Consolidated Application to the North Dakota Public Service Commission for a Certificate of Corridor Compatibility and Route Permit

Neset to Northshore 230-kV Transmission Line
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Mountrail County, North Dakota

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January 2021

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1.0 INTRODUCTION

Pursuant to North Dakota Century Code (NDCC) Section 49-22-08.2, Basin Electric Power Cooperative (Basin Electric) submits this consolidated application for a North Dakota Public Service Commission (Commission) Certificate of Corridor Compatibility (Certificate) and Transmission Facility Route Permit (Route Permit) to construct the Neset to Northshore 230-kilovolt (kV) Transmission Line Project (Project) in Mountrail County, North Dakota (**Figure 1-1** through **Figure 1-3**).

Basin Electric is an electric power generation and transmission cooperative, headquartered in Bismarck, North Dakota. Basin Electric generates and transmits wholesale electricity to 140-member rural electric cooperatives located in a nine-state service area, serving three million customers on their respective systems. Mountrail-Williams Electric Cooperative (MWEC) is the local electric cooperative that depends upon affordable and reliable power from Basin Electric to serve their customers' power needs.

The need for an additional 230-kV transmission line is due to load growth in the area. As electric load continues to develop in the region between Tioga and New Town, the existing transmission network is unable to maintain loading and voltage criteria during contingency events. The Project is required to meet reliability standards and projected electrical demands. The addition of this transmission line will allow continued reliable operation of the transmission system to accommodate additional load growth in the region. The Project would provide more reliable service to electric cooperative customers, as well as diversify power resources on the larger transmission system. The total cost of the Project is estimated to be $57.4 million.

Southwest Power Pool Inc. (SPP) is the regional transmission organization that administers bulk electric transmission system reliability upgrades and generation interconnections. Basin Electric received a Notification to Construct (NTC) Approved Reliability Network upgrades notice in June 2020 from SPP. Basin Electric is the designated transmission owner for the upgrade, which includes a new 230-kV substation named Northshore and an approximately 26.5-mile-long transmission line from the existing Neset Substation to the proposed Northshore Substation.

1.1 Compliance with the Energy Conversion and Transmission Facility Siting Act

The North Dakota Energy Conversion and Transmission Facility Siting Act requires an application for a Certificate to meet the criteria set forth in NDCC Section 49-22 and the North Dakota Administrative Code (NDAC) Article 69-06. 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).

Basin Electric will comply with the exclusion and avoidance areas and selection and policy criteria set forth in NDAC Section 69-06-08-02 in the design of the Project and has provided information on such areas in this application. In addition, sufficient Project design and technical information have been provided for a thorough evaluation. **Table 1-1** outlines the requirements to fulfill a Certificate and Route Permit application and the application section that addresses the requirement.

Table 1-1 Certificate of Corridor Compatibility and Route Permit Criteria Checklist

Description		Section(s) Addressed
NDAC 69-06-05-01 - Transmission Facility Permit		
Subsection 2 - Contents		
a.	A description of the following:	
a. (1)	The type of facility proposed	1.0, 2.1, 4.1.1, 4.1.2, 4.1.3
a. (2)	Purpose of the facility	1.0, 1.7, 2.1
a. (3)	The technology to be used	1.0, 4.1.1, 4.1.2, 4.1.3
a. (4)	The type of product to be transmitted	1.0, 4.1.1, 4.1.2
a. (5)	The source of the product to be transmitted	1.0, 1.3, 2.1
a. (6)	The final destination of the transmission line	1.0, 1.3, 2.1
a. (7)	The proposed size and design and any alternate size or design that was considered, including: (a) The width of right of way; (b) The approximate length of the facility; (c) The estimated span length for electric facilities; (d) The anticipated type of structure for electric facilities; (e) The voltage for electric facilities; and (f) The requirement for and location of any new associated facilities	1.2, 1.3, 3.6, 4.1.1, 4.1.2
b.	The anticipated time schedule for accomplishing major events, including: (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.	1.5
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, Appendix 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
f.	The width of a corridor must be at least ten percent of its length, but not less than one mile [1.61 kilometers] or greater than six miles [9.66 kilometers] 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, 1.3
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.	3.5
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.	4.9, Appendix A
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.	3.1, 3.2, 3.3, 3.4, 4.1.1, 4.1.2, 4.1.3, 5.1
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.	1.3, 3.1, 3.2, 3.3, 3.4, 5.1.2, 5.2.2, 5.3.2, 5.4.2, 5.5.2, 5.6.2, 5.7.2, 5.8.2
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.	4.10, 4.11, 5.1.2, 5.2.2, 5.3.2, 5.4.2, 5.5.2, 5.6.2, 5.7.2, 5.8.2
m.	Qualifications of each person involved in the corridor location study.	8.0
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 1-4, Figure 3-1, Figure 5-2, Figure 5-3
o.	An eight and one-half-inch by eleven-inch black and white map suitable for newspaper publication depicting the site area	Electronically submitted

Description		Section(s) Addressed
p.	A discussion of present and future natural resource development in the area	3.1, 3.2, 3.3, 3.4, 4.1.1, 4.1.2, 4.1.3, 5.1
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.	Electronically submitted
NDAC 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, Figure 3-1
2.	Avoidance Areas	3.2, Figure 3-1
3.	Selection Criteria	3.3
4.	Policy Criteria	3.4
NDCC 49-22-08 - Application for a certificate - Notice of filing - Amendment - Designation of a site or corridor.		
Section 1 - 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, 2.1, 4.1.1, 4.1.2, 4.1.3
b.	A summary of any studies which have been made of the environmental impact of the facility.	5.4, 5.7, 5.8, Appendix B, Appendix D, Appendix E
c.	A statement explaining the need for the facility.	1.0, 1.7, 2.1
d.	An identification of the location of the preferred site for any electric energy conversion facility	1.0, 1.3, 2.1
e.	An identification of the location of the preferred corridor for any electric transmission facility	1.0, 1.3, 2.1
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	5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 7.2, 5.8
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	4.10, 4.11, 5.1.2, 5.2.2, 5.3.2, 5.4.2, 5.5.2, 5.6.2, 5.7.2, 5.8.2
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.	3.5
i.	Such other information as the applicant may consider relevant or the commission may require.	3.7
NDCC 49-22-08.1 - Application for a permit - Notice of filing - Amendment - Designation of a route.		
Section 1 - 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 shall 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, 2.1, 4.1.1, 4.1.2, 4.1.3
b.	A description of the location of the proposed facility.	1.0, 1.3, 2.1
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.	3.5
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.	4.10, 4.11, 5.1.2, 5.2.2, 5.3.2, 5.4.2, 5.5.2, 5.6.2, 5.7.2, 5.8.2
e.	A description of the right-of-way preparation and construction and reclamation procedures.	4.5, 4.7, 4.10
f.	A statement setting forth the manner in which: (1) The utility will inform affected landowners of easement acquisition, and necessary easement conditions and restrictions. (2) The utility will compensate landowners for easements, without reference to the actual consideration to be paid.	1.4, 4.5
g.	Such other information as the utility may consider relevant or the commission may require.	3.7
NDCC 49-22-09 - Factors to be considered in evaluating applications and designation of sites, corridors, and routes.		

Description		Section(s) Addressed
Section 1 - 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.	5.0, Appendix B, Appendix D, Appendix E
b.	The effects of new energy conversion and transmission technologies and systems designed to minimize adverse environmental effects.	5.8.2
c.	The potential for beneficial uses of waste energy from a proposed energy conversion facility.	NA
d.	Adverse direct and indirect environmental effects which cannot be avoided should the proposed site or route be designated.	5.0
e.	Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.	5.0, Appendix B, Appendix D, Appendix E
f.	Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.	5.8.2
g.	The direct and indirect economic impacts of the proposed facility.	NA
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.	5.0
i.	The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.	5.0, Appendix B, Appendix D, Appendix E
j.	The effect of the proposed site or route on areas which are unique because of biological wealth or because they are habitats for rare and endangered species.	5.8.2
k.	Problems raised by federal agencies, other state agencies, and local entities.	NA

1.2 Project Terms

Terms used in this application associated with the Project are defined in **Table 1-2.**

Table 1-2 Project Terms

Term	Definition/Description
Project Route	In accordance with NDCC Section 49-22-03(11), "Route" is defined as the location of an electric transmission facility within a designated corridor. The Project Route is approximately 26.5 miles long.
Project Corridor	The Project Corridor is 125-150 feet wide, which is the easement size that will be used for construction and maintenance of the life of the Project. The Project Corridor encompasses the Project Route.
Study Area	The Study Area analyzed for the Project is one-mile wide (0.5 mile on either side of the Project Route) and encompasses approximately 17,299 acres. [1]

[1] NDAC 69-06-05-01(2)(f) states that the "width of the corridor must be at least ten percent of its length, but not less than one mile [1.61 kilometers] or greater than six miles [9.66 kilometers] unless another appropriate width is determined by the Commission." Basin Electric proposes a one-mile-wide Study Area, with a 125-150-foot-wide Project Corridor, the combination of which is sufficient for the Commission to evaluate the factors addressed in NDAC 49-22-09.

1.3 Project Location

The Project is located in Mountrail County in northwestern North Dakota, a primarily rural, agricultural area approximately four miles east of Tioga and seven miles south of Ross. The Project runs in a south-east direction and is approximately 26.5 miles long. The Project Route, Project Corridor, Study Area, and substations are entirely within Mountrail County, North Dakota (**Figure 1-4**). **Table 1-3** shows the Township, Range, and Sections of the Project Route and Project Corridor. **Table 1-4** shows the Township, Range, and Sections of the Study Area. **Table 1-5** shows the Township, Range, and Section of the proposed Northshore Substation.

Table 1-3 Project Route and Project Corridor Public Legal Description

County	Township Name	Township	Range	Sections [1]
Mountrail	Alger	155 N	92 W	31
	Debing	155 N	93 W	5, 8, 14, 15, 16, 17, 23, 25, 26, 36
	Manitou	156 N	93 W	5, 8, 17, 20, 29, 32
	Sorkness	157 N	93 W	19, 20, 21, 22, 26, 27, 35
	White Earth	157 N	94 W	20, 21, 22, 23

[1] Note that locations within the Project Route and Project Corridor do not encompass the entire Section.

Table 1-4 Study Area Legal Description

County	Township Name	Township	Range	Sections [1]
Mountrail	Alger	155 N	92 W	30, 31
	Debing	155 N	93 W	4, 5, 6, 8, 9, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 35, 36
	Manitou	156 N	93 W	4, 5, 8, 9, 16, 17, 18, 19, 20, 29, 30, 31, 32
	Sorkness	157 N	93 W	16, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, 34, 35
	White Earth	157 N	94 W	19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29

[1] Note that locations within the Study Area do not encompass the entire Section.

Table 1-5 Northshore Substation Legal Description

County	Township Name	Township	Range	Sections [1]
Mountrail	Alger	155 N	92 W	31

[1] Note that location of the substation does not encompass the entire Section.

1.4 Easement Acquisition

There are a total of 36 landowners within the Project Corridor. All the land located within the Project Corridor is privately owned with the exception of approximately two miles of North Dakota Department of Trust Lands (NDDTL) School Trust Lands (**Figure 1-4**). Basin Electric is in the process of securing easement agreements over the required parcels for the Project. As of January 2021, approximately 83% of landowner easements have been secured.

1.5 Project Schedule

Basin Electric will likely commence construction in summer 2021 and be complete by the end of 2022. Most activities will take place in the North Dakota construction season, usually beginning in March or April and ending in November or December. Depending on project needs, winter construction may also be utilized. Private third-party contractors will construct the transmission line and haul away construction wastes associated with the Project. Basin Electric will ensure that any contractors hired will be familiar with and comply with mitigation measures and any agency or permit requirements.

Key schedule milestones include:

1. **Certificate and Route Permit**: Requested by July 2021.

2. **Right-of-Way Acquisition**: Anticipated by July 2021.

3. **Equipment Procurement, Manufacture and Delivery**: Ordering of long-lead equipment is in progress.

4. **Construction**: Anticipate construction activities running approximately 16 months from July 2021 to October 2022.

5. **Test and Operations**: Anticipated by November 2022.

6. **Commercial Operation**: Anticipated by December 2022.

7. **Expansions or Additions:** Basin Electric has no plans for expansions or additions to the Project.

1.6 Project Ownership

Basin Electric will own the entire transmission line and Northshore Substation and, as a result, will manage the construction of all equipment and associated facilities. Basin Electric will select a private third-party contractor to perform construction. The Neset Substation is owned and operated by Basin Electric. Basin Electric will purchase the land required for the Northshore Substation (**Figure 1-4**).

1.7 Future Associated Facilities

The Project will provide a new delivery point for MWEC, the local electric cooperative. MWEC would reroute three existing and one new 115-kV transmission circuits into the proposed Northshore Substation. These associated MWEC facilities do not require a Route Permit from the Commission, as they do not meet the definition of an electric transmission facility with a design in excess of 115 kV (NDCC 49-22-03.6).

2.0 NEED FOR FACILITY

2.1 Need Analysis

The need for an additional 230-kV transmission line is due to load growth in the area, which was identified from Basin Electric's annual load forecasting process, of which the most recent one was done in the fall of 2020. As electric load continues to develop in the region, specifically between Tioga and Parshall, the existing transmission network is unable to maintain loading and voltage criteria during contingency events.

SPP is the regional transmission organization that administers bulk electric transmission system reliability upgrades and generation interconnections in this area. The Project's need was identified from SPP's independent transmission analysis done in 2018 and 2019 and issued by SPP on February 12, 2019 in the form of the Delivery Point Network Study DPA-2018-August 918 (DPA Study). The DPA Study identified that the main contingencies in this area include one or more of the four transmission lines that currently feed the area. As load grows beyond a certain point, the DPA Study detailed that a loss of any one of these lines leads to SPP criteria violations in this local region. Criteria violations identified through modeling in the DPA study included potential thermal overloads and low voltage violations. The DPA study concluded that this Project will add substantial support to the local area and will allow the transmission system to meet reliability standards and projected electrical demands.

Basin Electric received a NTC Approved Reliability Network Upgrades notice in June 2020 from SPP as a result of the DPA Study. Basin Electric is the designated transmission owner for this portion of the upgrade, which includes a new 230-kV substation named Northshore and an approximately 26.5-mile-long transmission line from the existing Neset Substation to the proposed Northshore Substation.

2.2 Alternatives

Project alternatives were considered for mitigating the violations noted in the DPA Study. SPP evaluated several options to mitigate the criteria violations, which included:

- A new 230-kV connection at Stanley, 115-kV line from Brookbank to New Town, 30-megavolt ampere (MVA) capacitor at New Town, and 12-MVA capacitor at Moe
- A new 230-kV line from either Blaisley or Stanley connecting to Belden, a 115-kV line from Belden to New Town, and an 18-MVA capacitor at New Town
- A new 345-kV line from Tioga to Rat Lake and a 115-kV line from Rat Lake to New Town

In the DPA Study, SPP concluded that the Project was ultimately chosen because it provided a reliable solution and was the second lowest cost. The lowest cost option was not viable, because it only mitigated the current violations with a large amount of capacitor banks needed for voltage support and did not allow for further substantial growth.

Further, Basin Electric requested agency review of an alternative route study area in addition to the proposed Study Area (see agency notification letter template in **Appendix F**). This alternative route study area deviated from the proposed Project Route approximately 0.5 mile south of US Highway 2. From the deviated point, the alternative route angled approximately five miles generally east and then angled south for approximately six miles into the proposed Northshore Substation. Basin Electric ultimately determined that the proposed Project Route was preferable to the alternative route based on several factors. The Project Route was selected to minimize impact to the environment and to accommodate existing and planned land uses, as well as to minimize construction and maintenance costs. The Project Route also has greater landowner acceptance and avoids U.S. Fish and Wildlife Service (USFWS) conservation easements, to the extent practicable.

Basin Electric believes that the Project Route is the most viable route alternative, and the Project Route follows and is the most direct route that also minimizes impacts on the exclusion, avoidance, selection, and policy criteria identified in NDAC Section 69-06-08-02.

2.3 Ten-Year Plan

Basin Electric filed a Ten-Year Plan with the Commission in July 2020. This Project is consistent with the Ten-Year Plan on file with the Commission.

3.0 SITE SELECTION CRITERIA

The Project Corridor is based on landowner participation, field surveys, known environmentally sensitive areas, review of Mountrail County and state transmission line requirements, and communications with local, state, and federal agencies. North Dakota has several site selection criteria that are considered by the Commission to determine suitability of the transmission line. Basin Electric has reviewed the criteria in NDAC Chapter 69-06-08 and has considered these criteria in Project design. These criteria are discussed 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 3-1** must be excluded in the consideration of a transmission facility route. Exclusion and avoidance areas may be located within a 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 the area must be included. Natural screening may be considered in determining the width of the buffer zone. **Figure 3-1** depicts the exclusion areas.

Table 3-1 Exclusion Areas

Exclusion Area	Present in Corridor/Route	Proposed Buffer	Section Addressed
Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; monuments; and wilderness areas.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	NA
Designated or registered state: parks; historic sites; monuments; historical markers; archaeological sites; and nature preserves.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	NA
County parks and recreational areas; municipal parks; and parks owned or administered by other governmental subdivisions.	Not present within Corridor/Route. The closest park or recreational area is the municipal park located in Tioga, North Dakota which is located over three miles southwest of the Project.	No impacts are anticipated and no buffer is proposed.	5.5
Areas critical to the life stages of threatened or endangered animal or plant species.	Not present within Corridor/Route. The closest area is piping plover designated critical habitat which is located over three miles northeast of the Project.	No impacts are anticipated and no buffer is proposed.	5.8, Figure 3-1
Areas where animal or plant species that are unique or rare to this state will be irreversibly damaged.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	5.8

Exclusion Area	Present in Corridor/Route	Proposed Buffer	Section Addressed
Areas within 1,200 feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.	Not present within Corridor/Route. The closest ICBM launch or launch control facility is approximately three miles (15,600 feet) from the Project.	No impacts are anticipated and no buffer is proposed.	3.6
Areas within 30 feet on either side of a direct line between ICBM launch or launch control facilities to avoid microwave interference.	Not present within Corridor/Route. The closest ICBM launch or launch control facility is approximately three miles (15,600 feet) from the Project.	No impacts are anticipated and no buffer is proposed.	3.6

3.2 Avoidance Areas

In accordance with NDAC Section 69-06-08-02(2), the geographical areas listed in **Table 3-2** 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. NDAC Section 69-06-08-02(2) 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. **Figure 3-1** depicts the avoidance areas.

Table 3-2 Avoidance Areas

Avoidance Areas	Present in Corridor/Route	Proposed Buffer	Section Addressed
Designated or registered national: historic districts; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.	Not present within Corridor/Route. The closest area is a Waterfowl Production Area, which is located over three miles east of the Project.	No impacts are anticipated and no buffer is proposed.	5.8, Figure 3-1
Designated or registered state: wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests; forest management lands; and grasslands.	Not present within Corridor/Route. The closest area is a Wildlife Management Area, which is located over four miles southwest of the Project.	No impacts are anticipated and no buffer is proposed.	Figure 1-4, Figure 3-1

Avoidance Areas	Present in Corridor/Route	Proposed Buffer	Section Addressed
Historical resources which are not specifically designated as exclusion or avoidance areas.	Archaeological sites, as identified through a Class I Literature Review and a Class III Cultural Resources Inventory are present in the Project Corridor. Two sites cannot be spanned by the transmission line and structures will be placed within the site. Test units were excavated within the site at the proposed structure locations to determine if the structure locations are contributing elements to the site's possible eligibility for the National Register of Historic Places (NRHP). The test units at the two structure locations indicated that they are not contributing elements but were too limited to evaluate the sites as a whole.	Avoidance strategies have been developed for all potentially eligible or unevaluated sites along the Project Corridor and in most cases involve placing protective fencing around site features during construction. Additional avoidance measures are outlined in Table 5-4.	5.4
Areas which are geologically unstable.	Landslide deposits as indicted by the North Dakota Geological Survey landslide mapping program are not present within the Corridor/Route. A geotechnical analyses will be performed and areas which are geologically unstable will be avoided and spanned as necessary.	No impacts are anticipated and no buffer is proposed.	4.2, 5.6, Figure 1-4, Figure 3-1
Within 500 feet of a residence, school, or place of business.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	3.6
Reservoirs and municipal water supplies.	Not present within Corridor/Route. The closet municipal water supplies are located in Tioga and Stanley, North Dakota.	No impacts are anticipated and no buffer is proposed.	Figure 3-1
Water sources for organized rural water districts.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	NA
Irrigated land.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	NA
Areas of recreational significance which are not designated as exclusion areas.	Not present within Corridor/Route. The nearest area of recreational significance would be the White Earth Dam, which is located approximately three miles north of the Project.	No impacts are anticipated and no buffer is proposed.	5.5

3.3 Selection Criteria

In accordance with NDAC Section 69-06-08-02(3), 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 the criteria listed in **Table 3-3**, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum.

Table 3-3 Selection Criteria

Selection Criteria	Potential Effects	Section Addressed
The impact upon agriculture:		
Agricultural production.	Negligible/minimal effect anticipated. Where practical, construction activities will be scheduled during periods when agricultural activities will be minimally affected or the landowner will be compensated accordingly. Landowners would be compensated for crop and forage loss that occurs as a result of construction and maintenance activities, and damage to soils would be redressed. Approximately 7 acres of cropland would be permanently removed from production for construction of the Northshore substation.	5.1, 5.5
Family farms and ranches.	Negligible/minimal effect anticipated. Transmission lines are a compatible use with existing family farms and ranches, and the Project will not displace any farms or ranches.	5.1, 5.5
Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.	There is no known irrigation within the Study Area, and, thus, no effects are anticipated. Participating landowners have not expressed concerns related to economically suitable irrigation on their land	NA
Surface drainage patterns and ground water flow patterns.	No impacts to surface drainage patterns or groundwater flow patterns are anticipated. The Project will be designed in such a manner that runoff from the upper portions of the watershed can flow unrestricted to the lower portion of the watershed.	5.7
The impact upon:		
Sound-sensitive land uses.	Negligible/minimal effect anticipated. Following construction, there will be a minimal amount of sound from the Project as a result of corona effects, which occur when air molecules near conducting wire are ionized due to changes in the electric field intensity at the conductor surface. The sound is most noticeable when conductors are wet as a result of precipitation.	5.3
The visual effect on the adjacent area.	Negligible/minimal effect anticipated. The Project will be visible to landowners and travelers along roadways. Existing transmission lines, oil and gas well pads, and roads are present in the viewshed.	Figure 1-4

Selection Criteria	Potential Effects	Section Addressed
Extractive and storage resources.	The Project would not directly affect any wells or drill rigs, because the Corridor/Route has been designed to avoid these areas and provide sufficient clearance for well maintenance and operation	NA
Wetlands, woodlands, and wooded areas.	Negligible/minimal effect anticipated. The Project will avoid direct impacts to all wetlands, with the exception of one wetland impact from an access route that will be permitted under Nationwide Permit 12. Trees/shrubs will be replaced consistent with the Commission's Tree and Shrub Mitigation Specifications.	5.5, 5.7
Radio and television reception, and other communication or electronic control facilities.	No effect anticipated.	5.2
Human health and safety.	No effect anticipated based on compliance with sound standards and design and construction standards to meet or exceed the National Electrical Safety Code. Regular maintenance and inspections will be performed during the life of the Project to confirm its continued integrity.	5.3
Animal health and safety.	No effect anticipated. Construction work will be coordinated with landowners to avoid impacts to livestock. Basin Electric is committed to mitigating potential impacts to wildlife as outlined in Section 5.8.	5.8
Plant life.	Negligible/minimal effect anticipated. The transmission line structures will result in less than one acre of permanent ground disturbance, including loss of the existing plant life. Trees and shrubs will be replaced consistent with the Commission's Tree and Shrub Mitigation Specifications. Temporarily disturbed areas will be restored as practicable.	5.5

3.4 Policy Criteria

In accordance with NDAC Section 69-06-08-02(4), 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 3-4** and may require the adoption of such policies and practices as appropriate.

Table 3-4 Policy Criteria

Policy Criteria	Potential Benefits	Section Addressed
Location and design.	The location is based on landowner participation, field surveys, known environmentally sensitive areas, and review of Mountrail County and state transmission line requirements. Project design will meet the requirements of the National Electrical Safety Code for the Heavy Loading District, Basin Electric, U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) design criteria, and other applicable local or national building codes.	1.4, 1.5, 3.1, 3.2, 3.6, 3.7, 4.0, 5.0, 6.0

Policy Criteria	Potential Benefits	Section Addressed
Training and utilization of available labor in this state for the general and specialized skills required.	Basin Electric has utilized several local firms in developing the Project and compiling this application and will continue to use local labor to the extent practicable.	5.1
Economies of construction and operation.	Basin Electric will utilize local contractors to the extent practicable.	5.1
Use of citizen coordinating committees.	Not applicable.	NA
A commitment of a portion of the transmitted product for use in this state.	The Project will meet the need for additional electric transmission capacity in western North Dakota as a result of increased load growth and will meet reliability and system stability requirements for the region.	1.0, 2.1
Labor relations.	No labor relations would be negatively affected by the Project.	NA
The coordination of facilities.	Existing facilities were considered in the location of the Project. Basin Electric will avoid impacts to existing infrastructure, other than the Neset Substation, which will be expanded as part of this Project. Interconnections to the local 115-kV system would be coordinated with Basin Electric's local member cooperatives.	Figure 1-4
Monitoring of impacts.	Basin Electric and the contractor will employ Best Management Practices during construction to monitor soil impacts and segregate topsoil. A stormwater pollution prevention plan will be prepared for the Project.	4.2.2, 4.9, 4.10, 5.6
Utilization of existing and proposed rights of way and corridors	Basin Electric has routed the Project parallel to existing roadways and section lines to the extent practicable.	Figure 1-4
Other existing or proposed transmission facilities.	Basin Electric has paralleled the Project with existing utility corridors as practicable.	Figure 1-4

3.5 Factors to be Considered

The North Dakota Energy Conversion and Transmission Facility Siting Act NDCC Section 49-22-09 lists the factors in **Table 3-5** to be considered in evaluating applications and designation of sites.

Table 3-5 Factors to be Considered

Factors to be Considered	Evaluation	Section(s) Addressed
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.	Effects of the location, construction, and operation of the Project on public health and welfare, natural resources, and the environment are described in Section 5.	5.0, Appendix B, Appendix D, Appendix E
The effects of new energy conversion and transmission technologies and systems designed to minimize adverse environmental effects.	The Project has been designed to minimize adverse environmental effects including utilizing bird flight diverters to avoid and reduce bird mortality.	5.8.2

Factors to be Considered	Evaluation	Section(s) Addressed
The potential for beneficial uses of waste energy from a proposed energy conversion facility.	Not applicable.	NA
Adverse direct and indirect environmental effects which cannot be avoided should the proposed site be designated.	Adverse direct and indirect environmental effects which cannot be avoided are described for each resource area in Section 5.	5.0
Alternatives to the proposed site which are developed during the hearing process and which minimize adverse effects.	Other alternatives were considered for the Project Route within the area between the existing Neset Substation and the planned Northshore Substation. Basin Electric believes that the Project Route is the most viable route alternative and the Project Route follows and is the most direct route that also minimizes impacts on the exclusion, avoidance, selection, and policy criteria identified in NDAC Section 69-06-08-02.	2.2, 3.1, 3.2
Irreversible and irretrievable commitments of natural resources should the proposed site be designated.	There are few commitments of resources associated with this Project that are irreversible and irretrievable, but these include those resources primarily related to construction.	NA
The direct and indirect economic impacts of the proposed facility.	Direct and indirect economic impacts of the Project include payments for participating landowners, employment, property tax for the substation parcel, transmission line tax payment to the state of North Dakota based on mileage and voltage, and sales/use tax on materials.	5.1
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.	No conflicts are anticipated with existing state, local government, or private entities' development plans.	6.0, Appendix F
The effect of the proposed site on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.	There are no designated scenic areas that will be affected by the Project. Two cultural resources reports were submitted to the State Historical Society of North Dakota (SHSND) for review, and concurrences were received on November 2, 2020 and December 28, 2020.	3.1, 3.2, 5.4, Appendix B
The effect of the proposed site on areas which are unique because of biological wealth or because they are habitats for rare and endangered species.	The effect of the Project on areas which are unique because of biological wealth or because they are habitats for rare and endangered species are described in Section 5.	3.1, 5.8
Problems raised by federal agencies, other state agencies, and local entities.	Basin Electric and its representatives contacted key local, state, and federal agencies per Section 69-06-01-05 of the NDAC for assistance in identifying concerns or issues within the Study Area.	6.0, Appendix F

3.6 Setbacks

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 3-6** and **Table 3-7** lists the setbacks utilized in designing the Project.

Table 3-6 Setback Distances as Designated by the Commission

Setback Type	Setback Distance
The geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.	1,200 feet [1]
Areas on either side of a direct line between ICBM launch or launch control facilities to avoid microwave interference.	30 feet
Residence, school, or place of business.	500 feet [2]

[1] The nearest ICBM launch or launch control facility is approximately three miles (15,600 feet).

[2] Per NDCC 49-22-05.1(2), a residence setback may be waived in writing by the owner of the residence.

Table 3-7 Setback Distances as Designated by Mountrail County

Setback Type	Setback Distance
From all section lines and the centerline of all township and county roads.	75 feet

The Project has been sited along existing roads and existing infrastructure to the extent possible to minimize impacts to farming and ranching operations and natural resources. Setbacks from existing infrastructure was used in designing the Project. Existing infrastructure including natural gas and crude oil pipelines and transmission lines are included in **Figure 1-4**.

3.7 County Criteria

The Project requires a Conditional Use Permit (CUP) from Mountrail County. In accordance with Article II, Section VI of the Mountrail County Zoning Ordinance, the following provisions must be satisfied for above ground utilities (Mountrail County 2018):

- Above ground utilities shall be placed in a manner which will not place undue hardship on normal farming operations.
- Above ground utilities shall conform with section lines, highway (state and federal) and railroad rights-of-way.
- The activities will not result in undue damage or injury to roads, bridges, rights-of-way in the county or to any county, public, or private property.
- Excavation costs for purposes of construction or maintenance of a utility shall be borne by the contractor or owner of said utility.

Basin Electric has designed the Project in accordance with these provisions and in coordination with County staff. Basin Electric plans to apply for a CUP in February 2021 and will file a copy of the approval to the Commission docket separately once it is received.

4.0 DESIGN AND CONSTRUCTION

4.1 Project Design

4.1.1 Transmission Line Design Parameters

The Project will consist of an approximately 26.5 mile-long 230-kV single-circuit transmission line with approximately 184 transmission line structures which includes 95 steel single-pole structures and 89 steel H-frame structures. The exact quantity and distribution of structure types may change during detailed design and construction.

The single-pole structures will range in height from approximately 70 feet to 115 feet with an average of 95 feet, depending on the required span distances between structures and area topography. H-frame structure heights will range from 70 to 120 feet with an average of 85 feet, depending on the required span distances between structures and area topography. The span between structures will typically range from 650 to 950 feet and average approximately 800 feet, depending on topography; taller structures could be used for crossing existing distribution and transmission lines or where unusual terrain exists. The single-pole structures will be designed to support three conductors and an overhead Optical Ground Wire (OPGW). The OPGW will provide lightning suppression and fiber optic communications between the Neset and Northshore substations for systems control. H-frame structures will have three conductors, one OPGW, and one additional shield wire. Tangent structures will be freestanding and directly embedded into the soil. Angle structures (used where the transmission line changes direction) and dead-end structures (used to provide longitudinal stability along the length of the line) will be constructed with concrete foundations. Guy wires will not be used. **Figure 4-1** and **Figure 4-2** provide diagrams of the single-pole structure and H-frame structure.

