Project Workspace is within cultivated fields and adjacent disturbed areas, impacts to wildlife and vegetation will be minor given the lack of habitat and low likelihood for sensitive species to be present. The presence of a new transmission line adjacent to existing transmission lines will create a minor increase in the risk of bird collisions with conductors; the Project is situated outside of a high-risk area for bird collisions (e.g., adjacent to wetlands and waterbodies). Electrocutions of birds perching on the transmission line are unlikely since the conductors are adequately spaced. A qualified biologist will conduct preconstruction nest surveys to identify any active nests within 0.5 mile of the Project Corridor. If any active nests are identified, the Project will implement avoidance buffers to minimize disturbance until the young have fledged and dispersed.

8.11 Agency Comments

Agency coordination has been conducted as part of the application development process. As noted in Section 6.5, a consultation letter was sent to the NDSHPO of the State Historical Society of North Dakota with the results of a Class I literature review and Class III survey on January 6, 2026, and to request concurrence of a finding of no significant impact to cultural resources. As of the date of this document, consultation with the

NDSHPO is ongoing. In addition, the following entities were provided introduction letters and invited to submit any comments regarding the Project:

- BNSF Railway
- Cass County
- City of Harwood
- City of Fargo
- City of West Fargo
- City of Reile's Acres
- Reed Township
- Harmony Township
- Raymond Township
- NDDOT
- North Dakota Aeronautics Commission
- North Dakota Attorney General's Office
- North Dakota Department of Agriculture
- NDDH
- North Dakota Department of Human Services
- North Dakota Department of Labor and Human Rights
- North Dakota Department of Career & Technical Education
- North Dakota Department of Commerce
- North Dakota Department of Trust Lands
- NDGF
- North Dakota Office of the Governor
- Job Service North Dakota
- North Dakota Parks & Recreation
- NRCS
- NDWC
- North Dakota Transmission Authority
- North Dakota Pipeline Authority
- NDDEQ
- NDGS
- North Dakota Forest Service
- DOD/DOW
- USFWS, North Dakota Field Office
- USACE, North Dakota Regulatory Office
- FAA, Dakota-Minnesota Airports District
- Federal Bureau of Land Management, North Dakota Field Office
- Military Aviation and Installation Assurance Siting Clearinghouse
- Twentieth Airforce Ninety-First Missile Wing
- Minot Air Force Base
- Grand Forks Air Force Base
- North Dakota Indian Affairs Commission

As of the date of application submission, eight (8) agencies provided comments in response to the introduction letters, including the City of Fargo, NDDOT, NRCS, NDGS, USACE, the DOD/DOW, the NDDWR, and the NDGF, as summarized in Section 8.11.1. Copies of the Agency Correspondences are provided in Appendix F. An 8.5-inch by 11-inch black and white map suitable for newspaper publication depicting the site area is attached as Appendix G.

8.11.1 City of Fargo

The City of Fargo provided comments regarding other potential future land uses in the Study Area, however no detailed plans, designs, or routes have been developed at this time. On December 29, 2025, MPC met virtually with City of Fargo staff to discuss the city's concerns, which include retaining ROW to the north of 64th Ave N. MPC conducted a careful review and determined that further changes to the proposed Project Route could not be completed without adversely affecting the Project's feasibility, compliance, or overall integrity. Additional details are provided in Appendix F.

8.11.2 NDDOT

The NDDOT confirmed in an email dated December 19, 2025, that the Project will need a utility permit through their Fargo District Office for the transmission line crossing of I-29. MPC plans to submit an application for a NDDOT utility permit in the first quarter of 2026. Potential impacts to transportation, including compliance with permit conditions, are discussed in Section 6.2.

8.11.3 NRCS

The NRCS noted its responsibility in documenting the conversion of prime farmland and farmland of statewide importance and/or local importance for federally funded projects under the Farmland Protection Policy Act in a letter dated December 19, 2025. The NRCS confirmed that because the Project is not federally funded, the Farmland Protection Policy Act does not apply, and no further action is needed. Potential impacts to soils, including prime farmland, are addressed in Section 6.7.