Project construction and design will meet the requirements of the National Electrical Safety Code (NESC) for the Heavy Loading District, Basin Electric, U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) design criteria, and other applicable local or national building codes. The Heavy Loading District refers to those areas (including North Dakota) that are subject to severe ice and wind loading. Minimum conductor clearance is measured at the point of greatest conductor sag and closest proximity to the ground. The transmission line will be constructed with clearances that exceed standards set by NESC. Minimum conductor height will be 26 feet over agricultural land, 28 feet over rural roads, and 30 feet over paved highways. **Table 4-1** includes a description of various Project design component characteristics.

Table 4-1 Transmission Line Design Components

Description of Design Component	Values
Voltage (kV)	230-kV
Length of transmission line	26.5 miles
Approximate total number of structures	184
Approximate number of single-pole structures	95
Approximate number of H-frame structures	89
Conductor size	1.345 inches
Typical minimum and maximum span distances between structures	650 – 950 feet
Average span	800 feet
Minimum and maximum structure height	70 – 120 feet
Average height of structures	85 – 95 feet
Average number of structures	6.6 per mile
Minimum conductor-to-ground clearance to agricultural land at 100 degrees Celsius (°C)	26 feet
Minimum conductor-to-ground clearance to rural roads at 100°C	28 feet
Minimum conductor-to-ground clearance to railroad at 100°C	38 feet
Minimum conductor-to-ground clearance to paved highways at 100°C	30 feet
Circuit configuration	Vertical and Horizontal

4.1.2 Substation Design Parameters

The existing 230-kV Neset Substation will require the expansion of the transmission bus bay and the necessary circuit breakers, disconnect switches, grounding switches, and protection and control equipment to support the addition of the 230-kV connection. No expansion of the substation fence is anticipated, and all upgrades will be constructed within the current substation footprint. The Neset Substation and proposed take-off structure location connecting to the transmission line are shown on **Figure 1-4**.

The proposed 230-kV Northshore Substation will be developed on an approximately 36-acre site to be owned by Basin Electric. The substation will require the installation of a 230-kV/115-kV transformer and the necessary bus, circuit breakers, disconnect switches, grounding switches, and protection and control equipment to support the 230-kV interconnection. The proposed Northshore Substation and transmission line take-off structure location are shown on **Figure 1-4**.

4.1.3 Supervisory Control and Data Acquisition System

A Supervisory Control and Data Acquisition (SCADA) system will interconnect the Neset and Northshore substations. Hard-wire system communications will utilize fiber optics within the OPGW between the two substations and microwave communications equipment will be installed for SCADA redundancy and to facilitate voice and data communications by field personnel. A microwave tower and dish will be constructed at the Northshore Substation. The microwave relay tower and dish will be approximately 190 feet high.

4.2 Construction Activities

4.2.1 Pre-construction Surveying and Geotechnical Analyses

Basin Electric and/or its contractors will perform initial transmission line survey work, consisting of survey control, route centerline location, profile surveys, and access surveys prior to construction. These surveys will likely be conducted concurrently with other pre-construction tasks.

Geotechnical analyses will be conducted at transmission line angle points and other locations to determine engineering requirements for structures. A truck-mounted auger will be transported to each site to drill a small-diameter borehole. Cuttings from each borehole will be evaluated to determine soil characteristics. Geotechnical analyses will be confined to a relatively small area needed for site access and equipment operations. Geotechnical locations will require an area totaling approximately 400 square feet (ft^2) for equipment setup and operations in addition to an access trail.

4.2.2 Site Preparation

The Project Corridor is relatively flat and the need for structure site leveling is expected to be minimal. It is anticipated that at some structure locations, blading of small areas (up to 40 feet by 40 feet for crane and manlift landings) may be required to level the ground surface to allow the safe operation of the equipment. Blading will be confined to the Project Corridor and will be accomplished using bulldozers or front-end loaders. Soil removed during leveling will be stockpiled and replaced following construction; special emphasis will be placed on salvaging topsoil to be used for reclamation. The ground will be re-graded to the approximate original contour and revegetated (rangeland) or tilled (cropland) when the work is completed. Temporary disturbance to soils will be mitigated by returning the sites to grazing and farming unless other arrangements are made with the landowner in order to facilitate the long-term maintenance of the transmission line.

The Northshore Substation site will be cleared and leveled in a manner similar to the transmission structures. Topsoil will be segregated from underlying soils and redistributed on disturbed areas. Excess soil will be spread around the sites and/or used for fill, where needed. Soil erosion will be controlled during construction using Best Management Practices. Installation of new equipment at the Neset Substation will be within the existing site, and no site clearing outside of the substation fence will be required.

4.2.3 Borehole Excavation

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

Borings for the pole holes will have an average diameter of five feet and an average depth of 20 feet. The single-pole structure will be lowered by crane into boreholes and the annulus around the structure will be backfilled with crushed granular material or excavated material as suitable. Surplus material (expected to total approximately 15 cubic yards [yd^3] at each tangent structure site) will be spread around the base of structures or hauled to an off-site location (i.e., area landfills) for disposal, in accordance with landowner wishes.

Approximately 20 structures will require reinforced concrete foundations consisting of a six-foot-diameter boring to an average depth of 20 feet. Approximately 20 yd^3 of surplus material will be either spread in the vicinity of the structure or disposed of in accordance with landowner wishes. Large volumes of excess soil will be disposed of at local landfills. Landfills typically need additional fill as cover for waste material. Disposal of waste material, including concrete spoil, will be in compliance with applicable regulations and will not include placement in wetlands or aquatic sites. Site-specific borehole diameters, depth, and the use of reinforced concrete foundations will be determined during geotechnical and engineering evaluations.

4.2.4 Structure Assembly and Erection

Structure components (i.e., structure segments, davit arms, hardware, insulators, and related materials) will be trucked to structure work site locations and assembled. Davit arms, 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 in the borehole (directly imbedded) or on reinforced

concrete foundations (i.e., self-supporting angle point and dead-end structures) using cranes or large boom trucks. The structures will then be plumbed and the hole backfilled, as previously described.

4.2.5 Conductor Stringing and Tensioning

Following structure construction, crews will install the conductors and OPGW using conductor stringing sheave blocks and line pulling and tensioning equipment. The conductor and OPGW will be kept under tension during the stringing process to keep the conductor clear of the ground and obstacles that could damage the conductor and/or OPGW surfaces.

Pulling and tensioning sites are typically located at 10,000-foot intervals and at angle point structures. Sites along tangent structures are maintained within the Project Corridor, those at angle points typically are partially outside of the Project Corridor. Stringing equipment generally consists of wire pullers, tensioners, conductor reels, OPGW wire reels, and sheave blocks. About 10,000 feet of conductor and OPGW will be installed for each pull. After the conductor/ground wire is pulled for a section of line, it is tightened or sagged to the required design tension in compliance with the NESC. The process will be repeated until all of the conductor and OPGW are pulled through all sheaves. Conductor stringing also will require access to each structure for securing the conductor to the insulators or OPGW to each structure, once final line sag is established. A typical temporary pulling and tensioning site work site and temporary splicing site are shown schematically in **Figure 4-3**.

For public safety and property protection, temporary wooden guard structures will be used to provide support when stringing conductor and OPGW across existing power lines, roads, highways, railroads, and other linear obstacles. The structures will be removed when stringing is complete; the pole borings will be backfilled and the temporary support structure sites will be reclaimed. All temporary wooden guard structures will be installed within the Project Corridor.

4.3 Project Access

4.3.1 Transmission Structure Site Access and Traffic

Construction access to transmission structures will involve the use of existing roads where available and temporary overland access trails, where necessary. The use of temporary overland access trails between structure sites will not require new construction but will result in temporary disturbance. Occasional access from section line trails could result in temporary disturbance along the Project Corridor; however, such disturbance will be limited to a 12-foot-wide track (approximately) and only long enough to provide vehicle access directly to structure locations. Some additional access disturbance could occur if truck or vehicle turnarounds are needed; however, the use of structure work sites will be encouraged.

Existing access roads (typically paved or maintained with a gravel or aggregate base) will be used in their original condition. Basin Electric will be responsible for reimbursing the appropriate public entity for the repair of any damage caused by construction equipment movement and will return existing roads to original or better condition following construction. Basin Electric will not be responsible for maintaining roads following construction. Basin Electric will not be responsible for maintaining fences and gates following construction and restoration; however, access gates that will be installed during construction will be left in place following construction.

Line segments that are parallel to section lines that do not have established roadways will utilize the 66-foot-wide public right of way (ROW) to the extent practicable. Basin Electric will restore disturbed areas to pre-construction conditions, to the extent practicable, and will not be responsible for the long-term maintenance of such section line trails. Any fences, gates, or similar features that will be removed during construction will be replaced or rebuilt. Gates and fences that will be installed during construction will be left in place for future use.

4.3.2 Substation Site Access and Traffic

Substation components will be trucked to the site on local highways and roads and off-loaded using cranes and similar equipment. Concrete and aggregate will be trucked in from local sources. A new access road for the proposed Northshore Substation will be constructed to provide vehicle and equipment access to the substation from the adjacent public road and will consist of a compacted aggregate surface. The existing access road to the Neset Substation will be utilized for construction access.

4.3.3 Temporary Overland Access and Land Requirements

Temporary impacts are those impacts that result during construction to accommodate equipment and temporary construction activities outside of the areas that will remain as the permanent Project footprint during operation. Temporary overland access will be used in areas without existing roads. Access through cultivated fields will be, to the extent practicable, during the non-growing season. Landowners will be compensated for loss of crops caused by construction activities. Gates may be installed to facilitate access to some structures and the Project Corridor. The gates will be left in place, following construction activities. Permanent access roads to the Project Corridor or structures will not be maintained.

Temporary access routes will result in a 12-foot-wide temporary disturbance and compaction of vegetation and soils. Natural vegetation along these temporary access routes will recover quickly, primarily because grading will not be required. Temporary overland access routes will be subject to the same cultural resource and vegetation surveys as the Project Corridor. Landowners will be compensated for access routes where public access does not exist.

A 100-foot x 125-foot (12,500 ft^2) temporary work site will be located at each structure location and within the Project Corridor. The area will be graded, if required, to ensure safe movement and operation of heavy equipment. The Project will require approximately 53 acres of temporary impacts for structure installation, as shown in **Table 4-2**.

Pulling and tensioning sites and splicing sites will result in temporary disturbance to lands within and outside of the Project Corridor. Pulling and tensioning areas will temporarily disturb a total of 75,000 ft^2 (1.72 acres) at each angle and/or dead-end structure location. Approximately 10 to 15 pulling and tensioning sites will be needed at angle structure locations, totaling approximately 17 to 26 acres. Pulling and tensioning sites at the angle structures will extend beyond the Project Corridor. Additional areas will be needed along long straight-line expanses of tangent structures. Approximately 10 to 15 pulling and tensioning sites will be required along tangent structures. Each pulling and tensioning site will occupy approximately 37,500 ft^2 within the Project Corridor. Pulling and tensioning along tangent structures will result in temporary impacts from approximately nine to 13 acres within the Project Corridor.

Splicing sites, measuring approximately 12,500 ft^2 (0.29 acre), also will be required at approximately 10,000-foot-increments within the Project Corridor. Approximately 10 to 15 splicing sites will be required for construction, resulting in temporary impacts to three to four Project Corridor acres. The conceptual configuration of temporary work sites, 12-foot-wide access trail, structure locations, pulling and tensioning sites, and splicing sites is shown in **Figure 4-3**.

A temporary 15-20 acre laydown area will be located at the Northshore Substation site and would be used for the duration of construction. The Northshore Substation site is shown on Map 12 of **Figure 1-4**. Alternate laydown areas may be utilized by the construction contractor, if necessary. To avoid or minimize impacts on sensitive resources, construction laydown areas are typically located at previously disturbed or developed locations, such as vacant lots, existing utility yards, or parking lots. Where existing yard locations are not available, preferred locations for yards are undeveloped areas, such as grazing land or cropland that are cleared and flat; have all-weather access; and do not contain streams, wetlands, or other environmentally sensitive resources. Laydown yards consist of flat or gently sloping lands where construction material would be placed on pallets or cribbing. No topsoil would be removed and minimal, if

any, grading or re-grading is expected to take place at these facilities. Laydown areas would be returned to pre-construction conditions upon completion of the Project.

Approximately 35 borings are required for geotechnical analyses. Each boring site will temporarily affect as much as 400 ft^2 within the Project Corridor and at designated structure sites. The geotechnical surveys will be conducted during low precipitation conditions, which will minimize impacts to the soils and crops.

Estimated temporary land requirements associated with Project access and construction activities are identified in **Table 4-2.** As noted in **Table 4-2**, temporary impacts associated with the Project will affect approximately 151 to 170 acres.

4.4 Permanent Land Requirements

Permanent impacts are those required for Project operation, consisting mostly of individual structure locations. Permanent land disturbance has been estimated for self-supporting tangent structures, self-supporting dead-end structures, and self-supporting turning structures. Each tangent structure will require directly embedding one to two 3-foot-diameter poles at each structure location, thus occupying a total of 7.07 to 14.13 ft^2 per structure. Turning (angle) structures and dead-end structures will be larger, with one to three 6- to 8-foot-diameter poles, thus each occupying approximately 50.27 to 84.82 ft^2 per structure. Approximately 21 turning and dead-end structures will be required for the transmission line. Tangent, dead-end, and angle structures will be self-supporting, thus guy wires will not be required. Estimated Project permanent ground disturbance impacts are included in **Table 4-2**.

Landowners are contacted several times throughout the routing process. Survey permissions are requested from each landowner along the route in order to allow access for engineering and environmental surveys. Once a route is finalized, Basin Electric goes through a series of steps throughout the process of acquiring the ROW easements for the transmission line. Title searches going back 30+ years are completed to identify current ownership and all encumbrances that need to be addressed. A market analysis was conducted by a third-party appraiser to identify the current land values, which were in turn used to establish monetary offers for the easements. Negotiations with landowners occur in an effort to acquire easements; these negotiations may take place over several visits.

The same steps described above also are used for state lands and railroads. This may result in the ROW rights being granted in other forms such as permits or leases.

Table 4-2 Estimated Project Ground Disturbance Impacts

Project Component	Disturbance Assumptions	Impact Multiplier [1]	Temporary Impact (acres)	Permanent Impact (acres)
Neset Substation	Temporary: None	1 existing substation	None	None
	Permanent: None			
Northshore Substation and access road	Temporary: 15 acres	1 new substation	15	7
	Permanent: 7 acres			
Single-pole structures	Temporary: 100 ft x 125 ft area = 12,500 ft^2 = 0.29 acres	95 structures (82 direct embed; 13 angle and/or dead-end)	27.55	-
	Direct embed Permanent: 3 ft diameter = 7.07 ft^2 = <0.0002 acres		-	0.02
	Angle and/or dead-end Permanent: 8 ft diameter = 50.27 ft^2 = 0.0012 acres		-	0.02
H-frame structures	Temporary: 100 ft x 125 ft area = 12,500 ft^2 = 0.29 acres	89 structures (81 direct embed; 6 two-pole angle and/or dead-end; 2 three-pole angle and/or dead-end)	25.81	-
	Direct embed Permanent: 3 ft diameter area x two poles = 14.13 ft^2 = <0.0004 acres		-	0.03
	Angle and/or dead-end Permanent: 6 ft diameter x two poles = 56.55 ft^2 = 0.0013		-	0.01
	Angle and/or dead-end Permanent: 6 ft diameter x three poles = 84.82 ft^2 = 0.0019		-	<0.01
Pulling and tensioning areas (angle structures)	Temporary: 125 ft x 300 ft area x two = 75,000 ft^2 = 1.72 acres	10-15 pulling and tensioning areas	17.2-25.8	None
	Permanent: None			
Pulling and tensioning areas (direct embed)	Temporary: 125 ft x 300 ft area = 37,500 ft^2 = 0.86 acres	10-15 pulling and tensioning areas	8.6-12.9	None
	Permanent: None			
Splicing sites	Temporary: 100 ft x 125 ft area = 12,500 ft^2 = 0.29 acre	10-15 splicing sites	2.9-4.35	None
	Permanent: None			
Structure site access	Temporary: 12 ft wide	26.5 miles of structure site access along Project Corridor	38.55	None
	Permanent: None			
Laydown area(s)	Temporary: 15-20 acres	-	15-20	None
	Permanent: None			
		Total (acres) [2]	**150.61-169.96**	**7.09**

[1] Impact multipliers are based on preliminary engineering design and could change during final design.

[2] Total impact areas may overestimate actual impacts.

4.5 Construction Waste Management

Typical waste materials generated from construction activities include miscellaneous lumber and shipping materials used to protect equipment during transportation, paper products, soda cans, food-related materials, and sanitary waste. Waste from construction materials and rubbish from all construction areas will be collected, hauled away, and disposed in an approved landfill. Sanitary waste will be disposed through arrangements with local municipal sanitary waste treatment facilities.

Material staging areas and vehicle maintenance and refueling areas will not be located near waterways. If any of the material staging areas include vehicle and equipment refueling or storage of petroleum products in excess of 1,320 gallons, a Spill Prevention, Control, and Countermeasure (SPCC) plan will be developed. The SPCC plan will address: 1) operating procedures to prevent spills; 2) control measures to prevent a spill from reaching navigable waters; and 3) countermeasures to contain, clean up, and mitigate the effects of a spill that reaches navigable waters. Additionally, spill containment and clean up materials (e.g., absorbent material, shovels) will be available at every work site. The materials will be used to contain and clean up oil and hydraulic spills that may result from equipment leaks. Workers will be trained in procedures to follow to contain and clean up released hazardous materials.

4.6 Construction Sequence, Work Force, and Equipment

Transmission line construction will generally follow a sequential set of activities performed by crews proceeding along the length of the line. **Table 4-3** lists the construction activities. The sequential nature of construction will minimize activities at a given work site.

Table 4-3 Conventional Personnel, Equipment, and Time Requirements for Construction

Task	Number of Personnel	Equipment	Length of Time
Structure site clearing and vegetation management	4–6	Pickups, all-terrain vehicles (ATVs)	1 month
Gate installation	3	Flatbed and pickup trucks	1 month
Structure assembly	6–8	Pickups, cranes, material trucks, rubber-tired crane, 4x4 pickups	4 months
Hole excavation	2–3	Rotary drilling rigs, backhoes, pickups, rubber-tired digging equipment, ATVs, portable compressors	4 months
Structure erection	6–8	Rubber-tired cranes, boom trucks, 4x4 pickups	5 months
Ground wire and conductor stringing	16–20	Pickups, manlifts/boom trucks, hydraulic tensioning machines, reel trailers	3 months
Cleanup	4	Pickups, dump trucks, flatbed trucks	Duration of Project
Concrete foundations	10	Excavators, concrete trucks, skid steer, cranes	1–2 months
Equipment installation	10	Cranes and trucks	3–4 months

4.7 Worker Safety and Health Protocol

All construction and maintenance activities will be carried out in compliance with applicable federal and state worker safety regulations, as defined under the Occupation Safety and Health Administration (OSHA) Act of 1979. Worker safety and health is administered by Basin Electric's Transmission Systems Maintenance Division, which is a member of the National Safety Council.

4.8 Environmental Protection Measures and Policies

Project-specific mitigation measures have been developed to avoid or reduce the severity of environmental impacts. The measures are applicable to Project construction and operation. These measures are discussed under the Mitigation sections of each resource in Chapter 5.0, Environmental Analysis. Basin Electric's Policies and Commitments to Limit Environmental Impacts are included in **Appendix A**.

4.9 Reclamation

Following construction, disturbed areas will be graded and/or re-sloped to their approximate original contours to minimize erosion and visual alteration. In grassland or pasture areas, disturbed areas will be reseeded with native species unless an alternate seed mix is required by the landowner. Cultivated land will be tilled and returned to production. Fences and gates damaged as a result of the Project will be repaired.

Rangeland from which vegetation has been removed, destroyed, or damaged will be reclaimed and revegetated. Reclamation activities, weather permitting, will be ongoing throughout construction and will take place as soon as construction activities are completed in a particular area. Drainage structures and similar improvements will be removed from areas to be reclaimed, where appropriate, and the area will be revegetated using a native seed mixture, as recommended by the County Agricultural Extension Service or the Natural Resources Conservation Service (NRCS) unless an alternate seed mix is required by the landowner.

Ruts and scars from overland travel will be leveled to break up compacted soils and aid in returning areas to approximate original contours. Cultivated areas disturbed by overland travel will be leveled and tilled to break up compacted soils (if necessary) and returned to production.

The optimal timing for revegetation success will be spring or fall to coincide with seasonal rains. Mulching may be required to protect seeded areas from erosion. Other erosion control devices, such as water bars, terracing, or water diversion structures will be constructed where needed. Follow-up inspections will be carried out during the next growing season. Areas that did not become revegetated will be reseeded again, as necessary.

The reclamation procedures described above will be applied to disturbed areas including temporary access, staging areas, the Project Corridor, and other areas disturbed by Project activities.

4.10 Operation and Maintenance

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

- Basin Electric's preventive maintenance program for the transmission line includes aerial and ground inspections. Aerial inspections will be conducted at least two times each year. Ground patrols will be conducted annually for the first three or four years, and less frequently thereafter. Climbing inspections of structures will be conducted on a five-year cycle with every fifth structure inspected each year. Inspections and patrols will involve the use of vehicles in areas where there is suitable vehicle access.
- Maintenance activities will include repairing damaged conductors, inspecting and repairing structures, replacing damaged and broken insulators, and tightening hardware.
- Basin Electric will maintain any gates it initially installs and continually uses for access.
- Basin Electric will remove trees that pose a clearance or safety problem to the operation of the transmission line. Specific requirements of the National Electric Reliability Council will be followed. This activity will be completed in accordance with the landowner easement.

- Basin Electric will operate the Northshore and Neset Substations throughout the Project life.

Treatment of vegetation within the Project Corridor will include the selective removal of trees to prevent contact with the transmission line conductors. Disposal of cut trees and/or shrubs will be in a manner acceptable to the landowner and in accordance with applicable state waste management rules. The need for tree and/or shrub removal is expected to be minimal as areas with trees and/or shrubs were generally avoided when possible during detailed routing.

4.11 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 ENVIRONMENTAL ANALYSIS

5.1 Local Economics

5.1.1 Description of Resources

Mountrail County had a population of 7,673 in 2010, with an estimated 37.6 percent increase through 2019 for an estimated total population of 10,545 in 2019 (U.S. Census Bureau 2020). The County contains 1,825 square miles of land, with a density of approximately 4.2 persons per square mile. As of 2019, it is estimated that approximately 11.6 percent of the county population is 65 years or older, while approximately 8.5 percent of the population is under 5 years of age.

Recent oil and gas development activity has had a large impact on the local economy. Mountrail County ranks third in barrels of oil produced per county in North Dakota with 5,830,194 barrels produced in September 2020 (NDDMR 2020b) and ranks third in cubic feet of gas produced with 11,011,210 thousand cubic feet produced in September 2020 (NDDMR 2020c).

Agriculture continues to play a significant role in the Mountrail County economy with 584 farms (USDA, NASS 2017). According to the 2017 Census of Agriculture, total market value of agricultural products produced in Mountrail County was $135,742,000 (78% crops and 22% livestock sales). Principal crops include wheat, barley, oats, corn, and soybean; cattle are the primary livestock.

5.1.2 Impacts/Mitigation

The Project will have positive economic impacts for the local population, including payments for participating landowners, employment, property tax for the substation parcel, transmission line tax payment to the state of North Dakota based on mileage and voltage, and sales/use tax on materials. No residents will be displaced.

Landowner compensation has been established under individual easement agreements and includes compensation for loss of crops caused by construction activities. In general, agricultural areas surrounding each structure can still be farmed. Project construction will not cause additional impacts to leading industries within Mountrail County. There is no indication that any minority or low-income population is concentrated in any one area of the Project, or that the Project will be placed in an area occupied primarily by any minority or low-income group.

In addition, wages and salaries paid to local contractors and workers in Mountrail County will contribute to the personal income of the region. Additional personal income will be generated for residents in the county as well as the state by circulation and recirculation of dollars paid out by Basin Electric as business expenditures and state and local taxes. Expenditures made for equipment, energy, fuel, operating supplies, and other products and services will benefit businesses in the county and the state.

It is likely that general skilled labor is available either in the county or the state to serve the basic infrastructure and development needs of the Project. Specialized labor will be required for certain components of the Project. It is likely that this labor will be imported from other areas of the state or from other states, as the relatively short duration of construction does not warrant special training of local or regional labor. Balancing the use of local contractors and imported specialized contractors will likely alleviate any labor relations issues.

No effects on permanent housing are anticipated. During construction, out-of-town laborers will likely use lodging facilities in and around the cities of Tioga, Stanley, and/or New Town.

5.2 Public Services

5.2.1 Description of Resources

Local Government Services

Within the Study Area is a network of established roads and utilities that provide access and necessary services to cities, communities, homesteads, and farms. There are no incorporated or unincorporated cities within the Study Area. The Project Corridor is located approximately four miles east of Tioga, two miles north of White Earth, five miles west of Ross, and 16 miles north of New Town. The county seat of Mountrail County is Stanley.

Transportation

Roads located within the Study Area are US Highway 2, county roads (gravel graded and drained roads), private roads, township roads, section lines, private roads, oil and gas access roads, and sand and gravel mine access roads. Roads within the Study Area fall under the North Dakota Department of Transportation (NDDOT) District Boundary of Williston, North Dakota.

Air Traffic

There are no public airports or private airports/airstrips within the Study Area. The closest airport/airstrip is the Tioga Municipal Airport southeast of Tioga, North Dakota which is located approximately two miles southwest of the Neset Substation. The nearest airport certified for commercial carrier operations is the Williston Basin International Airport located approximately 41 miles southwest of the Study Area. Spray planes used for aerial application of pesticides or fertilizer operated by local spray plane operators may occur within the Study Area.

Water Supply

The Western Area Water Supply Authority supplies potable water to communities near the Study Area. Basin Electric will evaluate obtaining water for construction from the cities of Tioga, Stanley, or New Town and truck the water to the construction site. Basin Electric will consult with towns to obtain the appropriate permits and/or approvals.

Telecommunications

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 (kHz) to approximately 1,000 megahertz (MHz), which overlaps with the frequencies used for AM and FM radio and some television signals.

5.2.2 Impacts/Mitigation

Local Government Services

No impact is expected to local services.

Transportation

The transportation of materials and equipment will be conducted in accordance with the North Dakota Department of Transportation regulations. All necessary provisions will be made to conform to safety requirements for maintaining the flow of public traffic. Construction operations will be conducted to offer the least possible obstruction and inconvenience to public traffic. Public roads, section lines and existing trails will be used, to the extent practicable, to access the transmission line (see Section 4.3). Fugitive dust emissions generated as a result of surface disturbance activities and vehicle use of access roads will be controlled by the periodic application of water, if necessary. The speed of vehicles traveling on unpaved

roads will be limited, to the extent practicable, to reduce the generation of fugitive dust. Vehicles and equipment will be properly maintained to avoid excessive emission of exhaust gases due to poor engine adjustments.

Air Traffic

The Project will not be considered an obstruction to air navigation under Federal Aviation Administration regulations. No part of the Project will exceed 200 feet in height above ground level. The microwave tower will be 190 feet in height above ground level and would be the tallest structure associated with the Project. The Project will include bird flight diverters, which can provide visibility during the day for low flying aircraft.

Water Supply

Construction will not significantly impact local water supply. Construction water estimates are subject to change due to final site investigation and weather. Water for construction will be brought on-site via trucks. The abandonment of existing wells is not required. The Project will not require appropriation of surface water or permanent dewatering. Temporary dewatering of groundwater (i.e., locally lowering groundwater levels in the vicinity of the excavation) may be required during construction of transmission structures.

Telecommunications

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.

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.

5.3 Public Health, Welfare, and Safety

5.3.1 Description of Resources

Audible Sound, Corona Discharge, and Aeolian Vibration

Corona from 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. Aeolian vibration is produced when a steady flow of wind interacts with an object such as a transmission line. Wind must blow steadily and perpendicular to the lines to set up oscillating forces.

The Study Area is primarily rural and agricultural. There are no populated towns within the Study Area. The existing acoustic environment is defined primarily by distant traffic sound from the nearby arterial highways and will also include intermittent aircraft overflights and sound from agricultural operations. 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.

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 (NIEHS 1999).

Hazardous Materials/Hazardous Waste

Fuels, hydraulic fluids, and other hazardous substances may be used during construction of the Project. Potentially hazardous materials may also be encountered during construction associated with aboveground storage tanks containing water, brine, condensate, or hydrocarbon mixtures associated with oil/gas development. Other potential hazards may exist in rural areas from farm dumps and agricultural chemicals.

5.3.2 Impacts/Mitigation

Sound from Maintenance and Construction

Project construction and maintenance may cause short-term but unavoidable sound impacts due to construction and equipment. Construction and maintenance activities will also generate traffic that will have potential sound effects, such as trucks travelling to and from the Project on public roads. Sound generated by construction activities is generally exempt from state and local noise regulation. Once the Project has been built, no significant construction sound impacts are anticipated. Project maintenance will occur periodically but is not expected to result in significant sound generation.

Corona Discharge

Corona effects occur when air molecules near conducting wire are ionized due to changes in the electric field intensity at the conductor surface. 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. Corona effects are expected to be low enough that no objectionable audible sound will result outside the Study Area. The sound is most noticeable when conductors are wet as a result of precipitation.

Aeolian Vibration

Aeolian vibration is produced when a steady flow of wind interacts with an object such as a transmission line. Wind must blow steadily and 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. However, aeolian vibration is expected to be minimal outside of the Project Corridor.

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

As with any construction activity, there is the possibility of accidentally spilling fuel, hydraulic fluid, or other hazardous substances during construction of the Project. The potential of such events will be minimized through implementation of a SPCC plan, which will include the following:

- Construction equipment will be equipped with spill cleanup kits.
- Equipment refueling will take place at secure areas, away from wetlands or drainages.
- Workers will be trained in spill clean-up and the use of the spill cleanup kits.
- Burning waste materials within the Project Corridor will not be permitted and all waste materials will be disposed of at permitted waste disposal areas or landfills.

These measures will ensure that surface and groundwater quality will not be degraded through inadvertent spillage of contaminants.

5.4 Cultural Resources

5.4.1 Description of Resources

Metcalf Archaeological Consultants, Inc. (Metcalf) conducted a Class I Literature Review and Class III Cultural Resources Inventory for the Project. The results of these studies are summarized in the memorandum included in **Appendix B**. The cultural resources survey corridor is shown on **Figure 5-1**.

Class I Literature Review

In May 2020, staff at the State Historical Society of North Dakota (SHSND) conducted a Class I Literature Review through a file search of the North Dakota Cultural Resources Survey (NDCRS) data files maintained by the SHSND to determine if any cultural resources have been recorded or if any cultural resource investigations have been conducted within the Project Corridor and the surrounding mile search area.

The Class I Literature Review search revealed that 233 cultural resources have been recorded in the search area. These resources consisted of 61 precontact sites, 64 precontact site leads, 11 precontact isolated finds, four precontact/historic/multi-component sites, 23 historic sites, eight historic site leads, six historic isolated finds, 29 architectural sites, one architectural site lead, and 26 cultural heritage sites. The majority of the precontact and cultural heritage sites were stone feature sites. Six precontact sites were crossed by or are adjacent to the Project Corridor. There were also 14 prehistoric site leads crossed by or adjacent to the Project Corridor, but the majority of these have vague location data and have boundaries encompassed by either 40 acre or 160-acre blocks.

The Class I Literature Review search revealed that 98 cultural resource projects have been conducted in the search area. These projects consisted of 36 related to oil/gas development, 20 related to road/highway construction, 26 related to electric/utility projects, six related to water projects, and 10 miscellaneous projects. The Class I Literature Review was updated in December 2020 by Metcalf and revealed that 143 cultural resources have been recorded in the smaller search area. These resources consist of 41 precontact sites, 38 precontact site leads, eight precontact isolated finds, one multi-component site, four historic sites, ten historic site leads, five historic isolated finds, 14 architectural sites, and 22 cultural heritage sites.

The manuscript files search revealed that 51 cultural resource projects have been conducted in the smaller search area. These projects consist of 16 related to oil/gas development, 11 related to road/highway construction, nine related to electric/utility projects, four related to water projects, four fiber optic projects, four telecommunications towers, and three material source projects.

Class III Cultural Resources Inventory

Metcalf conducted a Class III Cultural Resources Inventory for the Project. The objective of the inventory was to locate any cultural resources located within the area of potential effects, to determine whether those resources qualify for inclusion on the National Register of Historic Places (NRHP), and assess the effect that the Project may have on those cultural resources that qualify for the NRHP. Fieldwork was conducted between June 30 and August 12, 2020 and November 19, 20, and December 3, 2020.

Six previously recorded sites were investigated and 16 sites were newly recorded. Twenty sites will be spanned by the transmission line. Two sites cannot be spanned by the transmission line and structures will be placed within the site. Following coordination with SHSND Chief Archaeologist Andrew Clark on how to proceed, test units (1 x 1-meter) were excavated within the two sites at the proposed structure locations to determine if the structure locations are contributing elements to the site's possible eligibility for the NRHP. The test units at the two structure locations indicated that those portions of the sites are not contributing elements, but the field investigation was too limited to evaluate the sites as a whole. Therefore, avoidance strategies have been developed for all eligible or unevaluated sites along the Project Corridor and in most cases involve avoidance of impacts to the sites and placing protective fencing around site features during construction. **Table 5-1** list the previously recorded and newly recorded sites as well as the avoidance strategies for each site.

Table 5-1 Recorded Sites and Avoidance Strategies

Smith #	Site Category	Site Type	Eligibility for NRHP	Avoidance Strategies
32MN38	Precontact	Stone Features	Unevaluated	Avoidance, fencing, use of rubber tires on construction vehicles
32MN39	Precontact	Unknown	Unevaluated	Avoidance of identified site within block
32MN40	Precontact	Stone Features	Unevaluated	Avoidance
32MN42	Precontact	Stone Features	Unevaluated	Avoidance to the extent possible, protective fencing around stone features, place structures at tested location
32MN43	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN44	Precontact	Cultural Material Scatter	Unevaluated	Avoidance to the extent possible, place structures at tested location, use of rubber tires on construction vehicles
32MN1608	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1609	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1610	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1611	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1612	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1613	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1614	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1615	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1616	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1617	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1618	Historic, Architectural	Structure, Dump, Foundations	Not Eligible	No avoidance
23MN1619	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1620	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1621	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1622	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MNX1049	Precontact	Stone Features	Unevaluated	Avoidance, fencing

A cultural resources report was submitted to the SHSND for review and concurrence was received on November 2, 2020 (**Appendix B**). A second cultural resources report was submitted to the SHSND for review and concurrence to accommodate adjustments to the Project Corridor and concurrence was received on December 28, 2020 (**Appendix B**).

5.4.2 Impacts/Mitigation

Basin Electric intends to avoid impacts to cultural resources during construction as recommended by the Metcalf Class III report. Basin Electric will implement the following mitigation measures for the Project:

- Structures will be placed within the 1 x 1-meter test units at two sites, 32MN42 and 32MN44. The test units showed those portions of the sites were not contributing elements to the sites' potential NRHP eligibility.
- All construction vehicles will use rubber tires when driving within the site areas and construction in the site areas will only occur during dry conditions.
- Avoidance strategies have been developed for all eligible or unevaluated sites along the Project Corridor and in most cases involve placing protective fencing around site features during construction.
- Basin Electric personnel, contractors, and subcontractors will be directed not to engage in the illegal collection, damage, or vandalism of historic and prehistoric resources.
- If any previously unknown cultural resources or human remains are discovered during Project construction, all work within 200 feet of the discovery that might adversely affect the cultural resource or human remains will cease until the agencies, in consultation with the appropriate parties, can evaluate the discovery. The agencies will be notified immediately (within 24 hours) and will have a qualified professional archaeologist and tribal representative (if necessary) with the proper expertise for the suspected resource type on-site as soon as possible. Construction in the immediate vicinity of the discovery will not proceed until authorized by the agencies.
- An Unanticipated Discoveries Plan has been prepared that outlines the procedure utilized to address any unanticipated discoveries of cultural resources, including possible human remains (**Appendix D**). In the event that unanticipated discoveries are made during construction, the Unanticipated Discoveries Plan provides direction to on-site personnel and their consultants regarding proper procedures for addressing the discoveries. In the event that burials are discovered during construction, construction would stop within 100 feet of the site and the site will be protected until the Mountrail County Sheriff's office has been contacted. The Sheriff will contact the North Dakota State Forensic Examiner to determine if the remains are associated with a crime scene. If the remains are determined not to be part of an active crime scene or investigation, the North Dakota Chief Archaeologist will be contacted to coordinate how to proceed.

5.5 Land Use, Vegetation, and Recreational Resources

5.5.1 Description of Resources

Land Use

The Study Area is located in rural North Dakota in an area predominantly comprised of cultivated land, hayfields, pasturelands, and grasslands. Accordingly, much of the Study Area is utilized for agriculture supporting both livestock grazing and crops. Wooded areas within the Study Area are limited to shelterbelts between fields, windbreaks surrounding farmsteads, along drainages, and near wetlands.

Land cover classifications, including acreage within the Study Area and Project Corridor, are shown in **Table 5-2** and **Figure 5-2**. The Project Corridor is comprised primarily of herbaceous grasslands (62.1 percent) and cultivated lands (27.1 percent).

Table 5-2 Land Cover

Land Cover	Acreage within Study Area	Acreage within Project Corridor
Barren Land	8.0	0.0
Cultivated Crops	5,069.1	116.3
Deciduous Forest	246.6	5.2
Developed, High Intensity	1.8	0.0
Developed, Low Intensity	117.7	1.3
Developed, Medium Intensity	17.8	0.1
Developed, Open Space	424.1	10.1
Emergent Herbaceous Wetlands	259.4	4.1
Hay/Pasture	135.6	4.6
Herbaceous	9,810.9	264.4
Mixed Forest	50.1	2.5
Open Water	347.7	6.0
Shrub/Scrub	363.4	12.1
Woody Wetlands	19.8	0.0

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

The USFWS manages lands including their easements within the Project Corridor and Study Area (**Figure 1-4** and **Figure 5-3**). These easements are agreements between landowners and the USFWS to protect wetlands that are vital to wildlife habitat. The USFWS owns the perpetual rights to certain wetland basins within wetland easements that cannot be burned, drained, filled, or leveled without authorization under a Special Use Permit from the USFWS. The upland portions of wetland easements may be developed without a permit as long as the wetland basins are avoided. The USFWS Lostwood Wetland Management District reviewed the Project Corridor and proposed structure locations and confirmed that all proposed structures avoid USFWS easement protected wetlands and that the Project Route avoids all grassland easement tracts.

The North Dakota Game and Fish Department (NDGFD) holds Private Land Open to Sportsmen (PLOTS) agreements with private landowners within the Project Corridor and allows walk-in public hunting access to otherwise private land. Normal farming and ranching activities are allowed in these PLOTS agreements. Within the Project Corridor there are approximately nine acres within enrolled PLOTS agreements (**Figure 1-4** and **Figure 5-3**).

Conservation Reserve Program (CRP) lands are administered by the Farm Service Agency (FSA) through the U.S. Department of Agriculture (USDA). In exchange for yearly compensation, CRP lands are removed from agriculture production and planted with species that will improve environmental quality and health, with a long-term goal of establishing valuable land cover to improve water quality, prevent soil erosion, and reduce the loss of wildlife habitat (USDA, FSA 2019). Specific CRP acres are subject to privacy laws between each landowner and the FSA.

There are approximately 31 acres of school trust lands located within the Project Corridor (**Figure 1-4** and **Figure 5-3**). School trust land is managed by the NDDTL. These lands are dedicated to producing income for the schools and designated trust funds of North Dakota. Ninety-nine percent of North Dakota's school

trust lands are leased to farmers and ranchers (NDDTL 2020). School trust land is generally open to walk-in public use; however, lessees may restrict access if livestock are present.

Noxious Weeds

There are 13 state noxious weeds: absinth wormwood (*Artemisia absinthium*), Canada thistle (*Cirsium arvense*), dalmatian toadflax (*Linaria genistifolia*), diffuse knapweed (*Centaurea diffusa*), houndstongue (*Cynoglossum officinale*), leafy spurge (*Euphorbia esula*), musk thistle (*Carduus nutans*), palmer amaranth (*Amaranthus palmeri*), purple loosestrife (*Lythrum salicaria*), Russian knapweed (*Acroptilon repens*), Saltcedar (*Tamarix chinensis, T. parviflora, T. ramosissima*), spotted knapweed (*Centaurea maculosa*), yellow toadflax (*Linaria vulgaris*), and one additional noxious weed listed Mountrail County, common tansy (*Tanacetum vulgare*) (NDDA 2020).

5.5.2 Impacts/Mitigation

The Project will not result in a significant change in land use. No residences or farms will be displaced due to construction activities. Basin Electric will not place infrastructure or have any temporary impacts on any USFWS easements. PLOTS agreements are subject to change on an annual basis, and any changes to these agreements will be negotiated between the individual landowner and the NDGFD. Any land taken out of CRP will be negotiated between the individual landowner and the FSA. The Project crosses approximately two miles of school trust lands. Basin Electric has submitted an easement application to the NDDTL and expects the easement agreement to be finalized following Project approval from the Commission. Basin Electric will implement the following mitigation measures for the Project:

Land Use

- The movement of crews and equipment will be limited to Project Corridor and other areas that have been cleared for cultural, historical, and biological resources. The contractor will limit movement on the Project Corridor so as to minimize damage to rangeland, cropland, or property.

Agricultural Practices

- Where practical, construction activities will be scheduled during periods when agricultural activities will be minimally affected or the landowner will be compensated accordingly.
- Fences, gates, and similar improvements that are removed or damaged will be promptly repaired or replaced. New gates may be installed, if deemed appropriate.
- The ROW easement will be purchased through negotiations with each landowner affected by the Project and payment will be made of full value for crop damages or other property damage during construction or maintenance.
- When weather and ground conditions permit, all deep ruts that are hazardous to farming operations and to movement of equipment will be eliminated or compensation will be provided if the landowner desires. Such ruts will be leveled, filled, and graded, or otherwise eliminated in an approved manner. Ruts, scars, and compacted soils from construction activities in cropland or rangeland will be loosened and leveled by subsoiling, paraplowing, scarifying, harrowing, or disking, as appropriate. Damage to ditches, roads, and other features of the land will be corrected or payment will be made to the Mountrail County Road and Bridge department per their specific rules and parameters to complete this type of work. The land and other features will be restored as nearly as practicable to their original conditions.

Vegetation

- Where wooded areas cannot be avoided, the transmission line will be placed in areas with the lowest density of trees, whenever feasible, thereby reducing the number of trees that will require removal within the Project Corridor.

- All vegetative materials resulting from clearing operations will either be chipped on site, or removed and disposed of in a permitted facility.
- Existing native vegetation within the Project Corridor will be preserved whenever feasible.
- Surface disturbance areas will be reclaimed using native species, as approved by the NRCS, county extension agency, or other desired seed mix if required by landowners, and will be planted at the appropriate times in order to reestablish native vegetative cover and minimize the potential for invasion by non-native species.
- Wetland and riparian communities will be spanned by the transmission line, thereby avoiding impacts to these ecosystems. One wetland impact from an access route will be permitted under Nationwide Permit 12
- Erosion and sedimentation controls will be implemented to minimize indirect impacts to wetlands and riparian areas.
- If herbicides are used to remove woody species that become established in the Project Corridor and pose a hazard to the transmission line, they will be used in an appropriate manner.
- Mulch and seeds used for revegetation, erosion, and sediment control will be certified as weed-free.

Noxious Weeds

- If noxious weeds are observed in the surface disturbance areas, populations will be controlled with the application of herbicides, which will be applied by a certified herbicide applicator in accordance with label instructions and State and local County Weed Board regulations. Biological control methods (i.e., use of spurge beetles, etc.) also may be considered for weed control, in consultation with appropriate agencies.
- Herbicides will not be used near surface water.
- 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.
- The Project Corridor and other surface disturbance areas will be monitored annually for noxious weeds for a three-year period following construction and reclamation. Landowners will be consulted regarding all noxious weed control measures and issues.
- Herbicide applications will occur in late spring or early summer to eradicate or control noxious weeds before they mature.

5.6 Soils and Geologic Resources

5.6.1 Description of Resources

The Study Area is divided into two Class IV ecoregions which are more detailed ecoregions for state-level applications (Bryce et al. 1996). The two ecoregions are the Missouri Coteau Slope and River Breaks. The Missouri Coteau Slope has a simple drainage pattern and fewer wetland depressions than the Missouri Coteau. Due to the level to gently rolling topography, there is more cropland than on the Missouri Coteau. Cattle graze on the steeper land that occurs along drainages. The River Breaks form broken terraces and uplands that descend to the Missouri River. They have formed particularly in soft, easily erodible strata, such as Pierre shale.

There are approximately 85 active oil and gas wells within the Study Area (NDDMR 2020a) There are two active sand and/or gravel mines located within the Study Area (Anderson 2012 and Google Earth 2020). There is one abandoned coal mine and no active coal mines within the Study Area (ND GIS Hub 2020). Several landslide areas as indicted by the North Dakota Geological Survey landslide mapping program

are present within the Study Area within the White Earth River Valley, although none are present within the Project Corridor (**Figure 1-4** and **Figure 3-1**).

5.6.2 Impacts/Mitigation

The Project will not result in a significant change soil and geologic resources. All active oil and gas wells will be avoided. A geotechnical analyses will be performed and areas which are geologically unstable will be avoided and spanned as necessary. Basin Electric will implement the following mitigation measures for the Project:

- Excess subsoils and rock will be hauled off-site to an approved landfill.
- Erosion and sediment controls will be established prior to construction, then maintained and controlled through application of the Storm Water Pollution Prevention Plan (SWPPP).
- Sediment control measures (e.g., installation of silt fences) will be used, where appropriate, to prevent sediment from moving off-site and into waterbodies.
- 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, paraplowing, scarifying, harrowing, or disking, as appropriate.
- Temporary laydown areas will be located in previously disturbed areas and/or areas previously surveyed for cultural and biological resources.

5.7 Surface Water and Groundwater Resources

5.7.1 Description of Resources

The Project is located within the Prairie Pothole Region. Prairie potholes (*i.e.*, emergent wetlands, freshwater ponds) are scattered throughout the Study Area. Intermittent drainages associated with the White Earth River are also present in the Study Area.

Western EcoSystems Technology, Inc. (WEST) conducted wetland and waterbody mapping in support of the Project. Prior to field surveys, a desktop assessment was completed to identify wetland and waterbody areas within the Project Corridor (**Appendix D**). USFWS National Wetlands Inventory data and the U.S. Geological Survey National Hydrography Dataset (NHD) were used to identify potential surface waters within the Study Area (USFWS 2020a, USGS 2020) (**Figure 5-4**). The data were used as a precursor for field delineations. Field surveys were conducted to confirm desktop boundaries and to update wetland/upland vegetation breaks, slope, and hydrology indicators. A total of 124 wetlands were mapped through the desktop and field mapping efforts (**Figure 1-4**).

The White Earth River, Paulsen Creek, small drainages, and wetlands are found within the Study Area. Due to the Study Area's rural location, the Federal Emergency Management Agency (FEMA) has not developed flood rating maps for the area (USDHS, FEMA 2020). Aquifer present within the Study Area include the White Earth aquifer (NDSWC 2020).

5.7.2 Impacts/Mitigation

The Project will not result in a significant change surface water and groundwater resources. The Project will avoid direct, permanent impacts to all wetlands and waterbodies including those protected by USFWS easements, with the exception of one wetland impact from an access route that will be permitted under Nationwide Permit 12. Wetlands will be spanned, and no transmission structures will be placed in a wetland or waterbody. Basin Electric will implement the following mitigation measures for the Project:

- A pre-construction wetland and waterbody survey has been conducted to determine the location and spatial extent of wetlands and waterbodies within the Project Corridor (**Appendix D**). All features will be mapped using a Global Positioning System device to enable feature avoidance and site-specific structure placement. In localized areas where detailed wetland mapping will be required for appropriate structure placement to avoid wetland impacts, the U.S. Army Corps of Engineers–approved three-parameter approach will be used to delineate wetland boundaries.
- A 100-foot buffer will be established adjacent to wetlands and streams, where practicable, to prevent or minimize impacts to those ecosystems. Construction vehicles and equipment will not traverse through wetlands and riparian areas, thereby avoiding direct impacts to these sensitive areas.
- Transmission line structures will be sited so that streams and drainages are spanned and remain undisturbed. Construction and maintenance access also will avoid these areas, with the exception of one wetland impact from an access route that will be permitted under Nationwide Permit 12. If additional crossing of a drainage way is required for access, the appropriate permits will be obtained.
- Staging areas and refueling areas will not be located near surface waterbodies.
- Areas that need to be cleared during construction will be revegetated with an approved native seed mix as soon as technically feasible to minimize soil erosion and sediment runoff.
- A SPCC plan will be developed prior to the start of construction to prevent the potential for spills of hazardous substances into streams and drainages, and potential contamination of groundwater. The plan will include a procedure for storage of hazardous materials and refueling of construction equipment outside of riparian zones, spill containment and recovery plan, and notification and activation protocols.
- Refueling of construction vehicles will occur at commercial fueling facilities and staging areas, if on-site fuel storage is needed for refueling.
- A SWPPP will be developed and implemented prior to initial construction activities. The SWPPP will include an analysis of materials that will be utilized and site activities that could potentially impact storm water and the associated mitigation measures to minimize that potential. 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.

5.8 Wildlife and Rare and Unique Natural Resources

5.8.1 Description of Resources

The USFWS administers the Endangered Species Act (ESA), which mandates protection of species federally listed as threatened and endangered and their associated habitats. 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. Critical habitat for these 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. Candidate species receive no statutory protection from the USFWS unless they are formally listed. North Dakota does not have a state threatened and endangered species list; however, it recognizes those federally listed under the ESA.

The USFWS Information for Planning and Conservation (IPaC) tool indicated that seven threatened and endangered species could potentially occur within the Study Area (**Table 5-3**) (USFWS 2020b).

Table 5-3 Threatened and Endangered Species

Common Name	Scientific Name	Status	Critical Habitat
Northern long-eared bat	*Myotis septentrionalis*	Threatened	No designated critical habitat.
Interior least tern[1]	*Sterna antillarum*	Endangered	No designated critical habitat.
Piping plover	*Charadrius melodus*	Threatened	The Project is outside the designated critical habitat.
Red knot	*Calidris canutus rufa*	Threatened	No designated critical habitat.
Whooping crane	*Grus americana*	Endangered	The Project is outside the designated critical habitat.
Pallid sturgeon	*Scaphirhynchus albus*	Endangered	No designated critical habitat.
Dakota skipper	*Hesperia dacotae*	Threatened	The Project is outside the designated critical habitat.

Source: US Fish and Wildlife Service (USFWS) Information for Planning and Conservation (USFWS 2020b)
[1]On January 13, 2021, the USFWS published a final rule to remove the inland population of the Interior least tern (*Sternula antillarum*) from the list of endangered and threatened species (USFWS 2021). This rule is effective February 12, 2021.

Bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) are protected under the Bald and Golden Eagle Protection Act (BGEPA). The BGEPA protects bald and golden eagles throughout their range in the United States. Although it does not designate critical habitat, BGEPA protects individual eagles and nests from disturbance.

Additionally, the North Dakota Natural Heritage biological conservation database reviewed the Project to determine if any current or historical plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the Project. Based on this review, there is no known rare species or significant ecological communities documented within or immediately adjacent to the Project (**Appendix F**).

Northern Long-Eared Bat

The northern long-eared bat (NLEB) is listed as threatened under an interim Section 4(d) rule (USFWS 2016). The USFWS determined that white-nose syndrome (WNS) is the primary threat to NLEB and regulating other sources of mortality or harm, such as from general habitat loss, will not effectively conserve this species. Additionally, in 2016 the USFWS determined designating critical habitat for NLEB was not prudent (USFWS 2016).

The 4(d) rule limits the prohibition of take to counties affected by WNS and an additional 150-mile buffer around these counties (the WNS Zone). Incidental take is prohibited within known NLEB hibernacula, and if tree removal occurs at an occupied hibernaculum during any time of year or maternal roost site from June 1 through July 31 (USFWS 2016). The Study Area is located within the WNS Zone and is not within a county with WNS infected hibernacula or bats (USFWS 2019a).

The NLEB roosts in trees during the spring, summer, and fall. The species prefers large, contiguous tracks of upland forested habitat during the summer residency period. Natural roosting habitats in the Study Area are limited to individual trees and wind breaks. NLEB do not undertake long-distance seasonal migrations between summer and winter ranges but do undertake shorter distance movements between summer roosts and winter hibernacula. These seasonal movements are generally between 35 miles and 55 miles, but may be substantially longer in some areas, perhaps as great as 168 miles. Information on habitat use during migration is limited, but individuals in transit are likely to use foraging habitats at least part of the time. NLEB spend winter hibernating in caves and mines. There are no known wintering hibernacula within North Dakota, the closest likely being in the Black Hills of South Dakota or in caves in Minnesota.

The Study Area and all of North Dakota is within the NLEB range (USFWS 2019a). The NLEB has been identified in a few forested habitats in North Dakota including the Turtle Mountains, and the riparian corridors of the Little Missouri River and Missouri River. The closest primary range of the NLEB is along

the Missouri River located approximately eight miles southwest of the southern end of the Study Area (Dyke *et al*. 2015).

Interior least Tern

On October 23, 2019 the USFWS proposed to delist the Interior least tern from the ESA due to recovery (USFWS 2019b, 2019c). USFWS states that Interior least tern populations are healthy, stable and increasing, and the species no longer faces the threat of extinction. When the Interior least tern was listed under the ESA in 1985, there were fewer than 2,000 birds and only a few dozen nesting sites scattered across the United States. Today there are more than 18,000 Interior least terns at more than 480 nesting sites in 18 states.

In North Dakota the Interior least tern's key areas and primary range are along the Yellowstone River, Missouri River, Lake Sakakawea, and Lake Oahe (Dyke *et al*. 2015). The Missouri River is located approximately eight miles southwest of the southern end of the Study Area.

Piping Plover

Critical habitat has been federally designated for the piping plover in North Dakota mainly along the shores of the Missouri River and wildlife refuge areas. No designated critical habitat is located within the Study Area. The closest designated critical habitat is approximately three miles northeast of the Study Area at Cottonwood Lake in Mountrail County located (USFWS 2013b) (**Figure 3-1**).

Red Knot

There are no stopover sites consistently used by red knots in North Dakota. The entire state of North Dakota is within the possible range of the red knot (Dyke *et al*. 2015).

Whooping Crane

A 200-mile wide migration corridor has been delineated for this population that contains 95 percent of all verified sightings. Spring migration occurs primarily in April and May whereas fall migration occurs primarily in October and November (Urbanek and Lewis 2015). Stopover habitat during migration includes a variety of croplands with roosting occurring in shallow, freshwater inland wetlands. The Project is located within the USFWS-defined 75% occurrence frequency band of the whooping crane migration corridor (USFWS 2010). This entire corridor area includes a swath of the central U.S. and extends from southcentral North Dakota along the Missouri River to northwest North Dakota through Mountrail County.

Pallid Sturgeon

No tributaries to the Missouri River where pallid sturgeon are known to occur are within the Study Area.

Dakota Skipper

WEST conducted a field habitat assessment to identify areas of potential Dakota skipper habitat within the Project Corridor (**Appendix E**). As detailed in the 2018 Dakota Skipper (Hesperia dacotae) North Dakota Survey Protocol (USFWS 2018), suitable habitat for the species typically consists of native prairies containing native grasses and diverse forbs. Areas of cropland, non-native haylands, pastures, shrublands, forests, or other grasslands dominated by non-native species do not likely qualify as suitable reproductive habitat.

The Project occurs within Mountrail County, North Dakota, a county known to contain Dakota skipper populations; however, there are no publicly available records of Dakota skipper occurring within the Study Area. The closest designated critical habitat to the Project Corridor is approximately 13 miles southwest.

Bald Eagle

Bald eagles may occur in North Dakota as breeders, winter residents, migrants or year-round residents. In North Dakota the key nesting areas and primary range are the Missouri River system including Lake Sakakawea, the Heart River, Cannonball River, Sheyenne River, Red River, Souris River, and the Devils Lake basin. Bald eagles can also nest in areas not considered traditional nesting habitat such as small stands of large cottonwood trees completely surrounded by cropland or grassland. The Study Area is located within the secondary range of the key nesting areas (Dyke *et al*. 2015).

During the non-breeding season bald eagles will concentrate near large bodies of water where the water remains unfrozen and will roost up to 20 miles from foraging sites, depending on abundance of prey (Buehler 2000, USFWS 2013b). The largest large body of water within the primary range nearest the Study Area is the Missouri River which is located approximately eight miles southwest of the southern end of the Study Area.

Golden Eagle

Golden eagles may occur in North Dakota as breeders, winter residents, migrants or year-round residents (NDGFD 2015). Golden eagles are most commonly associated with open and semi-open habitats such as shrublands, grasslands, woodland-brushlands, and coniferous forests as well as in farmland and riparian habitats. In North Dakota the golden eagle primary range for nest site selection is along the badlands and Lake Sakakawea breaks. The Study Area is located within the secondary range for nest site selection. Golden eagles in North Dakota nest mainly west of the Missouri River (Dyke *et al*. 2015).

5.8.2 Impacts/Mitigation

In order to minimize impacts to threatened and endangered species, Basin Electric will implement mitigation measures in addition to the list below if requested by USFWS. No irreversible damage to rare or unique animal or plant species is anticipated. Individual species are discussed below. Basin Electric will implement the following mitigation measures for the Project:

- Prior to surface disturbance activities during the migratory bird (not including raptors) breeding season (April 15 through July 15), a qualified biologist will survey suitable habitat within the ROW (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 are located, or other evidence of nesting is observed, appropriate protection measures, including establishment of buffer areas and constraint periods, will be implemented 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 applicable state and federal agencies, as appropriate.
- If construction is to occur during the breeding season for raptors (February 1 through August 15), prior to construction activities, raptor breeding surveys will be conducted by a qualified biologist through areas of suitable nesting habitat to identify any active nest sites within 0.5 mile (1.0 mile for bald eagles) from the Project Corridor. If applicable, appropriate protection measures, including seasonal constraints and establishment of buffer areas will be implemented at active nest sites until the young have fledged and have dispersed from the nest area. These measures will be implemented on a site-specific and species-specific basis, in coordination with applicable state and federal agencies.
- Standard measures to minimize avian collision risk with overhead transmission lines, as outlined in the Avian Power Line Interaction Committee (APLIC) *Reducing Avian Collisions with Power Lines* (APLIC 2012), will be examined and appropriate measures will be developed in coordination with applicable state and federal agencies.
- Adequate raptor proofing designs, as described in the APLIC *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006), will be implemented on the structures in coordination with applicable state and federal agencies.

- 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 livestock and wildlife entering the holes and for public safety.

Northern Long-Eared Bat

There is little suitable roosting or foraging habitat in the Study Area and no known hibernacula in North Dakota for the NLEB. Occurrence of the species in North Dakota is expected to be uncommon or rare (USFWS 2013a). Due to the limited amount of forested habitat within the Study Area, the NLEB's likelihood of occurrence within the Study Area is low.

Interior least Tern

With the absence of gravelly or sandy beaches or sandbars within the Study Area, it is unlikely that the Project will affect the Interior least tern. However, it is possible, but unlikely, that Interior least terns may occur within the Study Area.

Piping Plover

With the absence of preferred nesting habitat which is limited to sandy or gravelly beaches and sandbars or alkaline wetlands, it is unlikely that the Project will affect the piping plover. However, it is possible, but unlikely, that piping plovers may occur within the Study Area.

Red Knot

The species is known to occur in Mountrail County; however, there are no stopover sites consistently used by red knots in North Dakota. With the absence of preferred stopover habitat, it is unlikely that the Project will affect the red knot. However, it is possible, but unlikely, that red knots may occur within the Study Area.

Whooping Crane

Power lines represent a documented collision mortality risk for whooping cranes (Stehn and Wassenich 2008). The Project will avoid direct impacts to and span all wetlands, with the exception of one wetland impact from an access route that will be permitted under Nationwide Permit 12. Standard measures to minimize avian collision risk with overhead transmission lines, as outlined in the APLIC *Reducing Avian Collisions with Power Lines* (APLIC 2012), will be examined and appropriate measures will be developed in coordination with applicable state and federal agencies.

Pallid Sturgeon

Because the pallid sturgeon is only found within the Missouri River and its larger tributaries, pallid sturgeon will not occur within or around the Study Area.

Dakota Skipper

No areas of potential Dakota skipper reproductive habitat (native grassland including diverse forbs and bunchgrasses) or foraging habitat (native grassland including a diversity of forbs, but does not include bunchgrasses) were mapped for the Project; however approximately 946 acres of dispersal habitat (grassland habitat lacking adequate forbs or bunchgrasses or previously disturbed grasslands) were mapped (**Appendix E**). It is unlikely that the Project will affect the Dakota skipper. However, it is possible, but unlikely, that Dakota skipper may occur within the Study Area.

Bald and Golden Eagle

The transmission line will be outfitted with bird flight diverters following APLIC guidelines, which will also increase visibility of the lines for large raptors such as eagles, thereby reducing collision risk with the transmission lines. Therefore, the impacts of the Project on eagle are likely to be low.

6.0 PUBLIC AND AGENCY COORDINATION

Basin Electric and its representatives contacted key local, state, and federal agencies per Section 69-06-01-05 of the NDAC for assistance in identifying concerns or issues within the Study Area. Basin Electric has maintained close coordination with landowner stakeholders throughout the process via in-person meetings, mailers, and phone calls. Each landowner received a pamphlet that detailed specific information about the Project such as Project permitting, design and construction, construction, maintenance, and landowner relations (**Appendix G**). Coordination with Mountrail County is described in Section 3.6. Basin Electric will continue to meet with various state and county officials as the Project moves forward for all necessary local permits. Public and agency correspondence as of January 2021 are included in **Appendix F**. **Table 6-1** summarizes the responses received from agencies to date.