8.11.4 NDGS

The NDGS commented in an email on December 30, 2025, that upon review of the proposed Project location and route, they had no major geologic concerns with the Project. They further provided resources for consideration in the analysis, including resources regarding bedrock, surface geology, and landslides. Potential impacts to soils and geology are addressed in Section 6.7.

8.11.5 USACE

The USACE commented via email on January 2, 2026, that the Project may require a USACE CWA Section 404 permit if any waters or wetlands are impacted. As noted in

Section 6.8, the Project will not affect any waters or wetlands, and a Section 404 permit will not be required.

8.11.6 DOD/DOW

On January 5, 2026, the DOD/DOW Military Aviation and Installation Assurance Siting Clearinghouse emailed to request additional information for an informal energy project review. MPC provided the additional information on January 6, 2026. MPC will continue to coordinate with the DOD/DOW to avoid or minimize potential impacts to military resources should they occur. Potential impacts to military resources are discussed in Section 6.2.

8.11.7 NDDWR

On January 8, 2026, the NDDWR submitted a comment letter regarding the Project via email. The comments noted that the agency's initial review indicated the Project does not require a conditional or temporary permit for water appropriation under NDCC Section 61-04-02. They further noted that the Project does not appear to take place within the ordinary high water mark of a currently identified navigable waterbody, and would therefore not require prior authorization to construction from the NDDWR (through a North Dakota state sovereign land permit per NDCC Chapter 61-33).

They advised that the Project work directly with the local floodplain administrator of the zoning authority impacted by the Project due to its location in the Federal Emergency Management Act National Flood Insurance Program Zone AE, with floodway. MPC plans to apply for a floodplain permit from both the City of Harwood and City of Fargo, which have jurisdiction over the Project.

Lastly, they provided information regarding two drainage features in the Study Area: a levee on the east side of the I-29 transportation corridor, and a drainage on the west side. The NDDWR requests to be notified of a proposed project's impacts to water resources, including water control devices, since the agency is responsible for regulating drainage in North Dakota. MPC reviewed the information provided, and determined that the Project will not affect the levee or drainage, as discussed in Section 6.8.

8.11.8 NDGF

The NDGF submitted an email on January 8, 2026, commenting that they had reviewed the Project for wildlife concerns, and did not believe it will have significant adverse effects on wildlife or wildlife habitat based on the information provided.

9.0 QUALIFICATIONS OF CONTRIBUTORS

Table 15. Qualifications of Contributors

Name	Project Role	Education and Experience
<p>Kara Laframboise Minnkota Power Cooperative, Inc</p>	<p>Project Manager</p>	<p>Ms. Laframboise has 13 years of transmission and substation design, engineering and project management experience with Minnkota Power Cooperative, Inc. Ms. Laframboise holds a Bachelor of Science degree in Electrical Engineering from the University of North Dakota. Kara has managed multiple complex transmission facility projects from initial design through long-range operational and system planning. Kara has successfully lead and managed multidisciplinary teams in the development of approximately \$100 million in Minnkota transmission system investment within North Dakota and Minnesota.</p>
<p>Megan Moore Minnkota Power Cooperative, Inc</p>	<p>Environmental Supervisor</p>	<p>Ms. Moore has diverse experience in environmental regulation and permitting topics within several different governmental frameworks. Ms. Moore holds a Bachelor's degree in Environmental Science and a Master's degree in Chemical Oceanography, both from Florida State University. While working for the state governments in Florida and Pennsylvania, Megan processed registration applications and assisted with regulatory language updates to the state's solid waste rule and enforced safe drinking water regulations and managed enforcement activities. While with MPC, Megan has supervised a team of environmental professionals to complete NEPA reviews to mitigate environmental impacts of transmission line and substation remodels, rebuilds, and new construction projects to increase electric reliability.</p>
<p>Kara Hempy-Mayer Burns & McDonnell</p>	<p>Environmental Project Manager</p>	<p>Ms. Hempy-Mayer has extensive experience in environmental compliance from the federal to local levels. Kara has conducted and managed simple to complex environmental analyses, including for National Environmental Policy Act (NEPA) categorical exclusions and environmental assessments or impact statements; due diligence reviews for siting of energy projects; and state permit applications, including North Dakota Public Service Commission permitting. She has also led Endangered Species Act (ESA) Section 7 consultations, supported Section 10 habitat conservation plans, and carried out consultations with state agencies for state sensitive species in the upper Midwest. She is a seasoned project manager, overseeing client and agency coordination and ensuring high-quality outcomes for energy development projects.</p>