Table 6-1 Summary of Agency Comments

Agency	Comment Date	Comment Summary	Section Addressed
State Historical Society of North Dakota (SHSND)	Aug. 31, 2020	The SHSND reviewed the Study Area and concurred with the need for a Class III Cultural Resource Inventory. ND SHPO reference number 20-5998 is to be included with any further correspondence for the Project.	5.4, 7.0, Appendix B
North Dakota Department of Environmental Quality (NDDEQ)	Sept. 2, 2020	The NDDEQ believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. Disturbing one or more acres requires a permit to discharge stormwater runoff. Care should be taken to avoid spills. All solid waste materials must be managed and transported in accordance with the state's solid and hazardous waste rules.	4.13, 5.2, 5.3, 5.5, 5.7, 7.0
North Dakota Parks and Recreation Department	Sept. 4, 2020	The North Dakota Natural Heritage biological conservation database reviewed the Project to determine if any current or historical plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the Project. Based on this review, there is no known rare species or significant ecological communities documented within or immediately adjacent to the Project.	NA
North Dakota State Water Commission (NDSWC)	Sept. 10, 2020	Initial review indicates the Project does not require a conditional or temporary permit for water appropriation. However, if surface water or groundwater will be diverted for construction of the Project, a water permit will be required per NDCC 61-04-02. If a NDSWC observation well must be removed, the Project was requested to contact the Water Appropriations Division. There may be floodplains identified and/or mapped at the Project location.	5.7, 7.0

Agency	Comment Date	Comment Summary	Section Addressed
U.S. Army Corps of Engineers (USACE)	Sept. 11, 2020	In the event the Project requires approval from the USACE and cannot be authorized by Nationwide Permit(s), a Standard or Individual Permit will be required. If this Project requires a Section 404 permit, please complete and submit the enclosed Department of the Army permit application (ENG Form 4345) to the USACE.	5.7, 7.0
North Dakota Department of Transportation (NDDOT)	Sept. 24, 2020	This Project should have no adverse effect on the NDDOT highways. If any work needs to be done on highway right of way, appropriate permits and risk management documents will need to be obtained from the NDDOT District Engineer.	7.0
North Dakota Department of Trust Lands (NDDTL)	Aug. 24, 2020	Basin Electric has submitted the easement application and has been working with the NDDTL on route alignment modifications. The NDDTL expects the easement agreement to be finalized once the Project Route is final, which is typically after Project approval from the Commission.	1.5, 1.6, 7.0, Figure 1-4, Figure 5-3
U.S. Fish and Wildlife Service (USFWS)	October 29, 2020	Section 7 of the Endangered Species Act of 1977 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. The USFWS recommends use of the Information for Planning and Consultation database. While not listed as threatened or endangered, eagles and migratory birds have protections under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. As part of the National Wildlife Refuge System, the USFWS administers fee title Refuge and Waterfowl Production Areas, as well as wetland and grassland easements, throughout North Dakota.	5.5, 5.8, 5.9, Figure 1-4, Figure 3-1

7.0 POTENTIAL PERMITS/APPROVALS

Table 7-1 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 7-1 Potential Permits and Approvals Required

Agency	Type of Approval	Status*	Need
Federal			
United States Army Corps of Engineers	Nationwide Permit 12	3	Required for one wetland impact from access route.
	Individual Section 404 Permit	N/A	Wetland impact will be below threshold for individual permit.
	Section 10 permit	N/A	Project does not cross navigable waters.
U.S. Environmental Protection Agency	Spill Prevention, Control, and Countermeasure Plan	3	Required if more than 1,320 gallons of oil storage is located on-site.
U.S. Fish and Wildlife Service (USFWS)	Special Use Permit	N/A	All Project infrastructure is sited outside of USWFS easements.
State of North Dakota			
North Dakota Public Service Commission	Certificate of Site Compatibility and Route Permit Transmission Facility	2	Required for construction of transmission facility over 115-kV.
State Historical Society of North Dakota (SHSND)	Concurrence with effect determinations	2	An amendment to the Class III cultural resources inventory will be submitted to SHSND for review when complete.
North Dakota Department of Environmental Quality	National Pollutant Discharge Elimination System Permit: General Construction Storm Water	3	Required for disturbance of over one acre of land and a stormwater pollution prevention plan must be prepared.
	401 Water Quality Certification	N/A	Required for filling in jurisdictional waters of United States.
North Dakota Highway Patrol	Oversize/Overweight Permit	3	Required to transport oversize loads on state maintained roads.
North Dakota Department of Transportation	Road Approach/Access Permit	3	Required for construction of access roads from state highways.
	Utility Permit/Risk Management Documents	3	Required for utility crossings on state highway rights-of-way.
North Dakota State Water Commission	Drainage Permit	N/A	The Project will not drain a pond, slough, lake or sheetwater, or any series thereof, that has a watershed area (*i.e.*, drainage area) of 80 acres or more.
	Conditional or Temporary Permit for water appropriation	N/A	No water appropriation required.
	Water Permit	N/A	Required if drilling a well. Not required for the Project.

Agency	Type of Approval	Status*	Need
North Dakota Department of Trust Lands (NDDTL)	Rights-of-Way Easement	2	Required for transmission lines on NDDTL.
County/Townships			
Mountrail County Commission	Conditional Use Permit	3	Required for all new utilities in the county.
	County Road and Crossing Permit	3	Required to install a conduit across a county road.
	Road Use Agreement	3	Required for road use.
Alger Township	Township Agreement	1, 3	Overhead crossing permit approved. Temporary or permanent approach permits will be applied for if needed
Debing Township	Township Agreement	3	Overhead crossing permit will be applied for prior to construction. Temporary or permanent approach permits will be applied for if needed
Manitou Township	Township Agreement	1, 3	Overhead crossing permit approved, Temporary or permanent approach permits will be applied for if needed
Sorkness Township	Township Agreement	1, 3	Overhead crossing permit approved, Temporary or permanent approach permits will be applied for if needed
White Earth Township	Township Agreement	1, 3	Overhead crossing permit approved, Temporary or permanent approach permits will be applied for if needed

*Status Explanation:
1 Completed and approved
2 Applied and/or decision pending
3 Will apply for prior to construction as applicable

8.0 QUALIFICATIONS OF CONTRIBUTORS

Table 8-1 Qualifications of Contributors

Name	Responsibilities	Education and Experience
Basin Electric Power Cooperative		
Bobby Nasset	Project Manager	B.S. Civil Engineering Registered Professional Engineer 15 Years of Experience
Kevin Solie	Environmental/Permitting	M.S. Geology B.S. Geology B.S. Geological Engineering Registered Professional Engineer 29 Years of Experience
Shane Vasbinder	Project Engineer	B.S. Civil Engineering Registered Professional Engineer 15 Years of Experience
Mike Murray	Right-of-Way	A.A. Business Administration B.S. Management SR/WA (Senior ROW designation) 26 Years of Experience
Shauna Laber	Right-of-Way	B.S. Economics B.S. Political Science SR/WA (Senior ROW designation) 15 Years of Experience
Jason Brekke	GIS Analyst	B.S. Geography 18 Years of Experience
AECOM		
Jennifer Bell	Project Manager and Application Lead	B.S. Environmental Studies M.S. Urban & Regional Planning 14 Years of Experience
Dirk Churchill	Application Preparation	B.S. Natural Resources Management 10 Years of Experience
Steve Ensley	GIS and Data Analyst	B.S. Environmental Conservation 15 Years of Experience
Lindsey Churchill	Application Reviewer	PhD Natural Resources Management M.S. Natural Resources Management B.S. Biology and Mathematics 13 Years of Experience
Metcalf Archaeological Consultants, Inc.		
Ed Stine	Cultural Resources Class III Inventory	B.A. Anthropology B.A. Visual Arts Master of Fine Arts in Ceramics 34 Years of Experience
Western EcoSystems Technology, Inc.		
Clayton Derby	Dakota Skipper Habitat Assessment; Wetland Mapping	B.S. Biology M.S. Zoology and Physiology 26 Years of Experience

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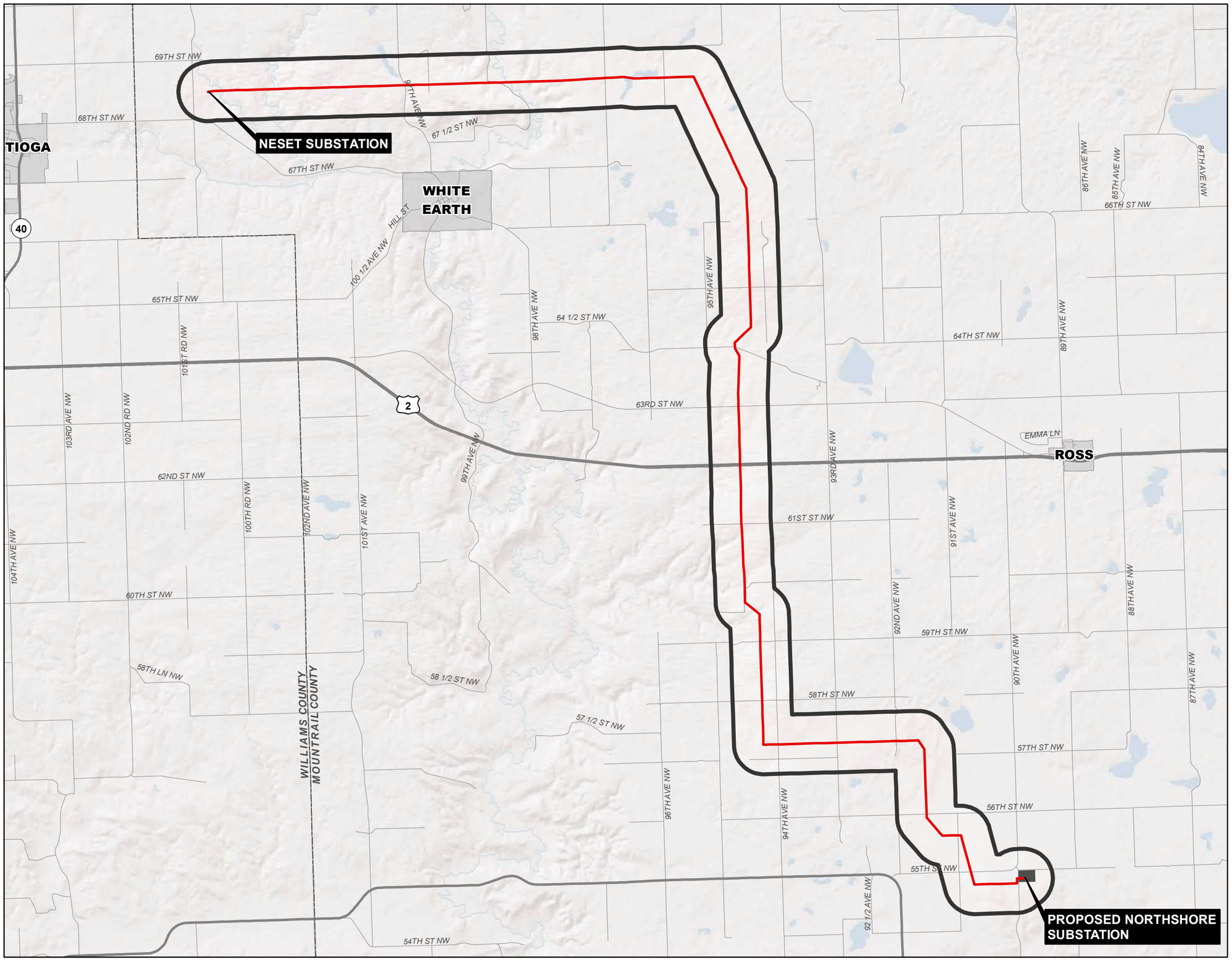
10.0 ACRONYMS AND ABBREVIATIONS

APLIC	Avian Power Line Interaction Committee
Basin Electric	Basin Electric Power Cooperative
BGEPA	Bald and Golden Eagle Protection Act
Certificate	Certificate of Corridor Compatibility
Commission	North Dakota Public Service Commission
CRP	Conservation Reserve Program
CUP	Conditional Use Permit
DPA Study	Delivery Point Network Study DPA-2018-August 918
EMF	electromagnetic fields
EMR	electromagnetic radiation
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FSA	Farm Service Agency
ft^2	square feet
GIS	geographic information systems
ICBM	Intercontinental ballistic missile
IPaC	Information for Planning and Conservation
kHz	kilohertz
kV	kilovolt
Metcalf	Metcalf Archaeological Consultants, Inc.
MHz	megahertz
MVA	megavolt ampere
MWEC	Mountrail-Williams Electric Cooperative
NASS	National Agricultural Statistics Service
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
NDDA	North Dakota Department of Agriculture
NDDEQ	North Dakota Department of Environmental Quality
NDDMR	North Dakota Department of Mineral Resources
NDDOT	North Dakota Department of Transportation
NDDTL	North Dakota Department of Trust Lands
NDGFD	North Dakota Game and Fish Department
NDSWC	North Dakota State Water Commission
NESC	National Electrical Safety Code
NIEHS	National Institute of Environmental Health Sciences
NLCD	National Land Cover Database
NLEB	northern long-eared bat
NRCS	Natural Resources Conservation Service
NTC	Notification to Construct
OPGW	Optical Ground Wire
OSHA	Occupation Safety and Health Administration
PLOTS	Private Land Open to Sportsmen
Project	Neset to Northshore 230-kV Transmission Line
Route Permit	Transmission Facility Route Permit

ROW	right-of-way
RUS	Rural Utilities Service
SCADA	Supervisory Control and Data Acquisition
SHSND	State Historical Society of North Dakota
SPP	Southwest Power Pool Inc.
SWPPP	Storm Water Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDHS	U.S. Department of Homeland Security
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WEST	Western EcoSystems Technology, Inc.
WNS	white nose syndrome
yd^3	cubic yards

Figures



Legend

- County Road
- State/Federal Highway
- County Boundary
- City Boundary

Site Plan

- Neset to Northshore Transmission Line Route
- Neset to Northshore Transmission Line Study Area

0 1 2 Miles

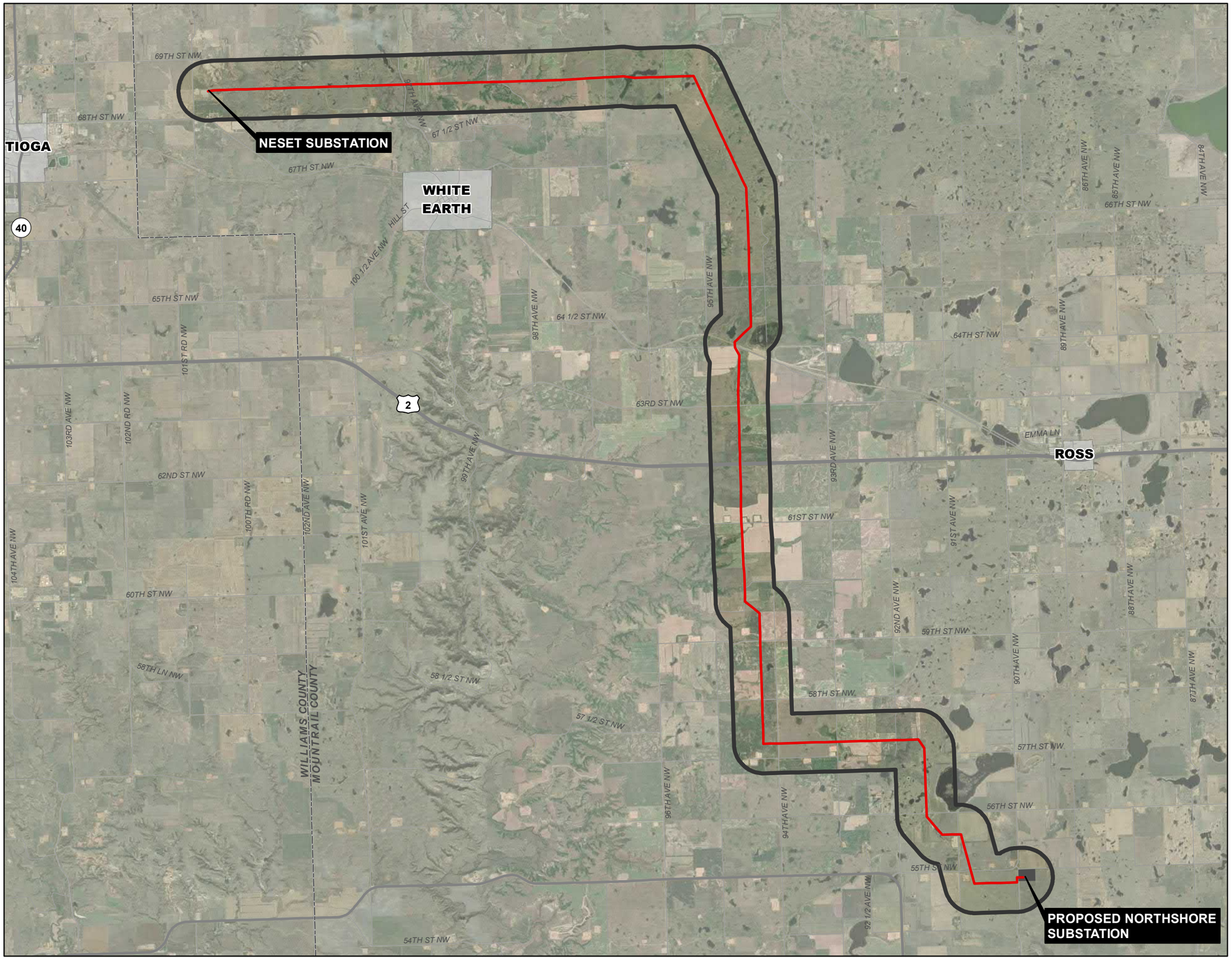
N W E S

Figure 1-1

Project Location Map (Street View)

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

AECOM



Legend

- County Road
- State/Federal Highway
- County Boundary
- City Boundary

Site Plan

- Neset to Northshore Transmission Line Route
- Neset to Northshore Transmission Line Study Area

0 1 2 Miles

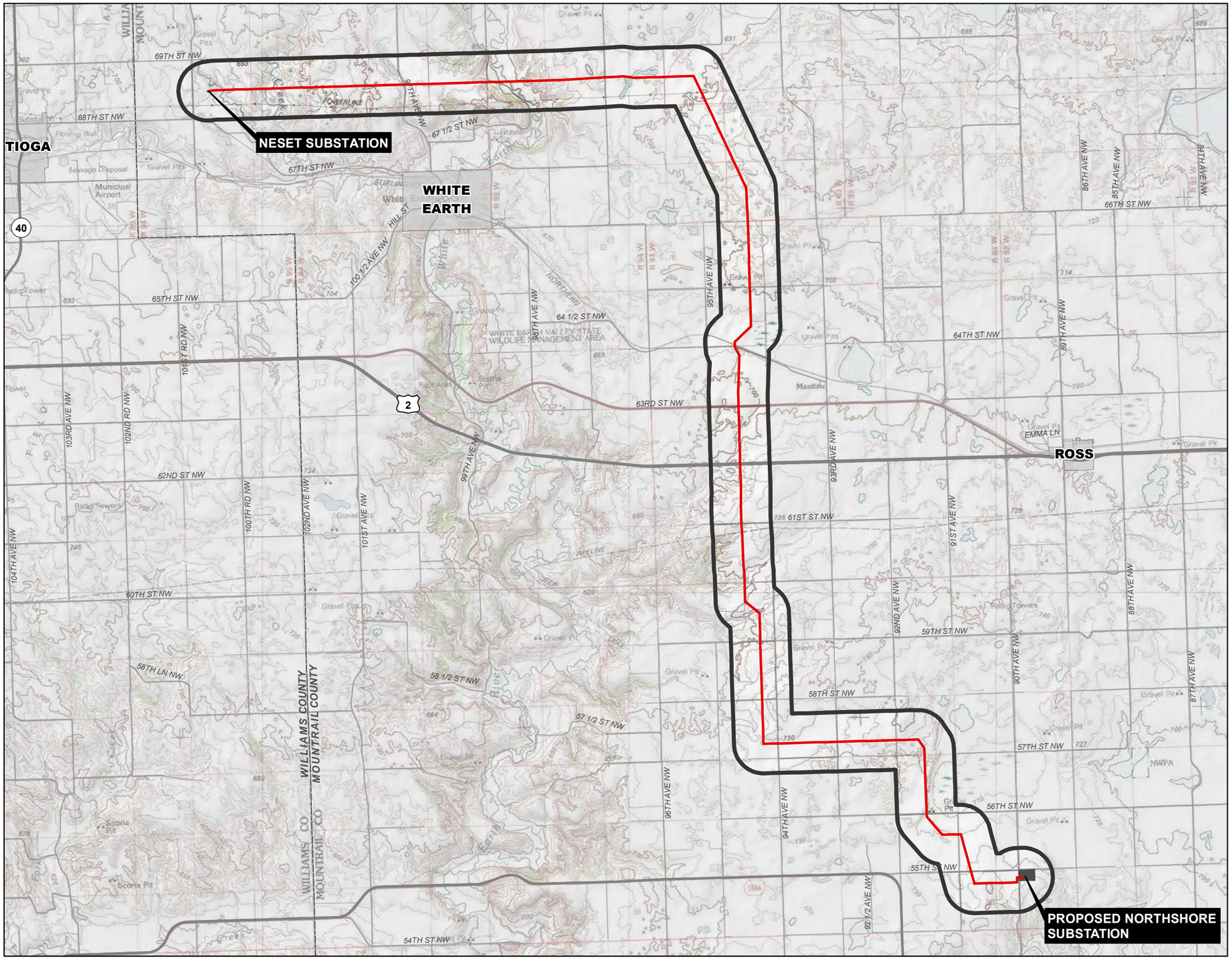
N W E S

Figure 1-2

Project Location Map (Aerial)

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

AECOM



Legend

- County Road
- State/Federal Highway
- County Boundary
- City Boundary

Site Plan

- Neset to Northshore Transmission Line Route
- Neset to Northshore Transmission Line Study Area

0 1 2 Miles

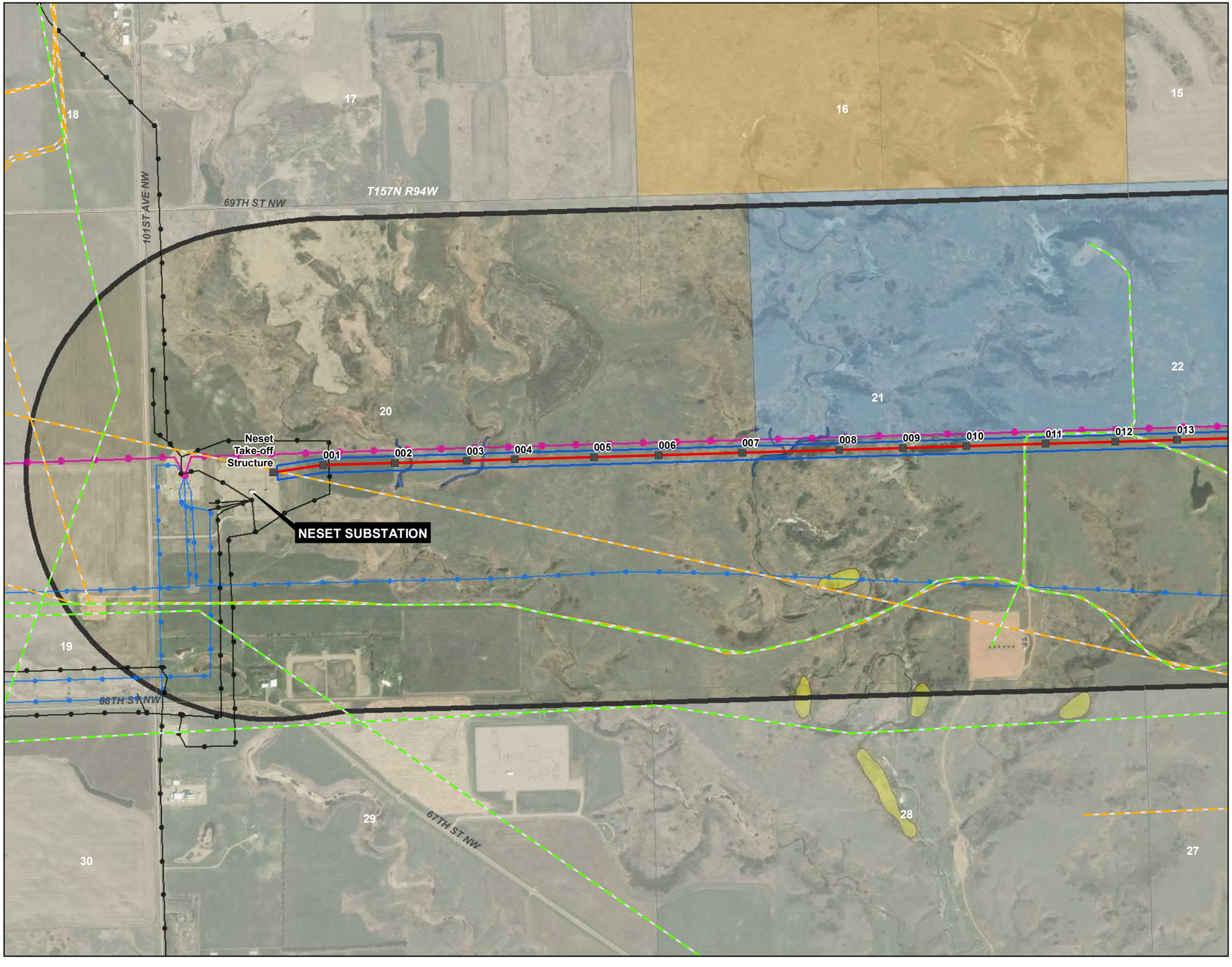
N W E S

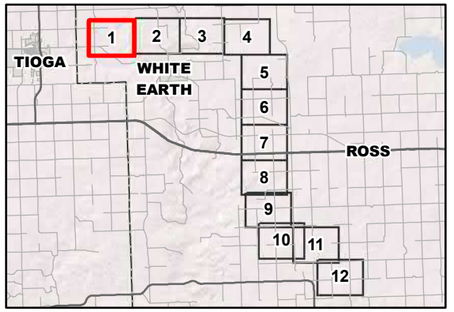
Figure 1-3

Project Location Map (Topographic)

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

AECOM





Legend

- County Road
- State/Federal Highway
- Railroad
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

- Planned Transmission Structure Location
- Neset to Northshore Transmission Line Route
- Neset to Northshore Transmission Line Study Area
- Neset to Northshore Transmission Line 125-foot Project Corridor
- Neset to Northshore Transmission Line 150-foot Project Corridor
- Pulling Lane
- Northshore Substation Property

Surface Water Resources

- Mapped Wetland or Waterbody

Utilities

- Natural Gas Pipeline
- Crude Oil Pipeline
- 230-kV Transmission Line
- 115-kV Transmission Line
- Other Transmission Line

Avoidance Areas

- Landslide Deposit

Public Lands, Easements, & Agreements

- School Trust Land
- Private Land Open to Sportsmen
- Parcel Boundary for USFWS Wetland Easements*

**Individual wetland basin shapefiles are not available. No structures will be located within USFWS easements.*

0 500 1,000 Feet

N W E S

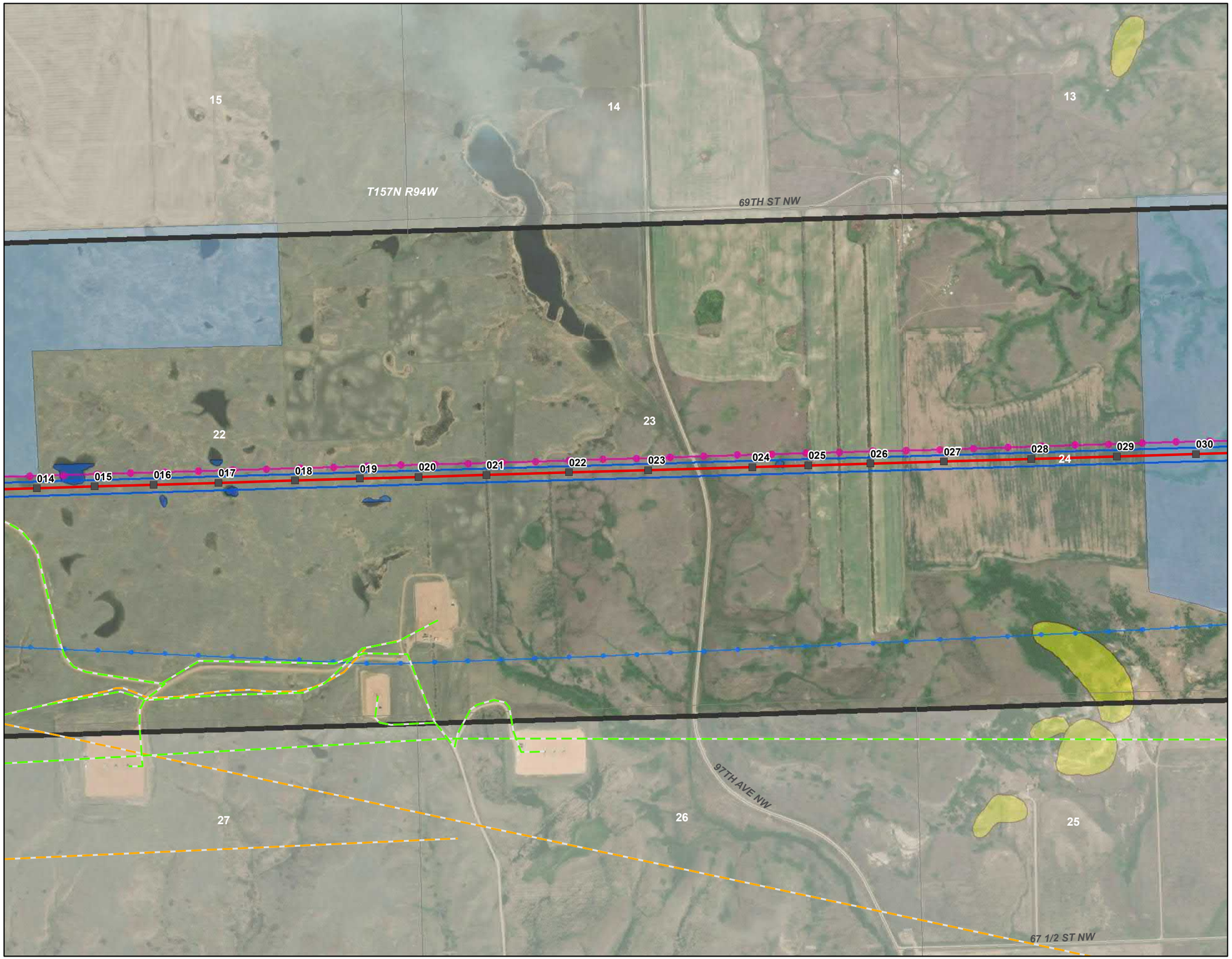
Figure 1-4

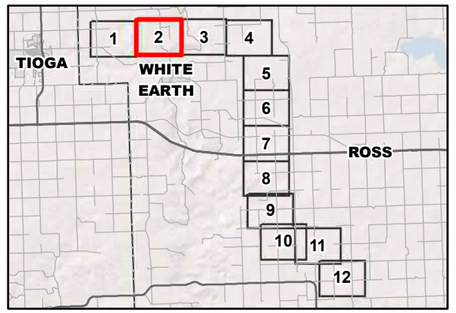
Site Plan Detail

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

Map 1 of 12

AECOM





Legend

- County Road
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- Railroad
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- PLSS Section Boundary

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0 500 1,000 Feet

N W E S

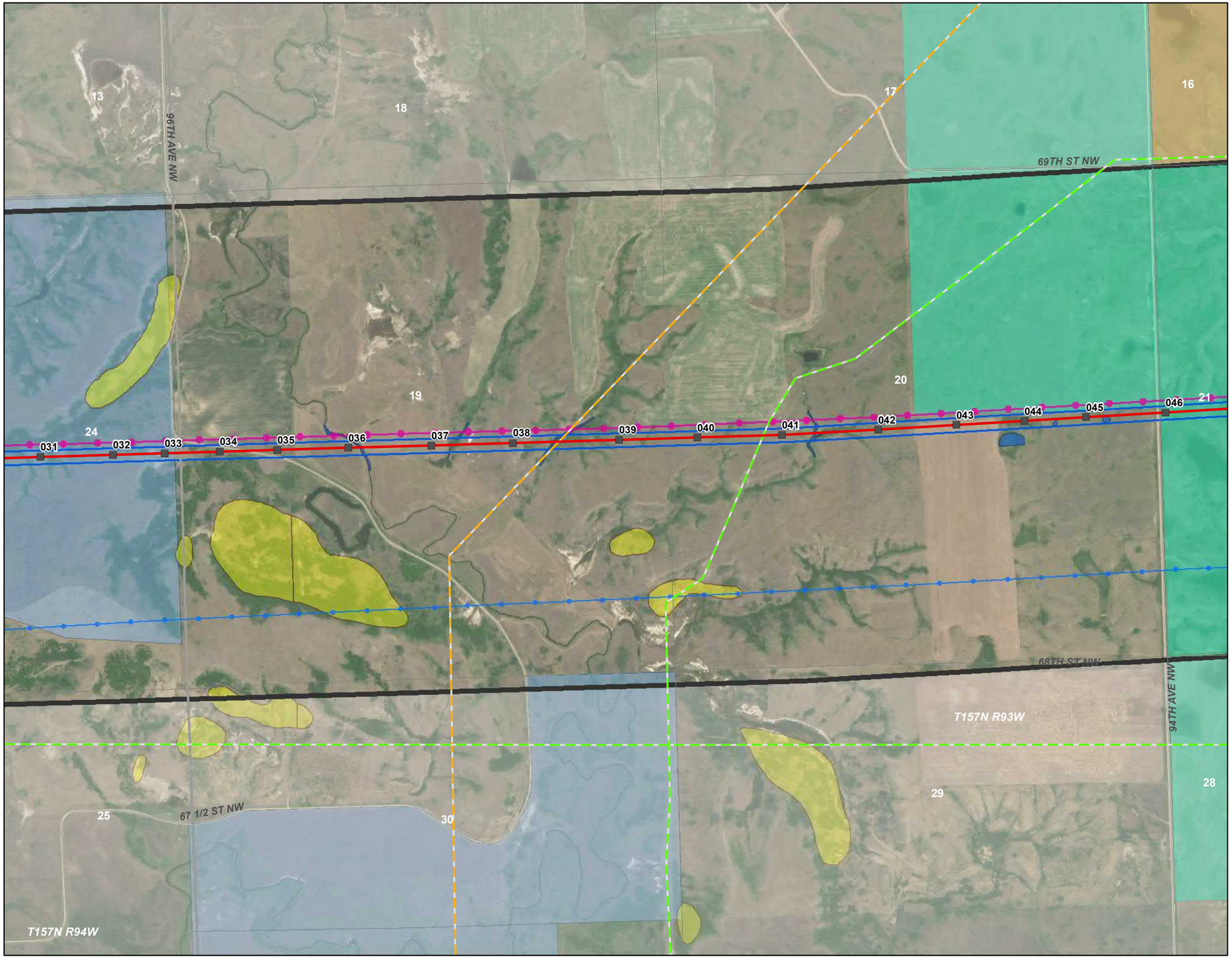
Figure 1-4

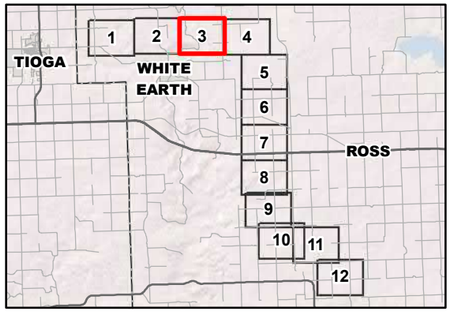
Site Plan Detail

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

Map 2 of 12

AECOM





Legend

- County Road
- State/Federal Highway
- Railroad
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

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0 500 1,000 Feet

N W E S

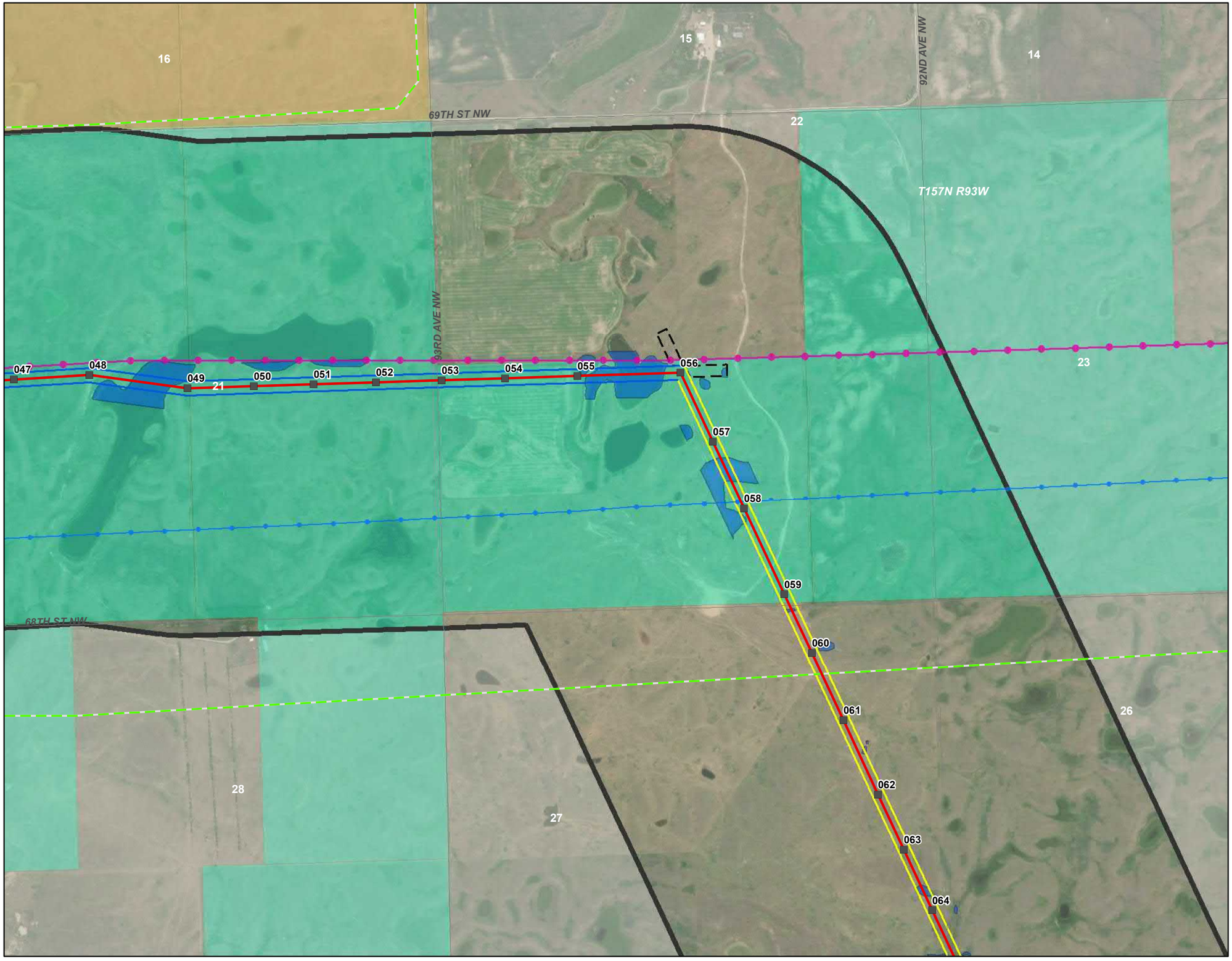
Figure 1-4

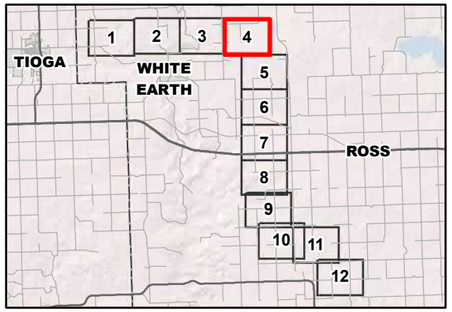
Site Plan Detail

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

Map 3 of 12

AECOM





Legend

- County Road
- State/Federal Highway
- Railroad
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

- Planned Transmission Structure Location
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0 500 1,000 Feet

N W E S

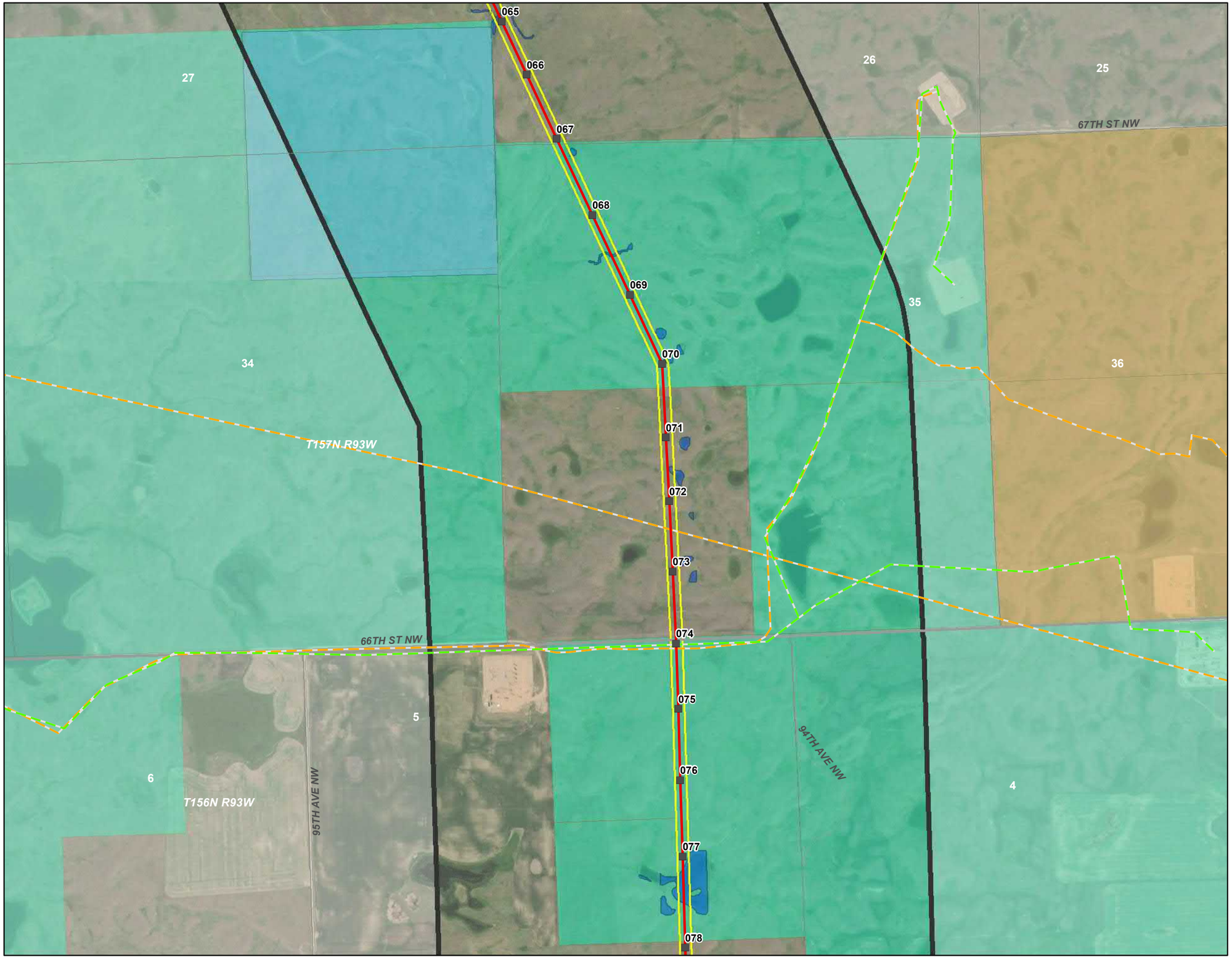
Figure 1-4

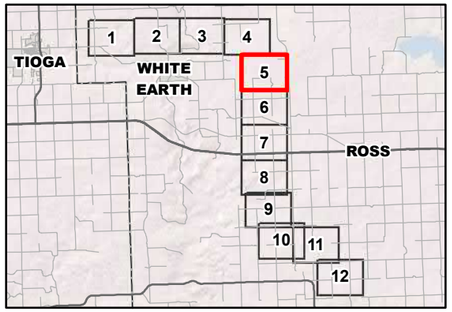
Site Plan Detail

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

Map 4 of 12

AECOM





Legend

- County Road
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- PLSS Section Boundary

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0 500 1,000 Feet

N W E S

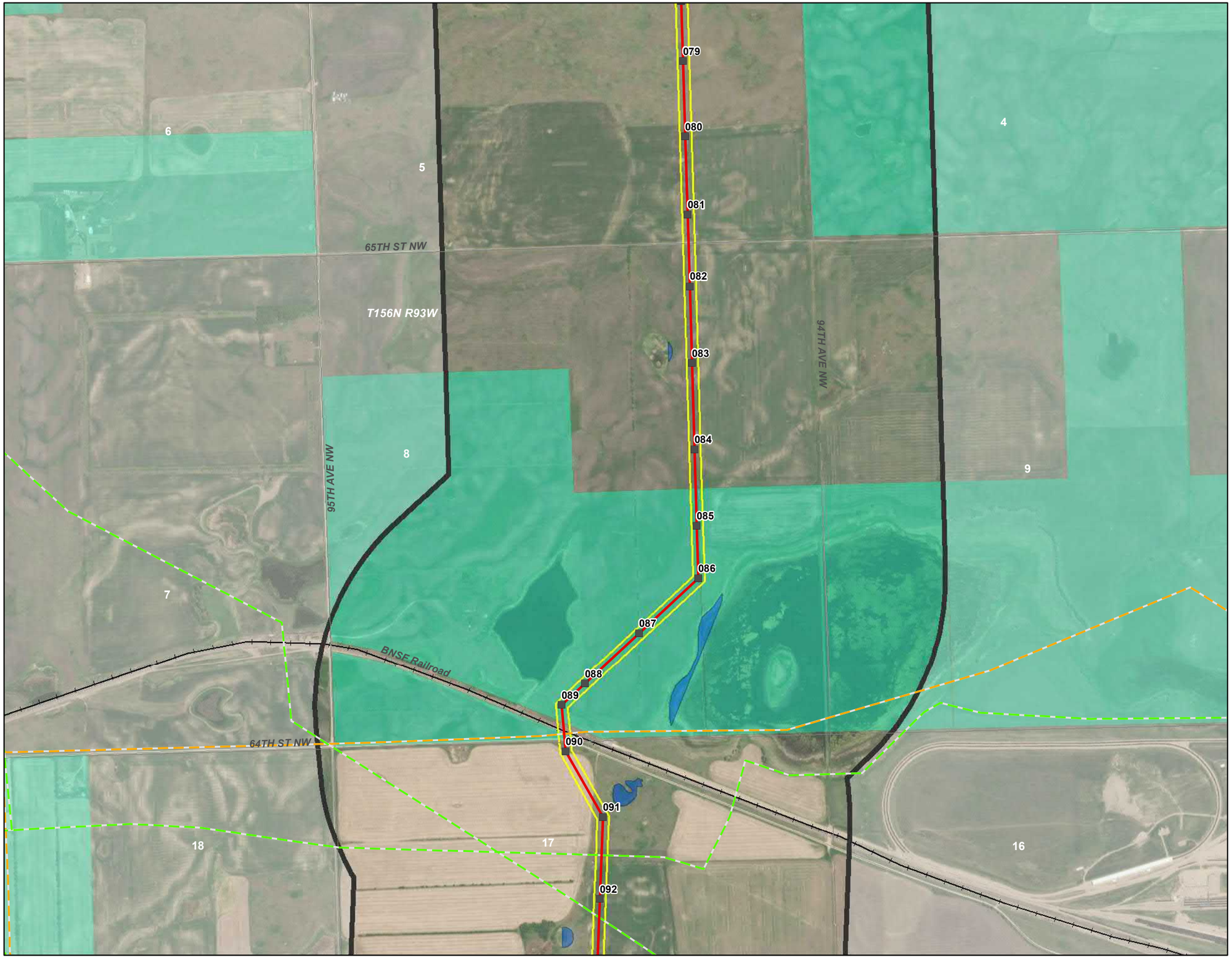
Figure 1-4

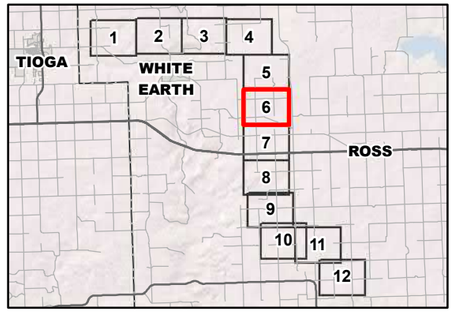
Site Plan Detail

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

Map 5 of 12

AECOM





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- PLSS Section Boundary

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0 500 1,000 Feet

N W E S

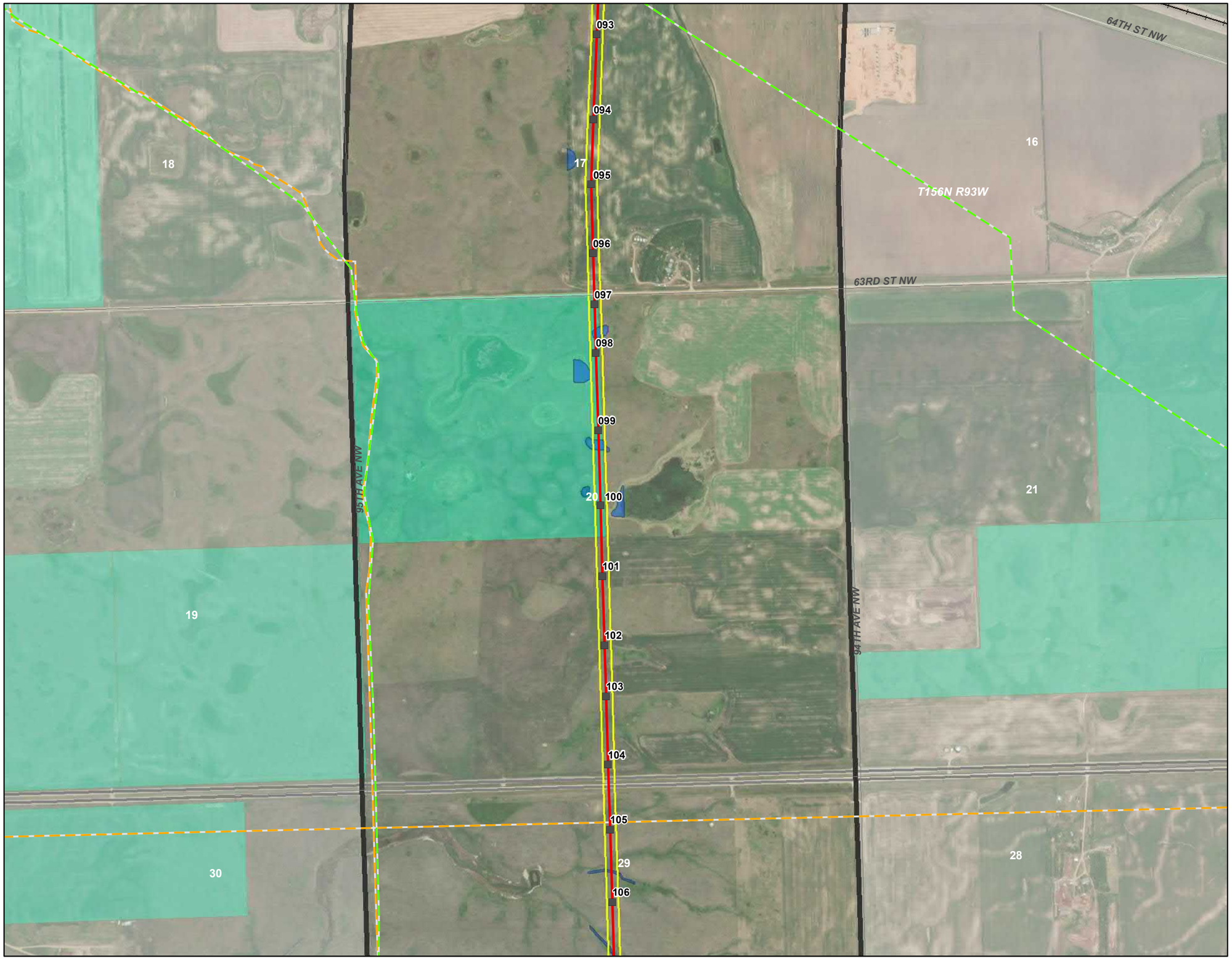
Figure 1-4

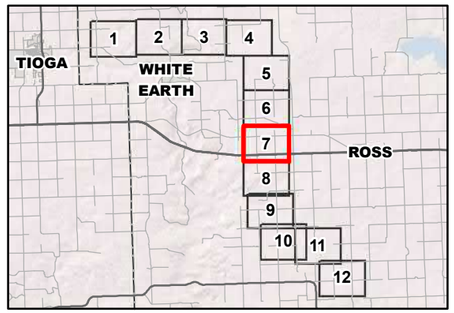
Site Plan Detail

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

Map 6 of 12

AECOM





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0 500 1,000 Feet

N W E S

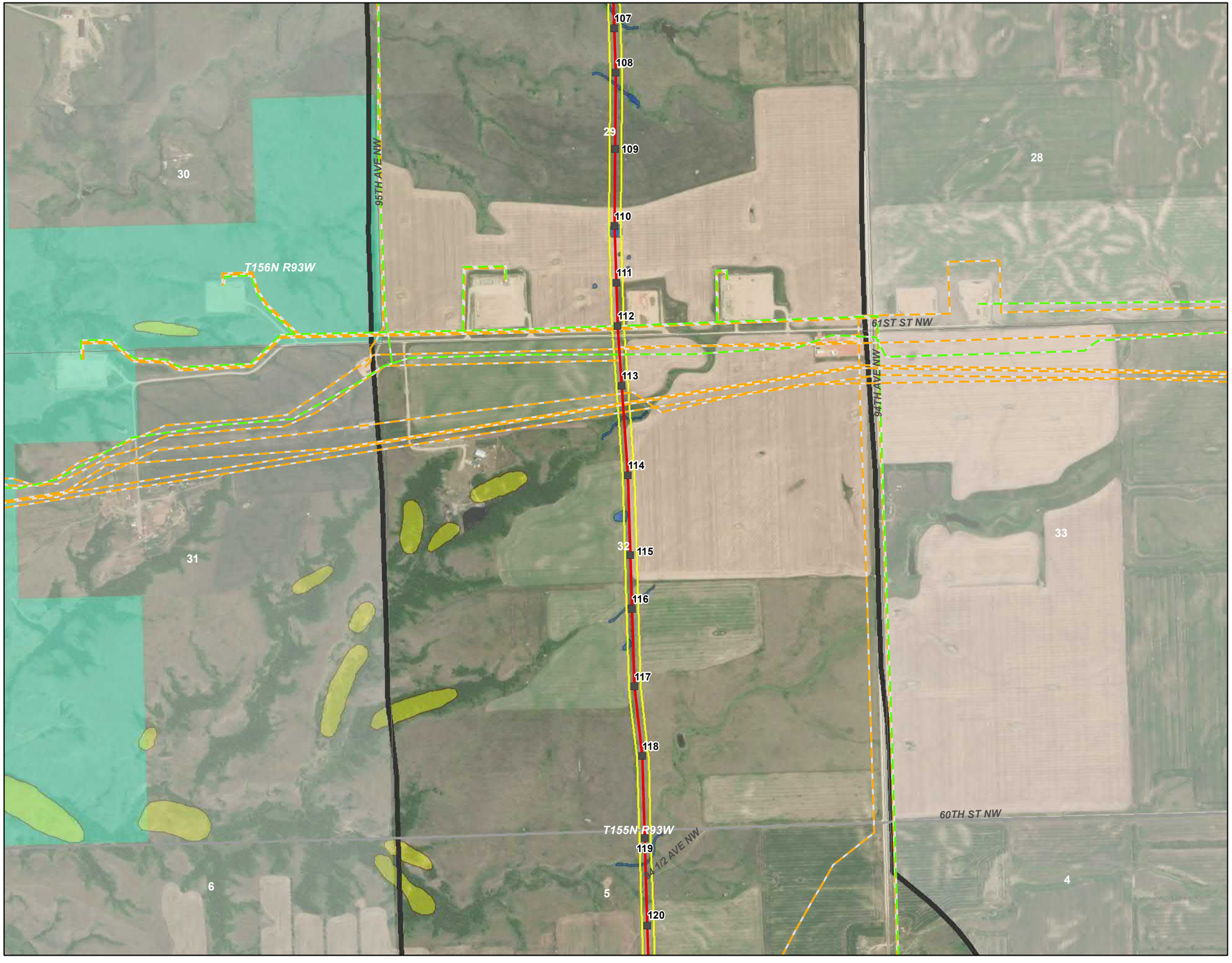
Figure 1-4

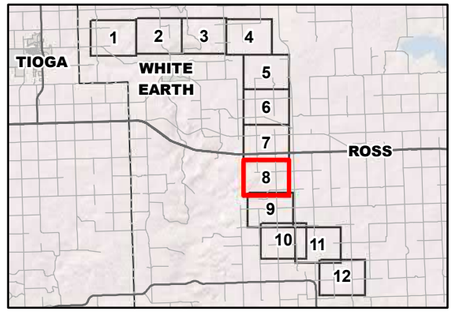
Site Plan Detail

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

Map 7 of 12

AECOM





Legend

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0 500 1,000 Feet

N W E S

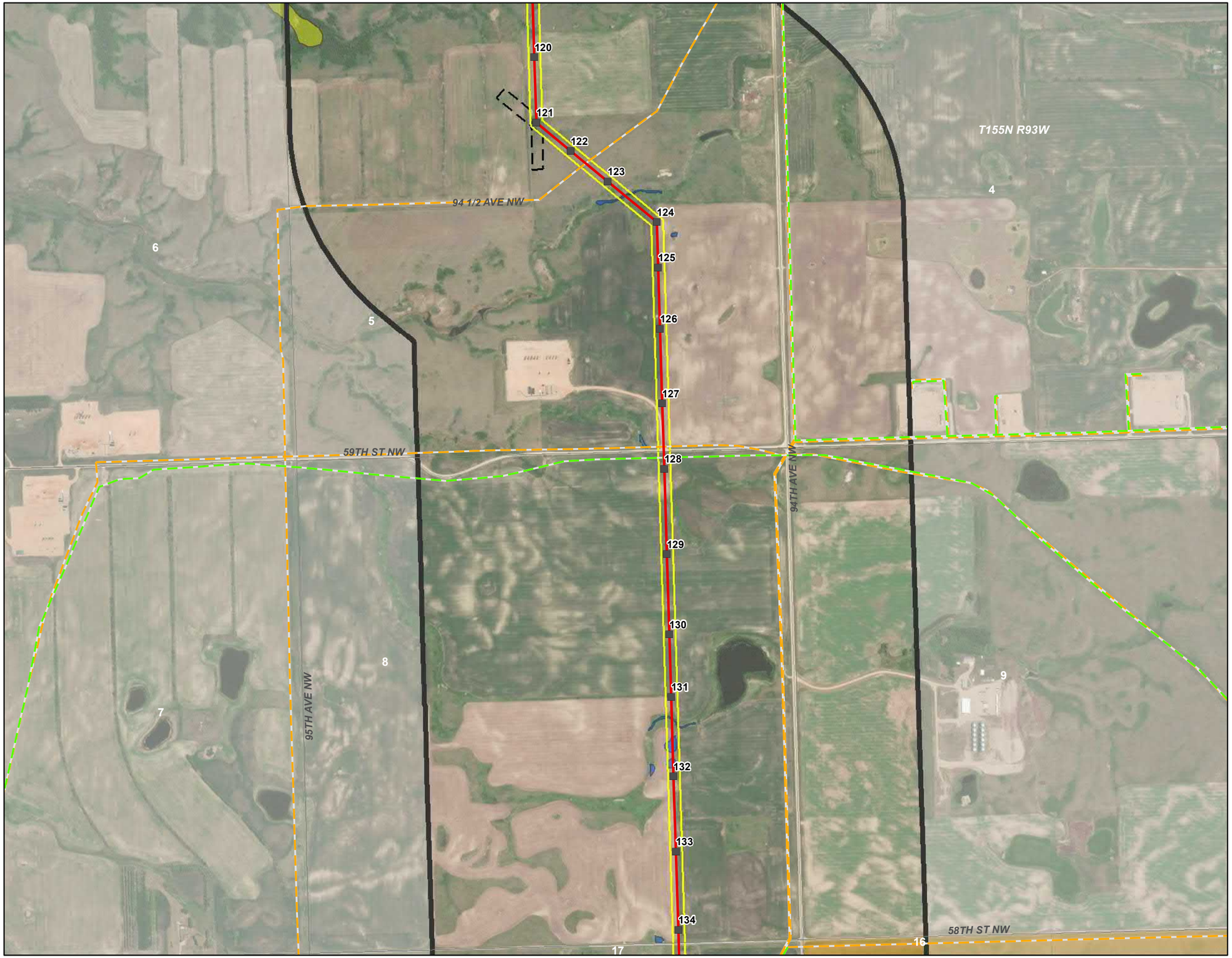
Figure 1-4

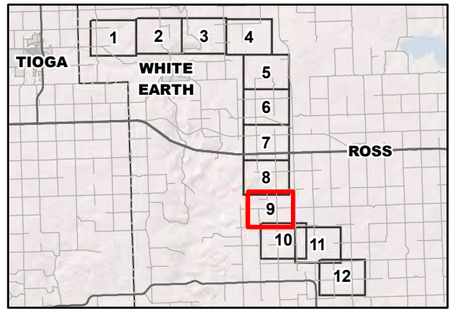
Site Plan Detail

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

Map 8 of 12

AECOM





Legend

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0 500 1,000 Feet

N W E S

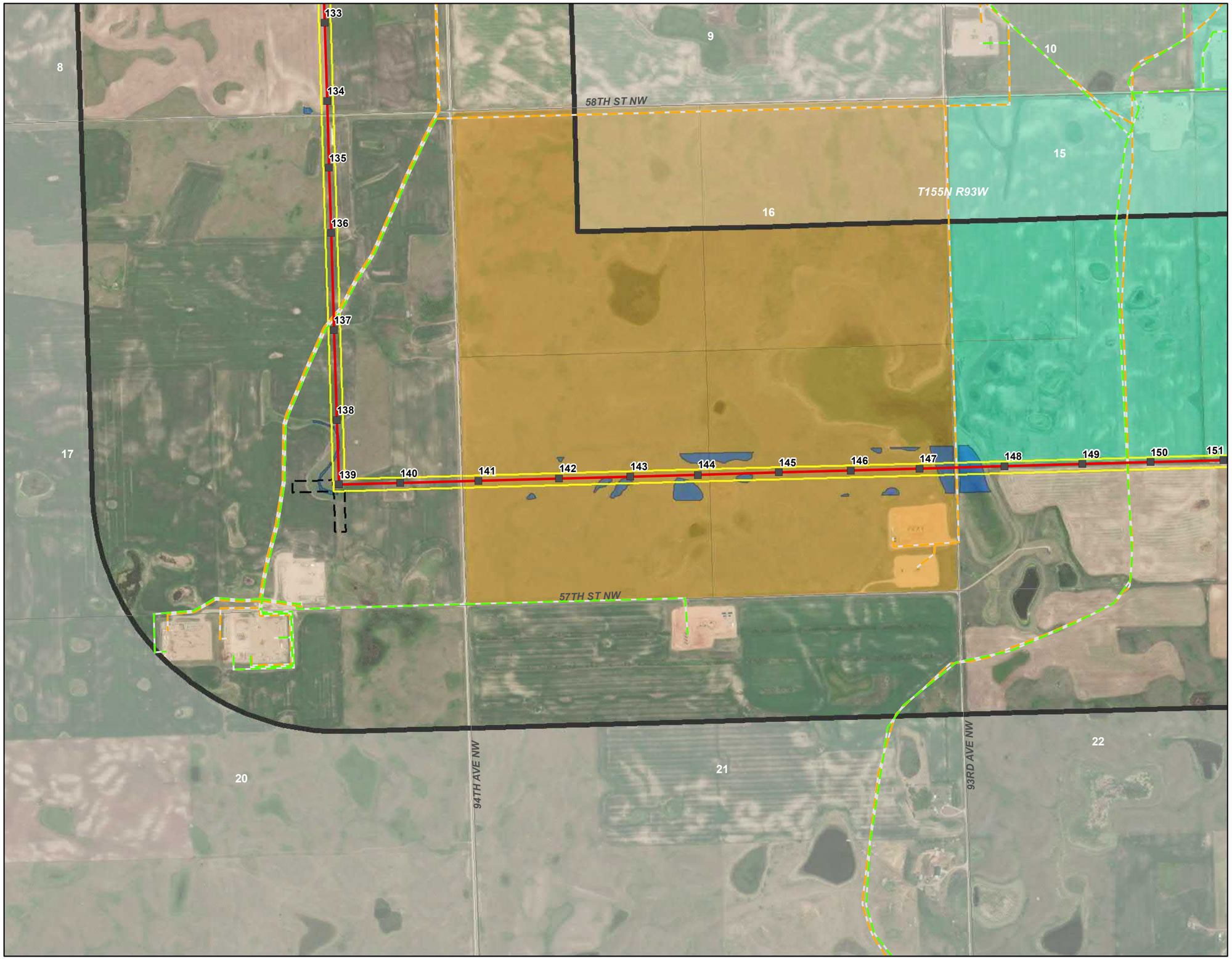
Figure 1-4

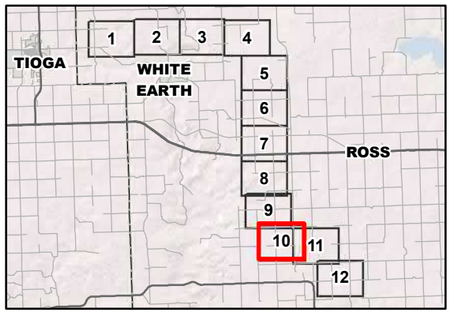
Site Plan Detail

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

Map 9 of 12

AECOM





Legend

- County Road
- State/Federal Highway
- Railroad
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