Name	Project Role	Education and Experience
Jacob Schaffer Burns & McDonnell	Environmental Deputy Project Manager	Mr. Schaffer is an experienced environmental consultant and permitting specialist for the Upper Midwest Region power team. In 8 years of consulting experience, Jacob has helped permit and facilitate research for over 500 projects across forty-plus states for a variety of energy generation facilities including wind, solar, battery storage, transmission and distribution, natural gas, pipeline, and carbon capture facilities. Mr. Schaffer holds a degree from the University of Minnesota in Environmental Sciences, Policy, and Management, and Sustainability Studies.
Nicole Sherry Burns & McDonnell	GIS	Nicole Sherry has 14 years of experience in environmental consulting, specializing in GIS support for both large- and small-scale energy projects. Her expertise includes spatial data analysis, field data collection, and permitting support using a wide range of GIS platforms and tools. Ms. Sherry has supported diverse energy projects through all phases of state and federal regulatory and permitting processes. As a GIS project lead, she has provided support for preliminary project siting, routing of linear projects, landowner permission coordination, field survey management, and development of project-specific setbacks. She has also served as a GIS lead for biological and cultural resource surveys and construction compliance monitoring, utilizing Field Maps, Fulcrum, and ArcGIS Online. In addition, Ms. Sherry has extensive experience managing ArcGIS Online applications for both internal project teams and external clients.
Jack Kauphusman Burns & McDonnell	Water and Wildlife	Mr. Kauphusman is an experienced biologist and water resource specialist from the Upper Midwest Region environmental team. In 6 years as an environmental consultant, Mr. Kauphusman has conducted multiple biological assessments and water resource permitting for various transmission line and substation related projects throughout the Midwest and Southwest. Mr. Kauphusman holds a master's degree in biology from Austin Peay State University and bachelor's degree from Minnesota State University, Mankato. He is also a certified ecologist with the Ecological Society of America and associate wildlife biologist with The Wildlife Society.
James Formigli Burns & McDonnell	Environmental and Utility Permitting	Mr. Formigli is an experienced environmental consultant and permitting specialist for the Upper Midwest Region environmental team. In 6 years of consulting experience, James has helped permit and provide in-the-field construction coordination support for electric utility and gas pipeline infrastructure projects in multiple states. Mr. Formigli holds two degrees from Brandeis University in Economics and Environmental Studies.

Name	Project Role	Education and Experience
<p>Miles Koupal Burns & McDonnell</p>	<p>Land Use, Vegetation, and Geological Permitting</p>	<p>Mr. Koupal is an experienced field ecologist and permitting specialist from the Upper Midwest Region Environmental Studies group. Mr. Koupal has three years' combined experience in vegetation and soil surveys including wetland delineation, construction stormwater permitting and compliance, FERC permitting for natural gas facilities, and NEPA reviews for USACE regulated projects. Mr. Koupal holds a bachelor's degree in Biology from Occidental College. He holds a certification in Erosion and Stormwater Management from the University of Minnesota and is a certified Wetland Professional In-Training under the Minnesota Wetland Professional Certification Program.</p>
<p>Marcia Bender Burns & McDonnell</p>	<p>Cultural Resources</p>	<p>Ms. Bender has 22 years of cultural resources experience derived from involvement in numerous cultural resource management projects throughout the Great Plains and western United States. She has a Bachelor of Arts in Anthropology with an emphasis in Archeology and a Master of Arts in Anthropology, both from Wichita State University. She is permitted as a Principal Investigator through the NDSHPO in North Dakota.</p>
<p>Melinda McCarthy Burns & McDonnell</p>	<p>Cultural Resources</p>	<p>Ms. McCarthy has 15 years of cultural resources and historic preservation experience. Her responsibilities included leading cultural resources archaeology, tribal, and architecture surveys, GIS, and tribal outreach. She has a Bachelor of Arts in Anthropology with an emphasis in Archeology and a Master of Arts in history with a specialization in historic preservation, both from Southeast Missouri State University. She is permitted as a Principal Investigator through the NDSHPO in North Dakota.</p>

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