- Planned Transmission Structure Location
- Neset to Northshore Transmission Line Route
- Neset to Northshore Transmission Line Study Area
- Neset to Northshore Transmission Line 125-foot Project Corridor
- Neset to Northshore Transmission Line 150-foot Project Corridor
- Pulling Lane
- Northshore Substation Property

Surface Water Resources

- Mapped Wetland or Waterbody

Utilities

- Natural Gas Pipeline
- Crude Oil Pipeline
- 230-kV Transmission Line
- 115-kV Transmission Line
- Other Transmission Line

Avoidance Areas

- Landslide Deposit

Public Lands, Easements, & Agreements

- School Trust Land
- Private Land Open to Sportsmen
- Parcel Boundary for USFWS Wetland Easements*

**Individual wetland basin shapefiles are not available. No structures will be located within USFWS easements.*

0 500 1,000 Feet

N W E S

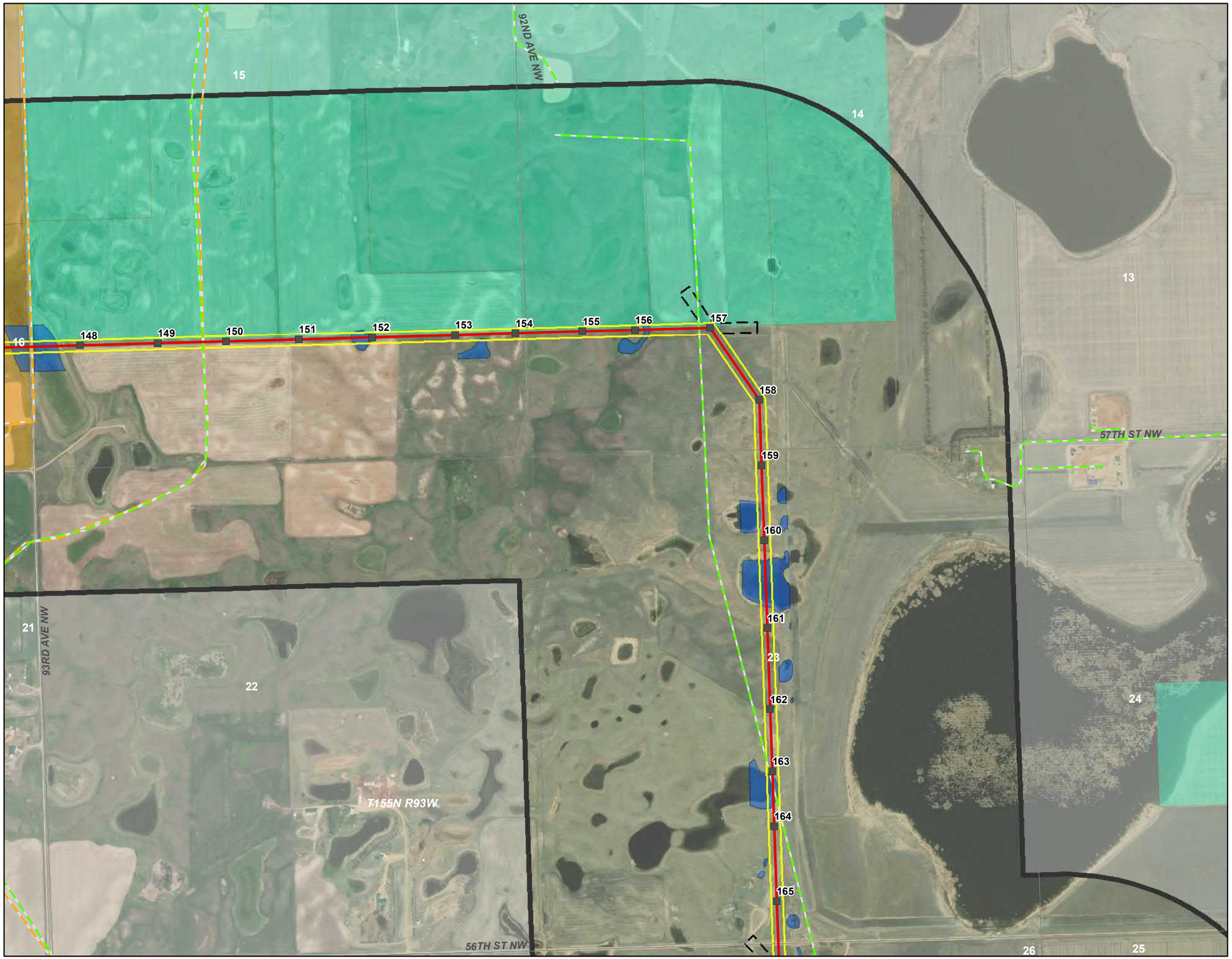
Figure 1-4

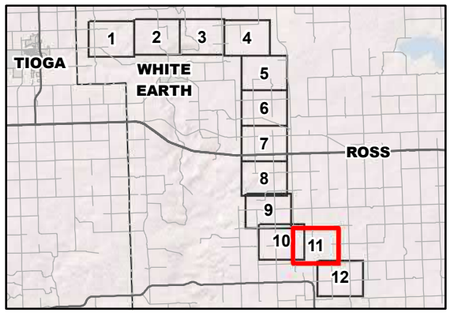
Site Plan Detail

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

Map 10 of 12

AECOM





Legend

- County Road
- State/Federal Highway
- Railroad
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

- Planned Transmission Structure Location
- Neset to Northshore Transmission Line Route
- Neset to Northshore Transmission Line Study Area
- Neset to Northshore Transmission Line 125-foot Project Corridor
- Neset to Northshore Transmission Line 150-foot Project Corridor
- Pulling Lane
- Northshore Substation Property

Surface Water Resources

- Mapped Wetland or Waterbody

Utilities

- Natural Gas Pipeline
- Crude Oil Pipeline
- 230-kV Transmission Line
- 115-kV Transmission Line
- Other Transmission Line

Avoidance Areas

- Landslide Deposit

Public Lands, Easements, & Agreements

- School Trust Land
- Private Land Open to Sportsmen
- Parcel Boundary for USFWS Wetland Easements*

**Individual wetland basin shapefiles are not available. No structures will be located within USFWS easements.*

0 500 1,000 Feet

N W E S

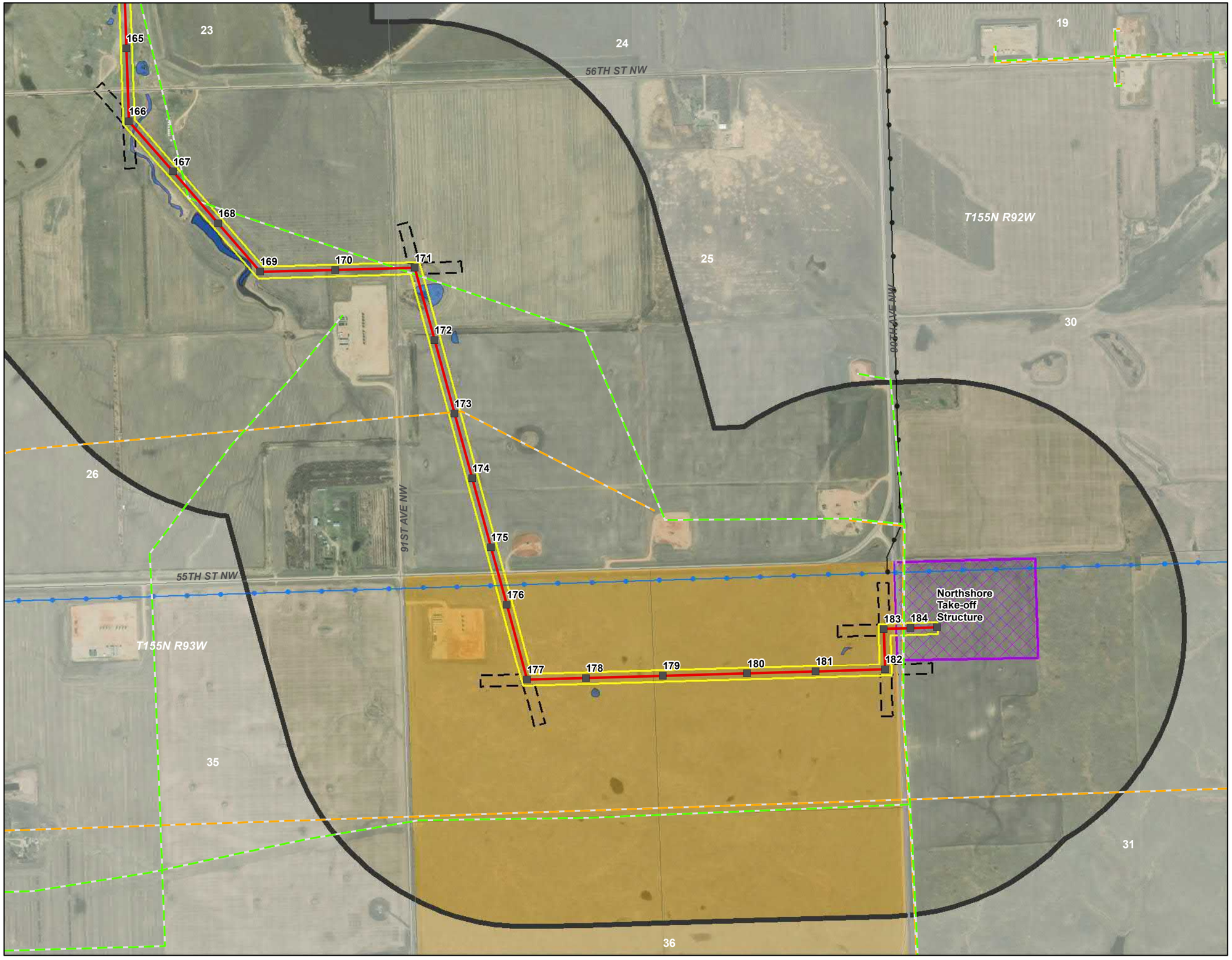
Figure 1-4

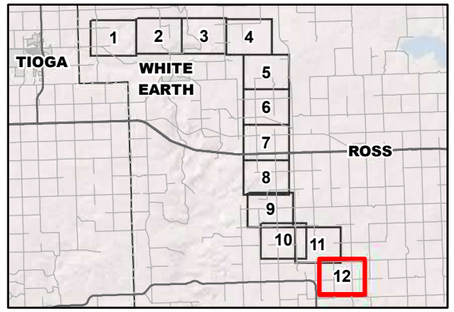
Site Plan Detail

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

Map 11 of 12

AECOM





Legend

- County Road
- State/Federal Highway
- Railroad
- PLSS Township Boundary
- PLSS Section Boundary

Site Plan

- Planned Transmission Structure Location
- Neset to Northshore Transmission Line Route
- Neset to Northshore Transmission Line Study Area
- Neset to Northshore Transmission Line 125-foot Project Corridor
- Neset to Northshore Transmission Line 150-foot Project Corridor
- Pulling Lane
- Northshore Substation Property

Surface Water Resources

- Mapped Wetland or Waterbody

Utilities

- Natural Gas Pipeline
- Crude Oil Pipeline
- 230-kV Transmission Line
- 115-kV Transmission Line
- Other Transmission Line

Avoidance Areas

- Landslide Deposit

Public Lands, Easements, & Agreements

- School Trust Land
- Private Land Open to Sportsmen
- Parcel Boundary for USFWS Wetland Easements*

**Individual wetland basin shapefiles are not available. No structures will be located within USFWS easements.*

0 500 1,000 Feet

N W E S

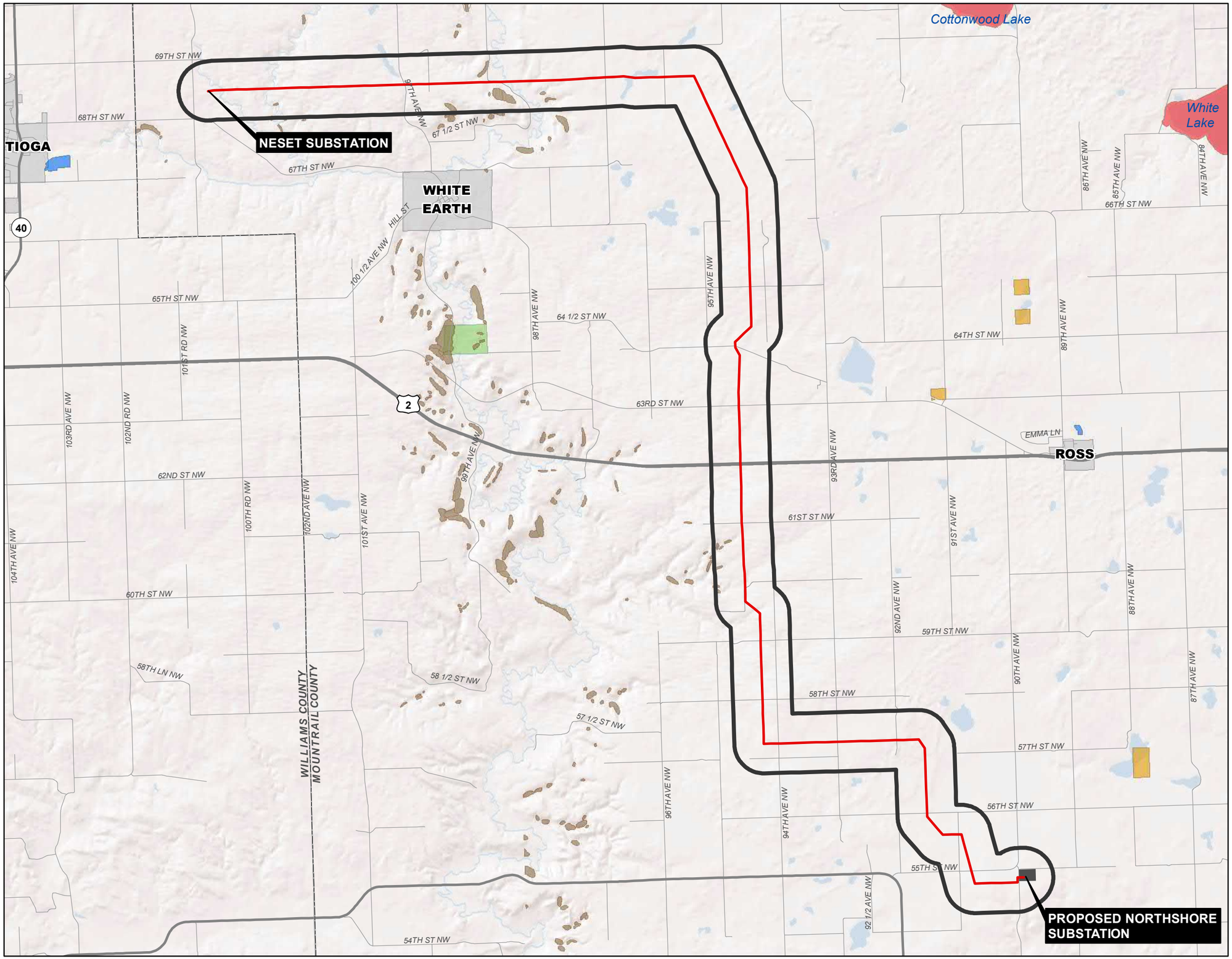
Figure 1-4

Site Plan Detail

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

Map 12 of 12

AECOM



Legend

- County Road
- State/Federal Highway
- County Boundary
- City Boundary

Site Plan

- Neset to Northshore Transmission Line Route
- Neset to Northshore Transmission Line Study Area

Exclusion Areas

- Piping Plover Critical Habitat

Avoidance Areas

- Wildlife Management Area
- Waterfowl Production Area
- Municipal Water Supply
- Landslide Deposit

No structures will be located within USFWS easements.

Known archaeological sites are not depicted due to confidentiality.

ICBM and/or launch control facilities are not depicted.

0 1 2 Miles

N W E S

Figure 3-1
Exclusion and Avoidance Areas Map

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

AECOM

Figure 4-1 Single-Pole Structure Diagram

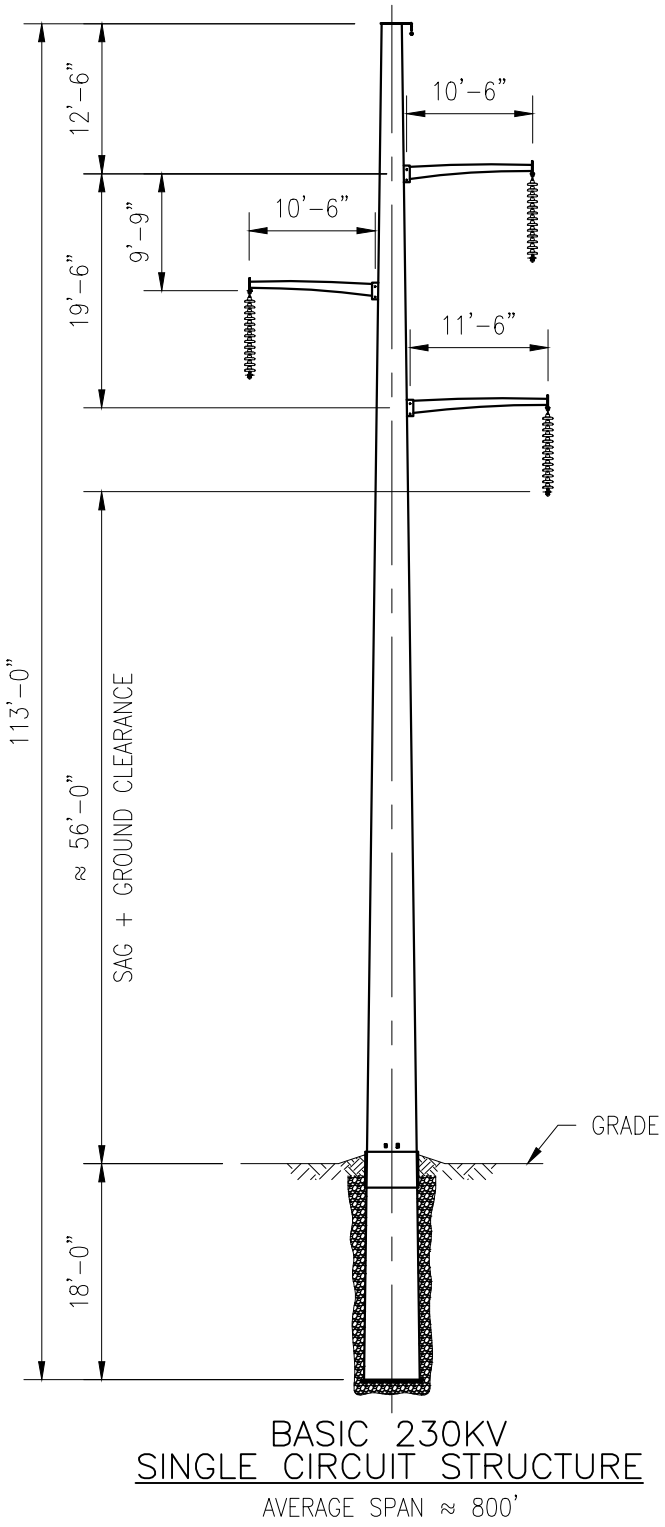
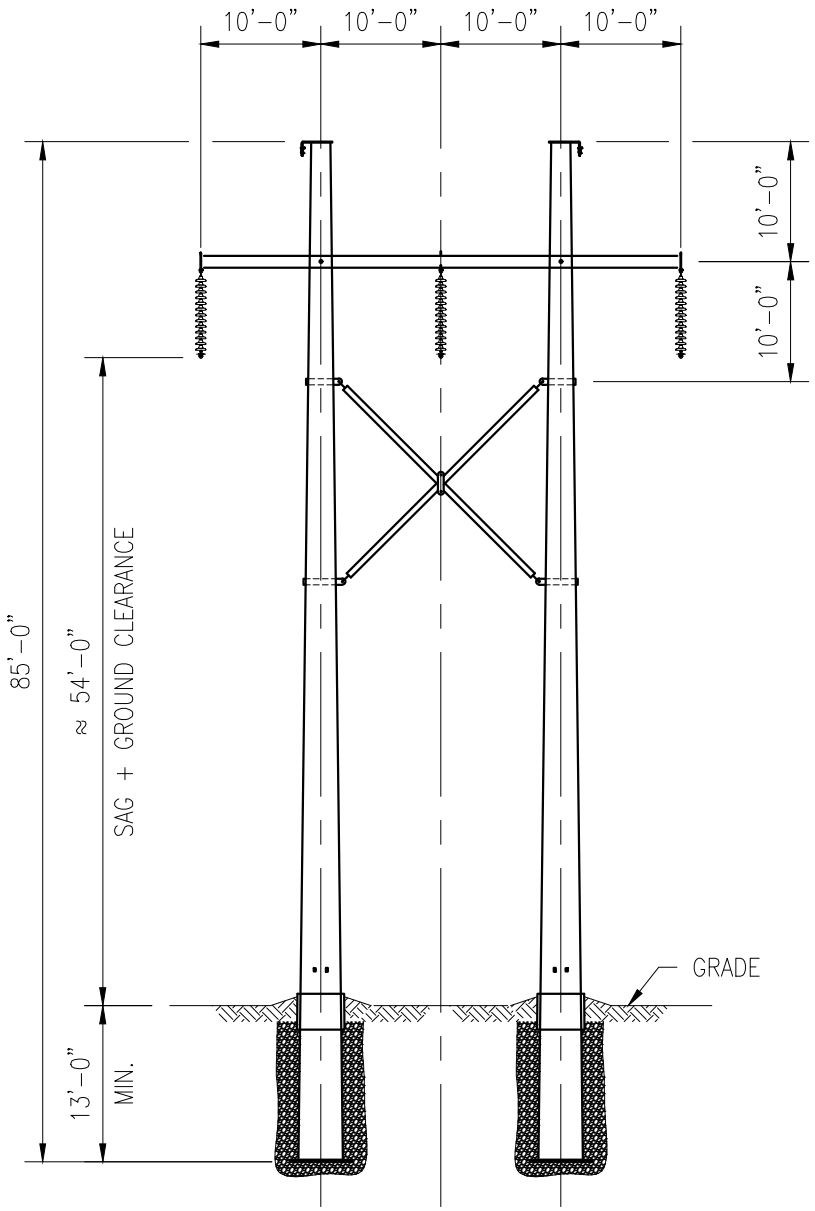
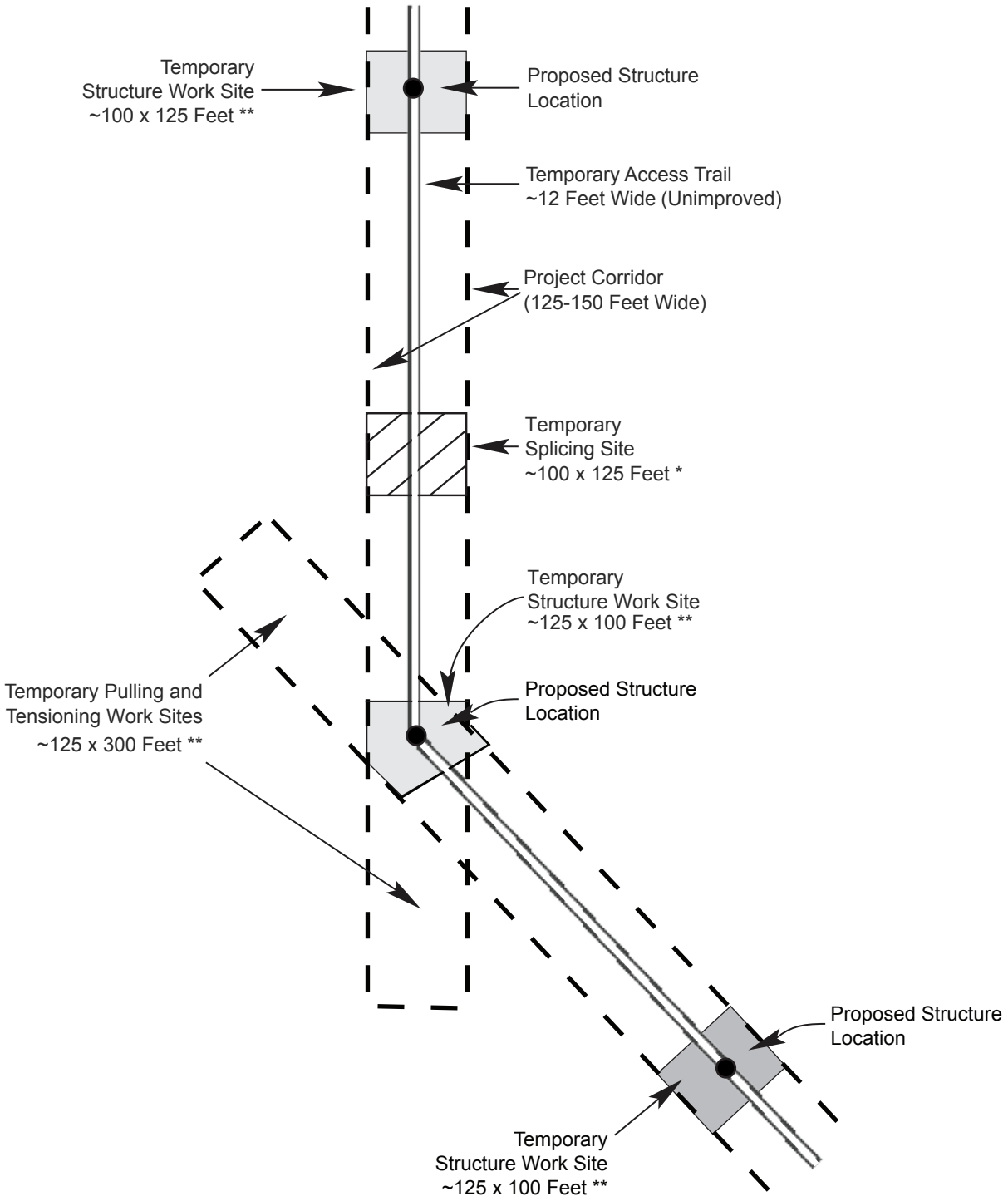


Figure 4-2 H-Frame Structure Diagram



BASIC 230KV SINGLE CIRCUIT
H-FRAME STRUCTURE

AVERAGE SPAN ≈ 800'



LEGEND

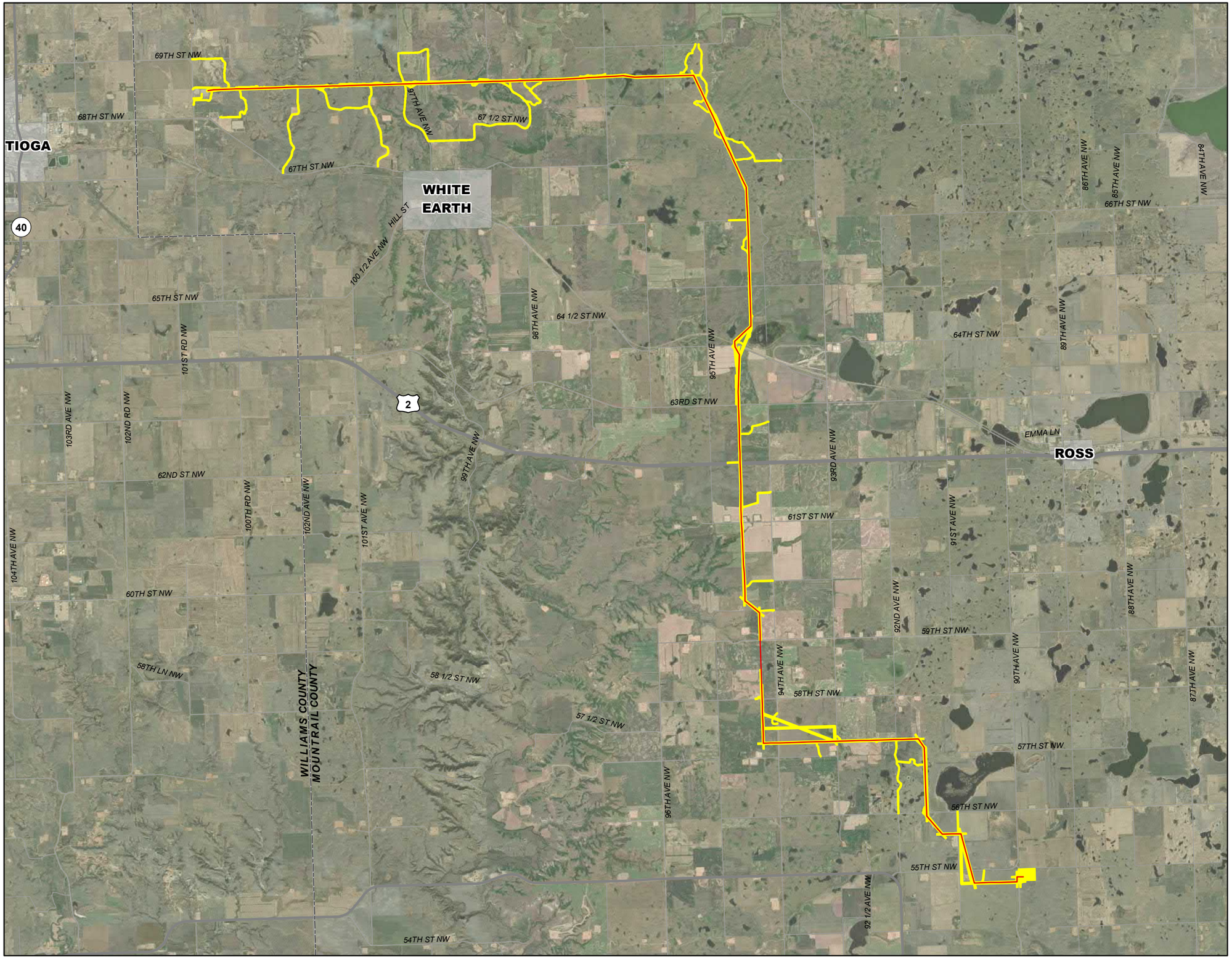
* ~10,000 Feet Intervals

** Single pole and H-frame structures require similar temporary work sites

Neset to Northshore 230-kV Transmission Line

Figure 4-3

Conceptual Construction Configuration Diagram



Legend

- County Road
- State/Federal Highway
- County Boundary
- City Boundary

Site Plan

- Neset to Northshore Transmission Line Route
- Cultural Resources Survey Corridor

0 1 2 Miles

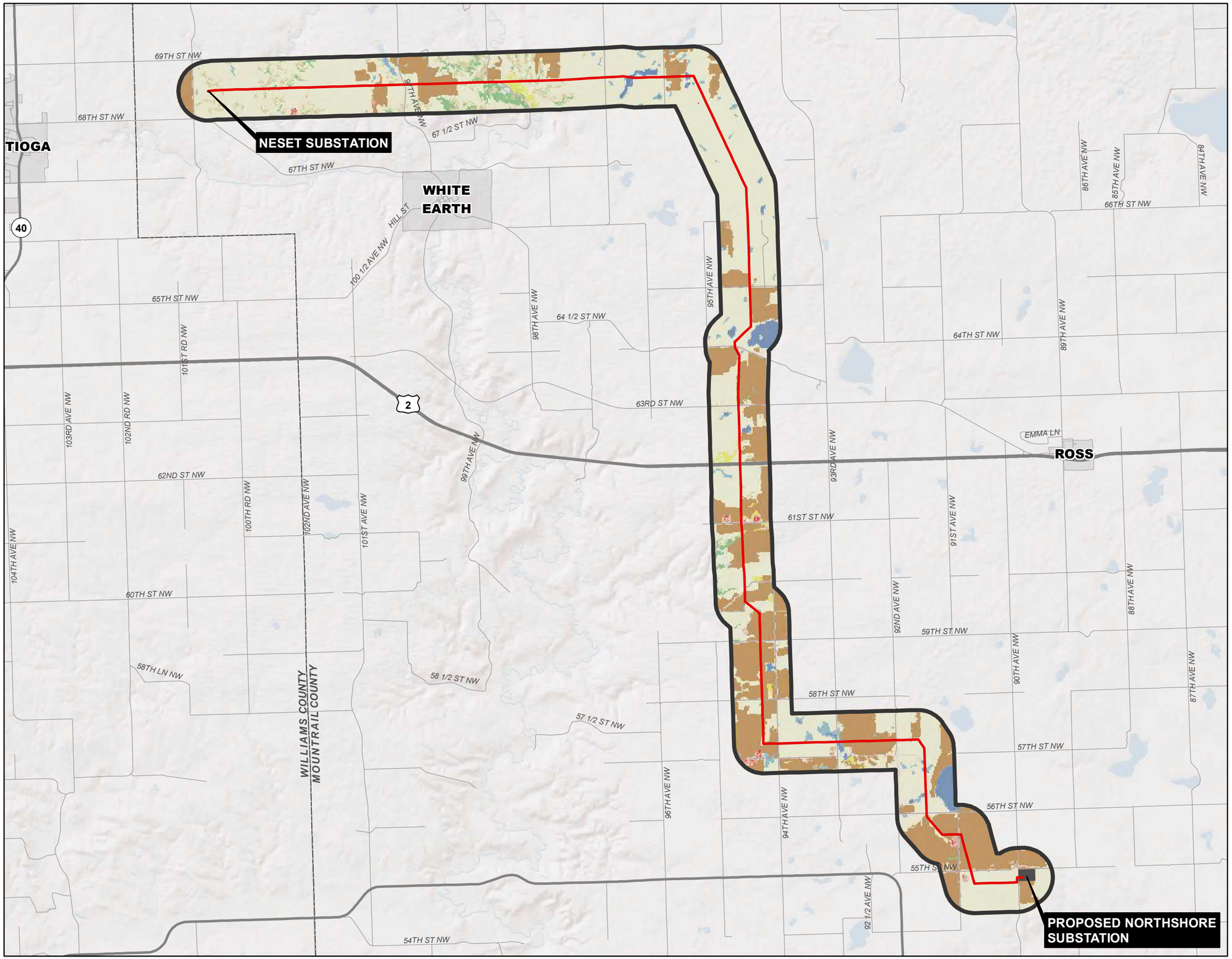
N W E S

Figure 5-1

Cultural Resources Survey Corridor Map

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

AECOM



Legend

- County Road
- State/Federal Highway
- County Boundary
- City Boundary

Site Plan

- Neset to Northshore Transmission Line Route
- Neset to Northshore Transmission Line Study Area

National Land Cover Dataset

- Developed, High Intensity
- Developed, Medium Intensity
- Developed, Low Intensity
- Developed, Open Space
- Deciduous Forest
- Mixed Forest
- Cultivated Crops
- Shrub/Scrub
- Hay/Pasture
- Herbaceous
- Open Water
- Emergent Herbaceous Wetlands
- Woody Wetlands
- Barren Land

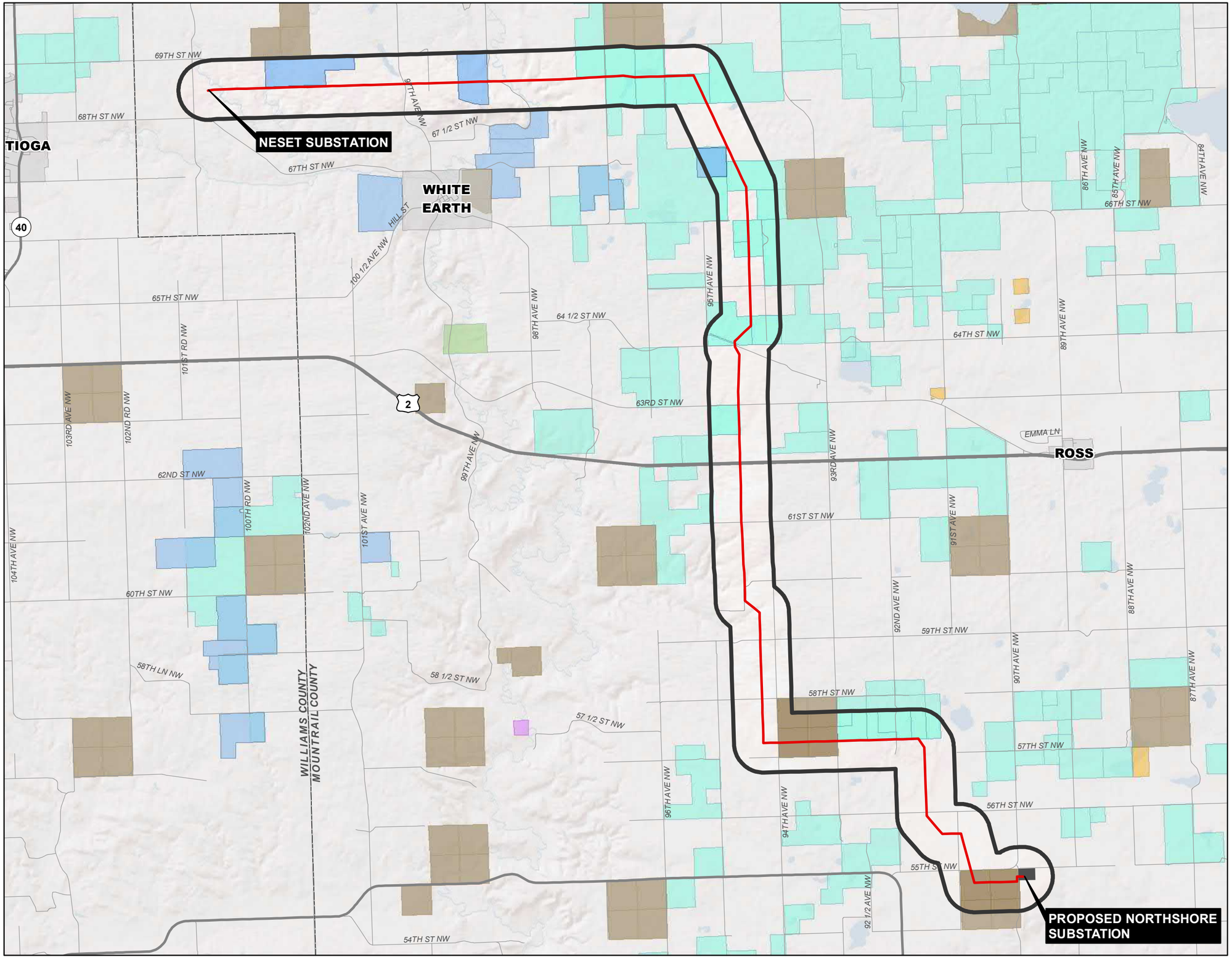
0 1 2 Miles

N W E S

Figure 5-2
Land Use Map

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

AECOM



Legend

- County Road
- State/Federal Highway
- County Boundary
- City Boundary

Site Plan

- Neset to Northshore Transmission Line Route
- Neset to Northshore Transmission Line Study Area

Public Lands, Easements & Agreements

- Wildlife Management Area
- Waterfowl Production Area
- School Trust Land
- Private Land Open To Sportsmen
- Bureau of Land Management
- Parcel Boundary for USFWS Wetland Easements*

**Individual wetland basin shapefiles are not available. No structures will be located within USFWS easements.*

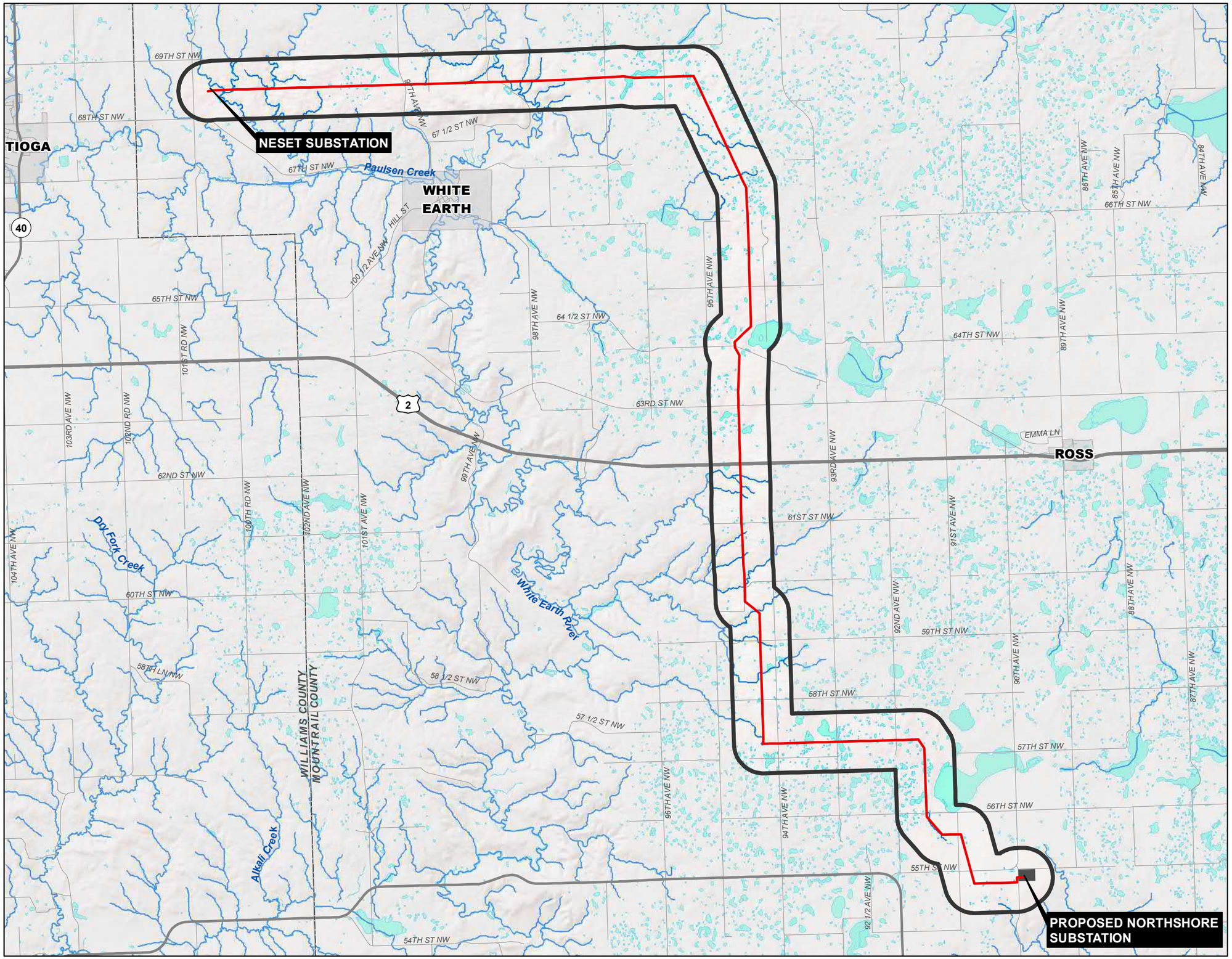
0 1 2 Miles

N W E S

Figure 5-3
Public Lands, Easements, & Agreements Map

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

AECOM



Legend

- County Road
- State/Federal Highway
- County Boundary
- City Boundary

Site Plan

- Neset to Northshore Transmission Line Route
- Neset to Northshore Transmission Line Study Area

Surface Water Resources

- National Hydrography Dataset
- National Wetlands Inventory

0 1 2 Miles

N W E S

Figure 5-4

National Wetlands Inventory and Surface Waters Map

Neset to Northshore 230-kV Transmission Line
Mountrail County, North Dakota

AECOM

Appendix A
Policies and Commitments Statement to Limit Environmental Impacts

Excerpts from **"RESOLUTIONS ADOPTED BY THE MEMBERS OF BASIN ELECTRIC POWER COOPERATIVE"** dated November 3, 2020.

STATEMENT OF PURPOSE

The Basin Electric Resolutions Committee shall review all resolutions before presentation to the membership at each Annual Meeting, and that all resolutions are subject to change by the membership at the Annual Meeting.

STATEMENT OF IDEALS AND OBJECTIVES

This statement was initially adopted by the Membership at the 1967 Annual Meeting.
It has been reviewed and readopted by the Membership at each subsequent Annual Meeting, and was last revised in 2020.

Basin Electric Power Cooperative (the Cooperative) was organized by its member systems in the Missouri River Basin to provide an adequate wholesale supply of dependable, low-cost electric power under democratic member control, consistent with the public interest.

We believe:

1. That an adequate, universally available and safe supply of affordable electricity is a vital ingredient for maintaining and improving the economy and the people's standard of living. We commit to ensuring that our generation and transmission resources are used for the benefit of the Cooperative and its member-owners, now and in the future, through cooperation with our power-supply partners.

2. That a clean and healthy environment, which we all need and enjoy, must be maintained and that the energy industry should minimize impacts to the environment.

3. That the Cooperative is dedicated to supporting a healthy agricultural economy, which is essential to the greater development of rural areas and the nation's general welfare. Furthermore, our commercial and industrial consumer-members are similarly important to cooperative health and should be encouraged.

4. That the Rural Utilities Service program of providing long-term, low-interest loan funds and loan guarantees to rural electric cooperatives is a vital element in providing low cost electricity for the social and economic benefit of people, and is one of the most beneficial programs ever undertaken by our federal government, and that this program should be continued as an important device to foster the economic development of rural areas and to help improve the standard of living of its consumer-owners.

5. That federal hydropower is an important renewable energy resource in the region, providing competitive cost-based rates to the membership. The long-standing statutory and contractual relationship between the membership and the federal government for preference power from these facilities should continue uninterrupted.

6. That the benefits of the development of our national resources should accrue to the people and that the federal government has the principal responsibility for establishing and maintaining programs and policies to protect the public interest in the multipurpose development, conservation, and utilization of our water and power resources.

7. That the Cooperative was established for all its members and the benefits of its operation should accrue to them on a consistent and uniform basis.

8. That people have the right to organize themselves to provide needed goods and services; that cooperatives and their associated entities can provide a yardstick of costs which benefit all consumers; and that they are consistent and help preserve our private enterprise system.

We pledge:

1. To provide our members with an adequate supply of wholesale electric power and high-quality service at the lowest-possible cost by:

a. Supporting use of the federal hydroelectric generating plants so these facilities continue to serve as the backbone of a region-wide power supply system.

b. Encouraging prudent development of clean and efficient power technologies, legislation, and research in the fuels and energy fields as it affects our lives and environment.

c. Operating the Cooperative’s energy production facilities in the most efficient, productive, and safe manner possible consistent with moral and legal obligations to protect civilization and the environment.

2. To maintain a competent staff of dedicated employees by establishing policies which provide challenging careers and fair compensation, and which recognize their rights and responsibilities.

3. To conduct the business affairs of the Cooperative as trustees for the interest of the members on a basis of honesty and equity.

4. To help promote area development throughout the Cooperative's service area by working with member systems in the planning and execution of programs to help develop the natural, human, and economic resources within the region, and to encourage conservative and efficient use of electrical energy.

5. To conduct a vigorous communication and education program to promote the Cooperative's policies, plans, and progress among its employees, members, and the general public.

6. Whenever requested and feasible, to aid other rural electric cooperatives, public agencies, and consumer-controlled organizations to obtain adequate wholesale power at the lowest-possible cost.

7. To encourage development of and work with consumer-owned and other organizations having similar objectives.

Resolution 4 - Environment

Basin Electric Power Cooperative (Basin Electric) supports the care and utilization of our natural resources. We believe that is best accomplished through 1) clear and easily interpreted environmental laws and regulations; 2) single, efficient, and predictable permitting processes; and 3) local oversight of compliance that ensures needed interpretations take into account the realities of the environment and local interests are being fairly considered.

Background:

Basin Electric has provided leadership, resources, and efforts in research to advance state-of-the-art conservation measures, including land reclamation and significant development of renewable generation sources from its inception. Basin Electric, its membership, and member-consumers are committed to maintaining a clean and healthy environment for ourselves and our communities. We also recognize the economic realities that dictate both an achievable environmental standard be maintained while providing satisfactory balance between protecting the environment and sustaining the economy.

Appendix B
Cultural Resources Summary

INTRODUCTION

Basin Electric Power Cooperative (Basin Electric) proposes to construct the Neset to Northshore 230-kV Transmission Line (Project) in Mountrail County, North Dakota. The transmission line would run from approximately three miles east of the community of Tioga to approximately seven miles south of the community of Ross. It crosses two sections of school trust land near its south end; the remainder is located on private land and is not subject to review and compliance within Section 106 of the National Historic Preservation Act. However, the Project will require a Certificate of Corridor Compatibility and Transmission Facility Route Permit from the North Dakota Public Service Commission as per North Dakota Century Code 49-22—Energy Conversion and Transmission Facility Siting Act. The Public Service Commission requires that the State Historical Society of North Dakota (SHSND) review the proposed Project for potential impacts to Cultural Resources. Based on consultation with the SHSND, the objective of the Class III Cultural Resources Inventory was to locate cultural resources within the study area, to determine whether those resources qualify for inclusion in the National Register of Historic Places (NRHP), and to assess the effect(s) that the Project may have on those resources as specified in the North Dakota State Historic Preservation Office (SHPO) *Guidelines Manual for Cultural Resource Inventory Projects*. Basin Electric requested that Metcalf Archaeological Consultants, Inc. (Metcalf) conduct a Class III Cultural Resource Inventory for the proposed Project. Fieldwork was conducted by Principal Investigators Ed Stine and William Bluemle, Staff Archaeologist Andrea Kulevsky, and Archaeological Technicians Shea Houston, Tucker Lutter, and Jackson Rohde between June 30 and December 3, 2020. The results of the inventory are discussed in two reports (Stine et al. 2020; Meens 2020).

THE UNDERTAKING

Basin Electric proposes to install a 230-kV overhead electric transmission line in Mountrail County. The transmission line would be approximately 26.5 miles in length with the northern approximately 8.5 miles of the east-west line placed immediately adjacent to an existing overhead line. The remainder is primarily north-south with some shorter lengths (one to three miles each) stepping down east-west and north-south. At each major direction change, 400-foot-long "pull lanes" are needed for stringing the line. Access and workspace would follow the transmission line right-of-way, using it where possible. Access roads include developed crown and ditch roads, two track farm roads, trails, and occasionally overland routes. Metcalf's survey corridor was 200 feet wide along the transmission line route and pull lanes, and 75 feet wide along access roads. A total of 1,221 acres were inventoried: 348 acres for access roads, 27 acres for pull lanes, and 810 acres for the transmission line route.

METHODS

Requirements for a Class III Cultural Resources Inventory include a Class I Literature Review, Class III field survey and a Class III report. Prior to mobilization, Metcalf field personnel

reviewed the Class I Literature Review and utilized Project shapefiles to locate any previously recorded sites, site leads, or points of interest likely to be encountered within the Project area.

The site files search revealed that 233 cultural resources have been recorded in the search area. These resources consist of 61 precontact sites, 64 precontact site leads, 11 precontact isolated finds, four precontact/historic/multi-component sites, 23 historic sites, eight historic site leads, six historic isolated finds, 29 architectural sites, one architectural site lead, and 26 cultural heritage sites. The majority of the precontact and cultural heritage sites are stone feature sites. Six precontact sites are crossed by or are adjacent to the survey corridor (32MN32, 32MN39, 32MN40, 32MN442, 32MN43, and 32MN44). There are also 14 prehistoric site leads crossed by or adjacent to the survey corridor, but the majority of these have vague location data and have boundaries encompassed by either 40 acre or 160-acre blocks.

FIELD METHODS

The inventory conformed to North Dakota's Guidelines for Cultural Resource Inventories (SHSND 2020). The inventory employed a pedestrian transect methodology with transects spaced no more than 15 meters apart. This methodology was used to inventory the entire undertaking's Area of Potential Effects (APE), defined as the survey corridor for this Project.

During the course of the inventory, Metcalf used handheld GPS units to map APE boundaries, took representative digital photographs, and maintained detailed field notes. When encountering a cultural resource, Metcalf photographed the resource(s), recorded measurements, took detailed notes, completed a North Dakota Cultural Resources Survey (NDCRS) form, created a field sketch map, and recorded information via a handheld GPS unit. At two previously recorded sites where visibility was reduced, 1 x 1-meter test units were excavated at the proposed structure locations to determine if those locations were potentially contributing elements to the site's eligibility.

RESULTS

Six previously recorded sites were investigated and 16 sites were newly recorded. Twenty sites would be spanned by the transmission line. Two sites cannot be spanned by the transmission line and structures would be placed within the site. Following coordination with SHSND Chief Archaeologist on how to proceed, test units (1 x 1-meter) were excavated within the two sites at the proposed structure locations to determine if the structure locations are contributing elements to the site's possible eligibility for the NRHP. The test units at the two structure locations indicated that those portions of the sites are not contributing elements, but the field investigation was too limited to evaluate the sites as a whole. Therefore, avoidance strategies have been developed for all eligible or unevaluated sites along the Project Corridor and in most cases involve avoidance of impacts to the sites and placing protective fencing around site features during construction. **Table 1** list the previously recorded and newly recorded sites as well as the avoidance strategies for each site.

A cultural resources report was submitted to the SHSND for review, and concurrence was received on November 2, 2020 (**Attachment 1**). A second cultural resources report was

submitted to the SHSND for review of adjustments to the Project Corridor, and concurrence was received on December 28, 2020 (**Attachment 2**).

Table 1 Recorded Sites and Avoidance Strategies

Smith #	Site Category	Site Type	Eligibility for NRHP	Avoidance Strategies
32MN38	Precontact	Stone Features	Unevaluated	Avoidance, fencing, use of rubber tires on construction vehicles
32MN39	Precontact	Unknown	Unevaluated	Avoidance of identified site within block
32MN40	Precontact	Stone Features	Unevaluated	Avoidance
32MN42	Precontact	Stone Features	Unevaluated	Avoidance to the extent possible, protective fencing around stone features, place structures at tested location
32MN43	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN44	Precontact	Cultural Material Scatter	Unevaluated	Avoidance to the extent possible, place structures at tested location, use of rubber tires on construction vehicles
32MN1608	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1609	Precontact	Stone Features	Unevaluated	Avoidance, fencing
23MN1610	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1611	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1612	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1613	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1614	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1615	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1616	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1617	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1618	Historic, Architectural	Structure, Dump, Foundations	Not Eligible	No avoidance
32MN1619	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1620	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1621	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MN1622	Precontact	Stone Features	Unevaluated	Avoidance, fencing
32MNX1049	Precontact	Stone Features	Unevaluated	Avoidance, fencing

REFERENCES

Meens, Daan
2020 *Basin Electric: Addendum to a Class III Cultural Resource Inventory for the Neset to North Shore 230-kV Transmission Line in Mountrail County, North Dakota*. Metcalf Archaeological Consultants Inc., Bismarck, North Dakota.

Stine, Ed, Andrea Kulevsky, Dierdre Bostyan, and Daan Meens
2020 *Basin Electric: A Class III Cultural Resource Inventory for the Neset to North Shore 230-kV Transmission Line in Mountrail County, North Dakota*. Metcalf Archaeological Consultants Inc., Bismarck, North Dakota.

Attachment 1

November 2, 2020 State Historical Society of North Dakota Concurrence Letter

November 2, 2020

Mr. Kevin Solie
Basin Electric Power Cooperative
1717 E Interstate Ave
Bismarck, ND 58503

ND SHPO Ref: 20-5998 "Basin Electric: A Class III Cultural Resource Inventory for the Neset to North Shore 230-kV Transmission Line in Mountrail County, North Dakota" in portions of [T155N R92W Section 31] [T155N R93W Sections 5, 8, 14-17, 22, 23, 25, 26, & 36] [T156N R93W Sections 5, 8, 17, 20, 29, & 32] [T157N R93W Sections 19-22, 26, 27, & 35] [T157N R94W Sections 20-24] MAC 2020.ND.062

Dear Mr. Solie,

We reviewed ND SHPO Ref: 20-5998 "Basin Electric: A Class III Cultural Resource Inventory for the Neset to North Shore 230-kV Transmission Line in Mountrail County, North Dakota" in portions of [T155N R92W Section 31] [T155N R93W Sections 5, 8, 14-17, 22, 23, 25, 26, & 36] [T156N R93W Sections 5, 8, 17, 20, 29, & 32] [T157N R93W Sections 19-22, 26, 27, & 35] [T157N R94W Sections 20-24] MAC 2020.ND.062 and find the report by Ed Stine, Andrea Kulevsky, Dierdre Bostyan, and Daan Means acceptable. We find that there has been a good faith effort to avoid impacts to significant sites provided all recommendations are followed.

Thank you for the opportunity to review this project under North Dakota cultural resources consultation. This letter does not serve as federal agency consultation or SHPO consultation for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, (36 CFR Part 800), or the National Environmental Policy Act, as amended, (42 U.S.C. §§ 4321- 4347).

If you have any questions please contact Lisa Steckler, Historic Preservation Specialist at (701) 328-3577 or lsteckler@nd.gov

Sincerely,

for William D. Peterson, PhD
Director, State Historical Society of North Dakota

20-5998

Attachment 2

December 28, 2020 State Historical Society of North Dakota Concurrence Letter

December 28, 2020

Mr. Kevin Solie
Basin Electric Power Cooperative
1717 E Interstate Ave
Bismarck, ND 58503

ND SHPO Ref: 20-5998 "Basin Electric: Addendum to a Class III Cultural Resource Inventory for the Neset to North Shore 230-kV Transmission Line in Mountrail County, North Dakota" in portions of [T155N R92W Section 31] [T155N R93W Sections 5, 8, 14-17, 22, 23, 25, 26, & 36] [T156N R93W Sections 5, 8, 17, 20, 29, & 32] [T157N R93W Sections 19-22, 26, 27, & 35] & [T157N R94W Sections 20-24] MAC 2020 ND.062

Dear Mr. Solie,

We reviewed ND SHPO Ref: 20-5998 "Basin Electric: Addendum to a Class III Cultural Resource Inventory for the Neset to North Shore 230-kV Transmission Line in Mountrail County, North Dakota" in portions of [T155N R92W Section 31] [T155N R93W Sections 5, 8, 14-17, 22, 23, 25, 26, & 36] [T156N R93W Sections 5, 8, 17, 20, 29, & 32] [T157N R93W Sections 19-22, 26, 27, & 35] & [T157N R94W Sections 20-24] MAC 2020 ND.062 and find the report by Daan Meens acceptable. We find that there has been a good faith effort to avoid impacts to significant sites.

Thank you for the opportunity to review this project under North Dakota cultural resources consultation. This letter does not serve as federal agency consultation or SHPO consultation for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, (36 CFR Part 800), or the National Environmental Policy Act, as amended, (42 U.S.C. §§ 4321- 4347).

If you have any questions please contact Lisa Steckler, Historic Preservation Specialist at (701) 328-3577 or lsteckler@nd.gov

Sincerely,

for William D. Peterson, PhD
Director, State Historical Society of North Dakota

20-5998

Appendix C
Unanticipated Discovery Plan for Cultural Resources and Human Remains

Unanticipated Discovery Plan for Cultural Resources and Human Remains

Neset to Northshore 230-kV Transmission Line
Basin Electric Power Cooperative
Mountrail County, North Dakota

Basin Electric Power Cooperative
1717 East Interstate Ave.
Bismarck, North Dakota 58503

BASIN ELECTRIC POWER COOPERATIVE
A Touchstone Energy® Cooperative

January 2021

Introduction

Although Basin Electric Power Cooperative (Basin Electric) has conducted thorough surveys for cultural resources along the Neset to Northshore 230-kV Transmission Line Project (Project) corridor and route, the potential exists for exposure of previously unidentified or buried cultural material during excavation and construction of the transmission line and associated facilities. The purpose of the Unanticipated Discovery Plan (UDP) is to document the procedures to be implemented by Basin Electric's construction coordinator and/or contractor if cultural resources, including archaeological sites and possible human remains, are inadvertently discovered during construction. This plan complies with the North Dakota's "Protection of Human Burial Sites, Human Remains, and Burial Goods" law (North Dakota Century Code [NDCC] 23-06-27) and accompanying administrative rules (North Dakota Administrative Code [NDAC] 40-02-03).

Unanticipated Discovery

In the event that previously unknown cultural (or paleontological) resources are discovered within the Area of Potential Effects (APE) during construction activities for the Project, or should those activities directly or indirectly affect known cultural resources in an unanticipated manner, the following actions, at a minimum, will be initiated by Basin Electric or a representative duly authorized to perform these tasks:

1. All activities will halt in the immediate vicinity of the discovery and all actions will be redirected to areas at least 100 feet from the edge of the discovery.
    a. Basin Electric's construction coordinator and/or contractor will immediately report the discovery to the appropriate parties identified in the Emergency Contact List found later in this document.
    b. Ground disturbing construction activities will not occur within 100 feet in any direction from the cultural resource until the site has been properly assessed as described in paragraph 2 (below) and the State Historical Society of North Dakota (SHSND) concurs that construction may resume.
    c. In the event that a cultural resource specialist or other necessary persons are not immediately available, Basin Electric will require that the discovery be covered or otherwise protected until such time that the cultural resource specialist can be present for inspection and evaluation.

2. Upon arriving at the site of the discovery, the cultural resource specialist will assess the resource. The assessment will include:
    a. The cultural resource specialist, in conjunction with a tribal monitor if appropriate, will ascertain the nature and the extent of the resource, and the potential for intact deposits. Evaluation will involve an examination of the ground surface, backfill piles, and exposed construction surfaces. The cultural resource specialist will discuss the potential for additional impacts to the resource with the construction manager.
    b. Based on this examination, the cultural resource specialist will recommend the unanticipated discovery location is:
        (1) not a site (e.g., isolated find or less than 50 years in age);
        (2) not a historic property, i.e., not eligible for inclusion in the National Register of Historic Places (NRHP);
        (3) a historic property, i.e., eligible for inclusion in NRHP or a culturally sensitive site for which no further impacts are likely to occur;
        (4) an NRHP-eligible or a culturally sensitive site (e.g., exposed hearths, house pits) that is likely to be impacted with further construction; or,
        (5) a site for which additional information is required to ascertain extent and NRHP eligibility.

The cultural resource specialist will provide information and a recommendation regarding the potential resource to SHSND to determine the most appropriate course of action.

Emergency Stabilization of Cultural Resources

Unstable earth conditions during construction or other unforeseen natural or man-made events could endanger cultural resources discovered during construction of the Project. If cultural resources are in imminent danger of destruction, Basin Electric will apply prudent methods to stabilize landforms around the unanticipated discovery. Once stabilized, the resource shall be assessed as described above, subject to safety concerns.

Salvage, Curation or Disposition of Cultural Materials

As stated in item 2.b.5 above, additional information may be required for the cultural resource specialist to assess the nature and extent of an unanticipated discovery and to provide a recommendation to SHSND regarding NRHP eligibility. With appropriate concurrence from SHSND, cultural materials may be salvaged for this purpose. This does not include cultural resources that are covered under North Dakota's "Protection of human remains, and burial goods" law (NDCC 23-06-27) and accompanying administrative rules (NDAC 40-02-03). All other cultural materials recovered from privately owned lands are considered the property of the landowner. After necessary laboratory analysis is completed, Basin Electric will provide the landowner with photographs and descriptions of cultural materials from his/her property. The landowner will be encouraged to contribute the materials for curation at the SHSND. If the landowner desires, Basin Electric will return cultural materials recovered from his/her land to him/her.

Unanticipated Discovery of Human Remains

If construction or other Project personnel identify what they believe to be human remains, they will immediately halt construction at that location and Basin Electric and the cultural resource specialist will be notified immediately. The construction coordinator will ensure that further construction does not occur within an area less than 100 feet in any direction from the edge of the discovery until a cultural resource specialist, in conjunction with Basin Electric environmental personnel, arrive to assess the discovery. The inspector will also secure the area of the apparent human remains to ensure no further disturbance or removal of those remains and associated material.

After arrival at the site, the cultural resource specialist will evaluate the discovery to determine if it does in fact consist of human remains. As required by law, Basin Electric will notify the Mountrail County Sheriff within 24 hours of the discovery. Basin Electric will also notify the SHSND of the finding.

Basin Electric and/or the contractor will secure the location by means of flagging or roping the perimeter of the avoidance area and covering or otherwise protecting the human remains and any associated materials. The remains will not be further disturbed prior to completion of consultations with respective agencies unless such disturbance is necessary to preserve or protect the human remains. Any disturbance necessary to preserve or protect the remains must be done in consultation with law enforcement, SHSND, and the cultural resource specialist. The 100-foot-radius avoidance area may be expanded if the context of the human remains suggests additional human remains may be present within the construction area or if construction activities outside the 100-foot-radius area might destabilize or otherwise degrade the context of the human remains.

Law enforcement will determine whether the finding is associated with a crime scene within 15 days. If deemed not a crime scene, law enforcement will notify the SHSND of their findings. No cultural resource investigations of human remains can occur without a permit from SHSND. The cultural resource specialist will work with SHSND to obtain a permit to conduct investigations of the location. If the remains are determined to be Native American, or if the ethnic identity of the remains is unknown, SHSND will notify the Intertribal Re-interment Committee. A meeting of interested parties will be set up as soon as possible, preferably within 36 hours of the decision that there is no evidence of a crime, to ensure that the disturbed

remains receive the maximum protection. SHSND, in consultation with the tribes (as appropriate) and Basin Electric, will agree upon a suitable action.

Work cannot proceed until the stipulations of Protection of Human Burial Sites, Human Remains and Burial Goods in NDCC Section 23-06-27 and Protection of Prehistoric Sites and Deposits in NDAC Section 40-02-03 have been met.

Emergency Contact List

Entity	Name	Role	Telephone Number
Basin Electric Power Cooperative	Lucas Tiegen	Manager Field Services	701.223.0441
Basin Electric Power Cooperative	Kevin Solie	Environmental Administrator	701.223.0441
Basin Electric Power Cooperative	Bobby Nasset	Project Manager	701.223.0441
Metcalf Archaeological Consultants, Inc.	Daan Meens	Cultural Resource Specialist	701.258.1215
Mountrail County Sheriff's Office	Corey Bristol	County Sheriff	701.745.3347
Mountrail County Coroner	Corey Bristol	County Coroner	701.628.2975
State Historical Society of North Dakota	Andrew Clark	Chief Archaeologist	701.328.3574

Appendix D
Wetland Mapping Report

Wetland Mapping

Neset-North Shore Transmission Line

Prepared for:

Basin Electric Power Cooperative

Prepared by:

Western EcoSystems Technology, Inc.

4007 State Street, Suite 109
Bismarck, North Dakota 58503

October 2020

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1.0 INTRODUCTION

Basin Electric Power Cooperative (BEPC) proposes to construct and operate the 230-kilovolt (kV) Neset to North Shore Transmission Line Project (Project) in Mountrail County, North Dakota. BEPC plans to submit to the North Dakota Public Service Commission a consolidated application for a Certificate of Corridor Compatibility and Transmission Facility Route Permit for the Project and complete construction in 2022. This report supports these permitting and construction planning efforts.

The Project would be approximately 26.5 miles long and connect the existing Neset Substation located near Tioga, North Dakota, to the proposed North Shore Substation located approximately seven miles south of Ross, North Dakota. The single-circuit transmission line would be constructed using steel single-pole self-supporting structures within a 125 to 150-foot-wide right-of-way (ROW). Typical transmission structures would range in height from 70 to 115 feet, with span distances ranging from approximately 350 feet to 1,100 feet depending on topography. Taller structures would be used for crossing existing distribution and transmission lines or where unusual terrain exists. In special circumstances, steel H-frame structures may be used when span and/or strength requirements preclude the use of single-pole structures.

BEPC contracted with Western EcoSystems Technology, Inc. (WEST) to conduct wetland and waterbody mapping for the Project. WEST conducted a desktop and field assessment to identify and map wetland and waterbody boundaries within the Project (Figure 1). This report summarizes the results of the 2020 surveys.

2.0 METHODS

For purposes of this report, the term wetland is used to include all water resources (i.e., wetlands and waterbodies) as all features had at least a wetland fringe that were mapped. The boundaries of potential wetlands were verified in the field and updated where needed to match conditions in fall 2020. Wetland boundaries can vary over time with wetter or drier conditions.

2.1 Desktop Assessment

Prior to field surveys, a desktop assessment was completed to identify wetland and waterbody areas within an area 250 feet either side of the proposed transmission line centerline, in pulling lanes extending outside of this buffer, and within 25 feet of proposed access roads. Wetland areas were identified using National Wetland Inventory (NWI) and recent aerial photographs for wetlands and waterbodies (i.e., drainages).

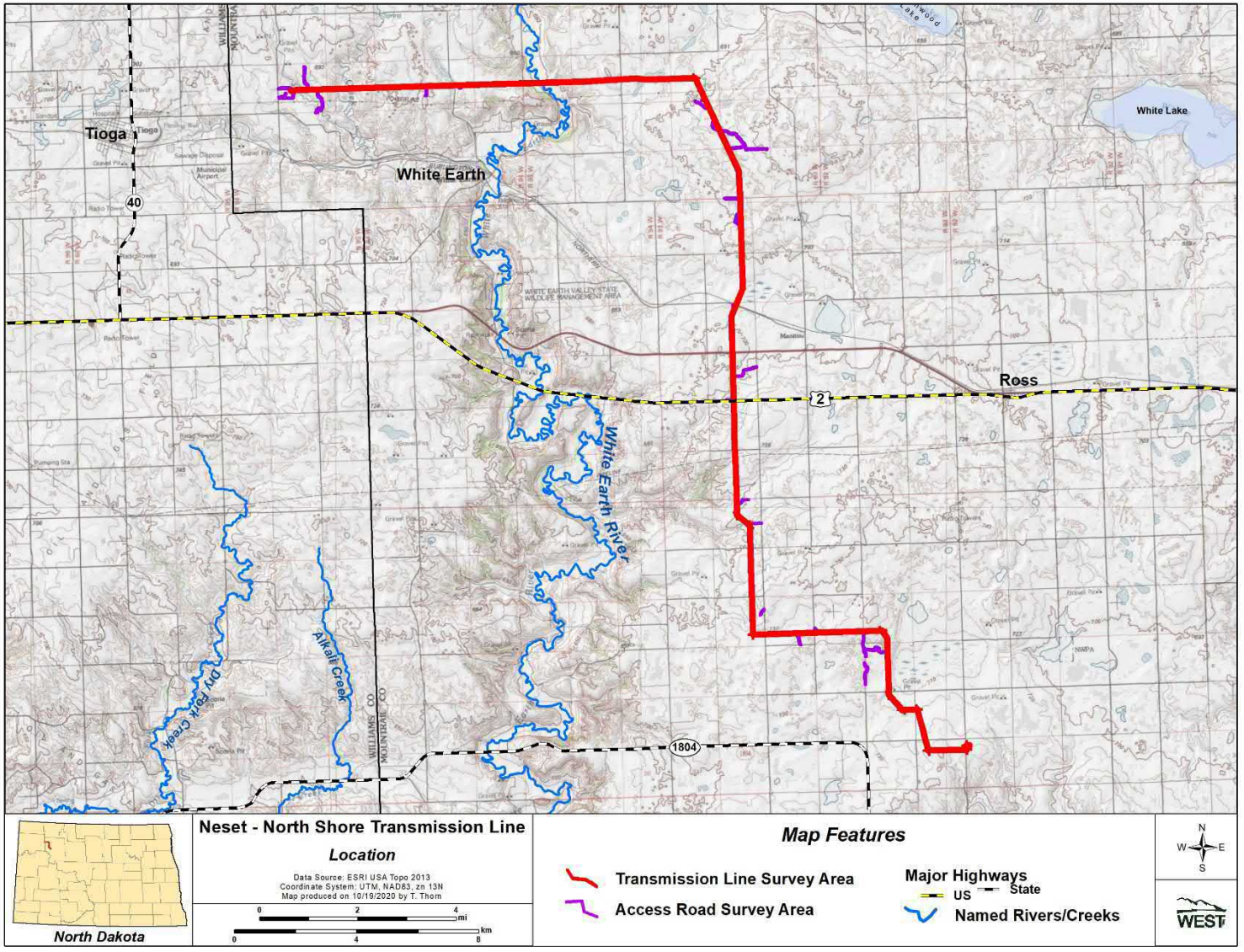


Figure 1. Wetland mapping survey area for the proposed Neset to North Shore Transmission Line Project, Mountrail County, North Dakota.

2.2 Field Survey

During the field survey, biologists evaluated all features identified during the desktop assessment as well as all other wetland features encountered within the survey area around the transmission line and access roads.

Delineating wetlands is a common field exercise used to support project permitting and planning. The U.S. Army Corps of Engineers has published detailed methods for delineating these features following a three-parameter process. For this Project, BEPC requested WEST conduct wetland mapping such that water features can be avoided. If wetlands cannot be avoided, delineations will be needed. As such, the field methods were modified to allow for a more rapid investigation and subsequent mapping following a two-parameter approach based on visual assessment of vegetation and hydrology. The following methods were used to map potential features.

If a feature was clearly a wetland, the desktop boundary was confirmed or the current boundary was mapped following wetland/upland vegetation breaks, slope, and hydrology indicators. Boundary mapping and all data collection was accomplished using the Collector application from ArcGIS loaded onto a tablet, with a Trimble R1 GPS receiver rated to ~50 centimeter (cm) accuracy. If the site was not obviously a wetland, biologists conducted a rapid vegetation assessment and hydrology assessment. Wetland indicators included the presence of obligate vegetation ([OBL]; e.g., cattails or sedges) and standing water or saturation. If a site was dominated by obligate species, lacked upland species, and had hydrology indicators, the site was documented as a wetland and mapped accordingly. If a site had a mix of OBL, facultative wet (FACW), facultative (FAC), and UPL species, biologists then conducted a qualitative assessment to determine if wetland plant species were dominant (greater than 50% coverage). If wetland species were dominant and hydrology indicators were present, the area was mapped as a wetland. If a site was dominated by UPL species and lacked hydrology indicators, biologists documented the site as “no wetland”.

3.0 RESULTS AND CONCLUSIONS

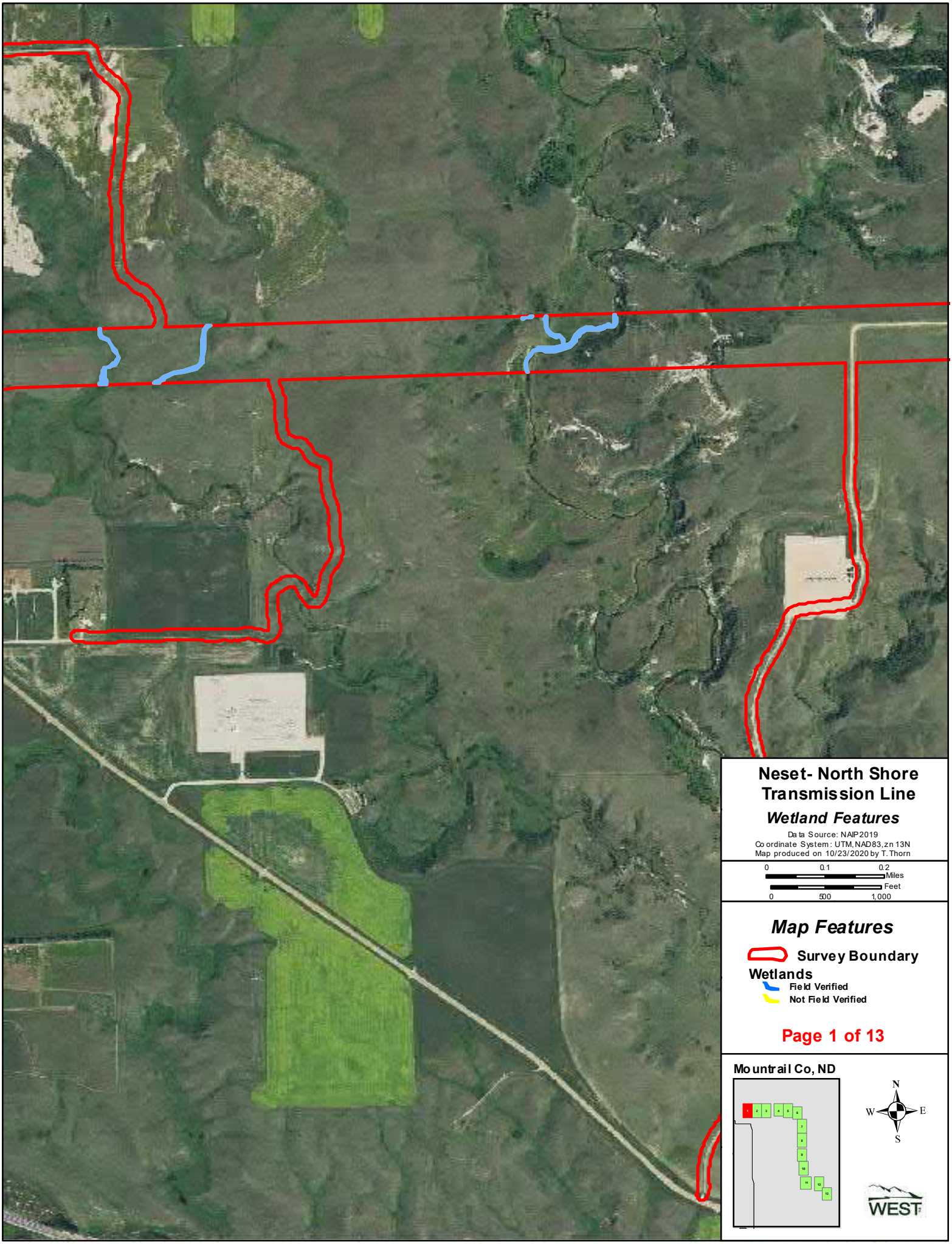
A total of 124 wetlands were mapped through the desktop and field mapping efforts. Of these, 123 were within the 500 foot wide transmission line survey corridor (Appendix A). One wetland was only within the access road survey corridor. Seven small wetlands were not verified in the field but their desktop boundaries are retained for planning purposes (Appendix A). Most wetlands were small isolated potholes, but some wetlands did extend across the entire ROW. Wetlands that extended across the entire ROW include the White Earth River and a few larger wetlands. The largest wetland has an approximately 830 foot crossing width. Given the transmission line is planned to have pole spacing of 350-1,100 feet, all wetlands should be able to be spanned with no poles needing to be placed within wetlands. If wetland and waterbodies cannot be avoided during construction of the Project, further delineations for permitting purposes may be required.

A shapefile of the mapped wetlands and waterbodies was provided to BEPC to be used in Project planning so impacts can be avoided.

4.0 LITERATURE CITED

ESRI. 2012. Data and Maps for ArcGIS 10.1. Environmental Systems Research Institute (ESRI), producers of ArcGIS software. Redlands, California. Information online: https://www.esri.com/en-us/arcgis/ products/arcgis-online/resources

Appendix A. Map Book Wetland and Waterbodies Mapped for the proposed Neset to North Shore Transmission Line Project, Mountrail County, North Dakota



Neset- North Shore Transmission Line

Wetland Features

Data Source: NAIP2019
Coordinate System: UTM, NAD83, zn 13N
Map produced on 10/23/2020 by T. Thorn

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Map Features

Survey Boundary

Wetlands
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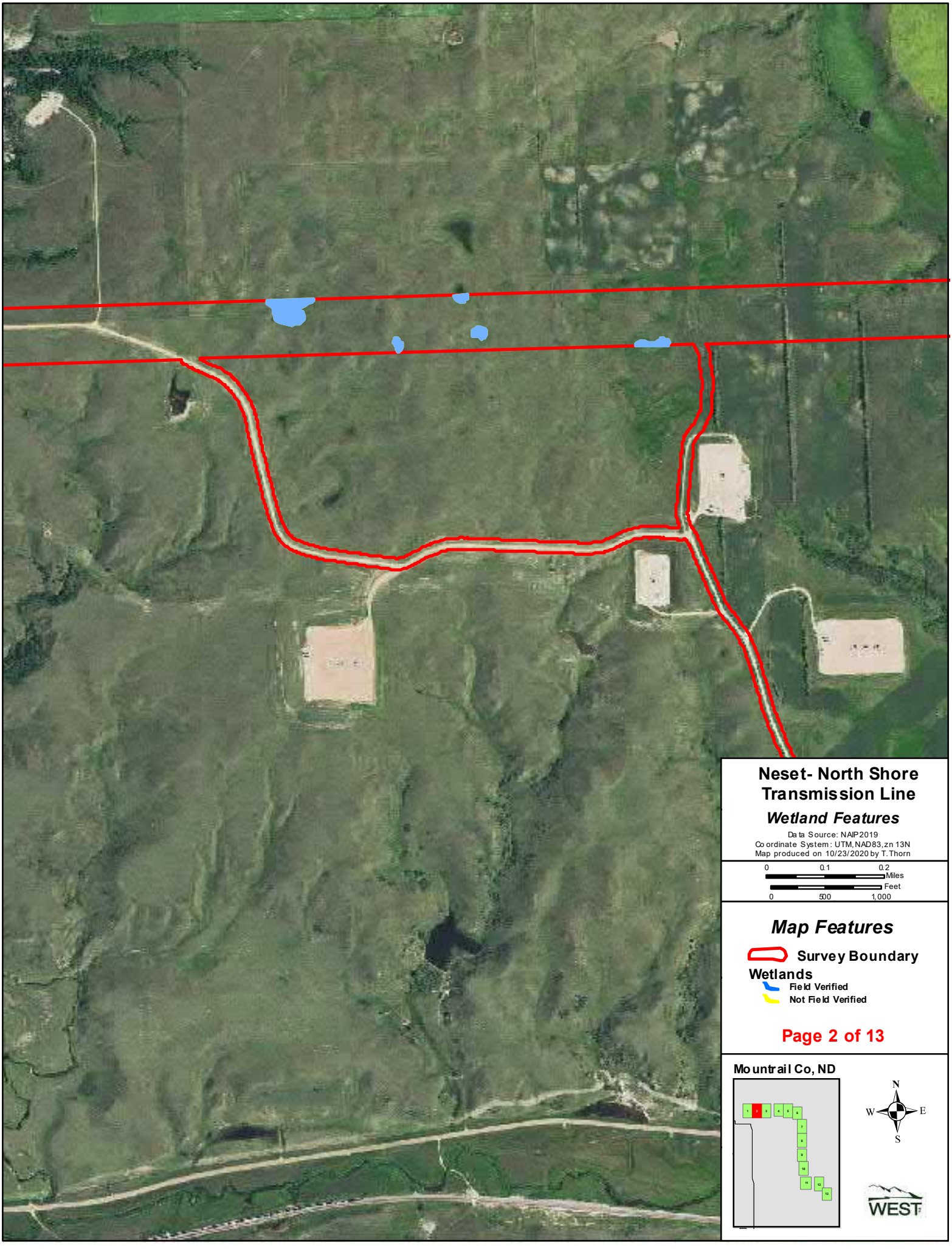

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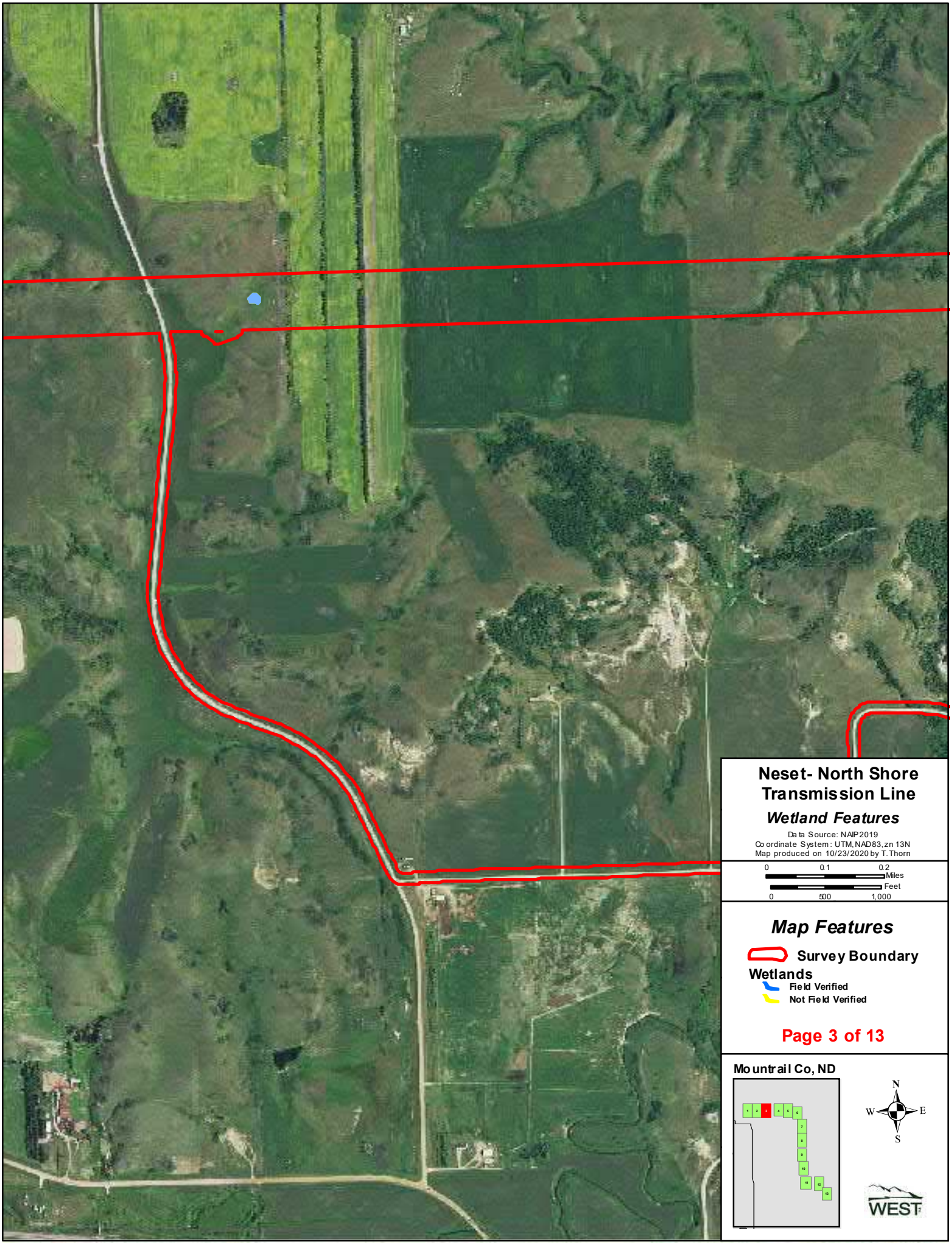

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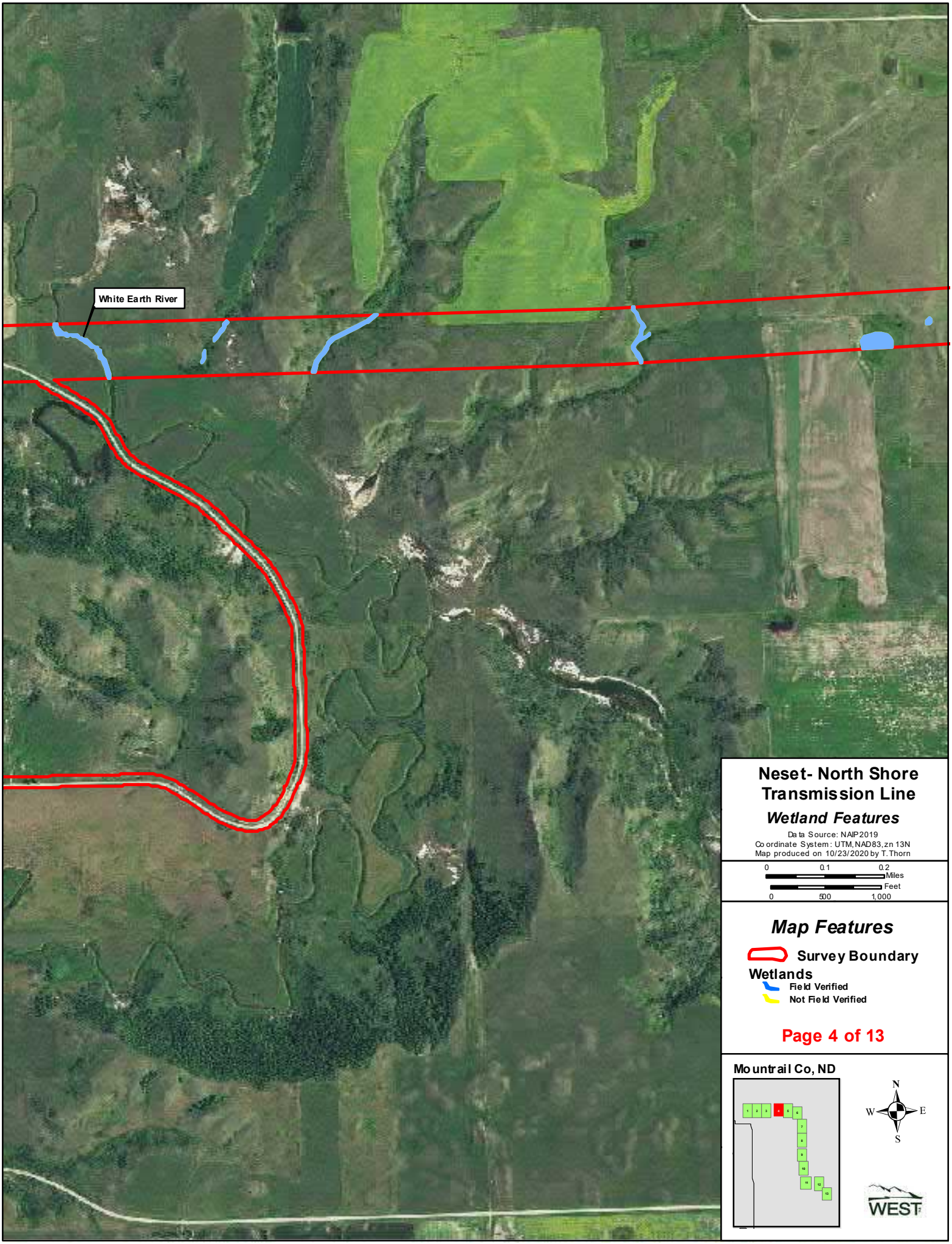

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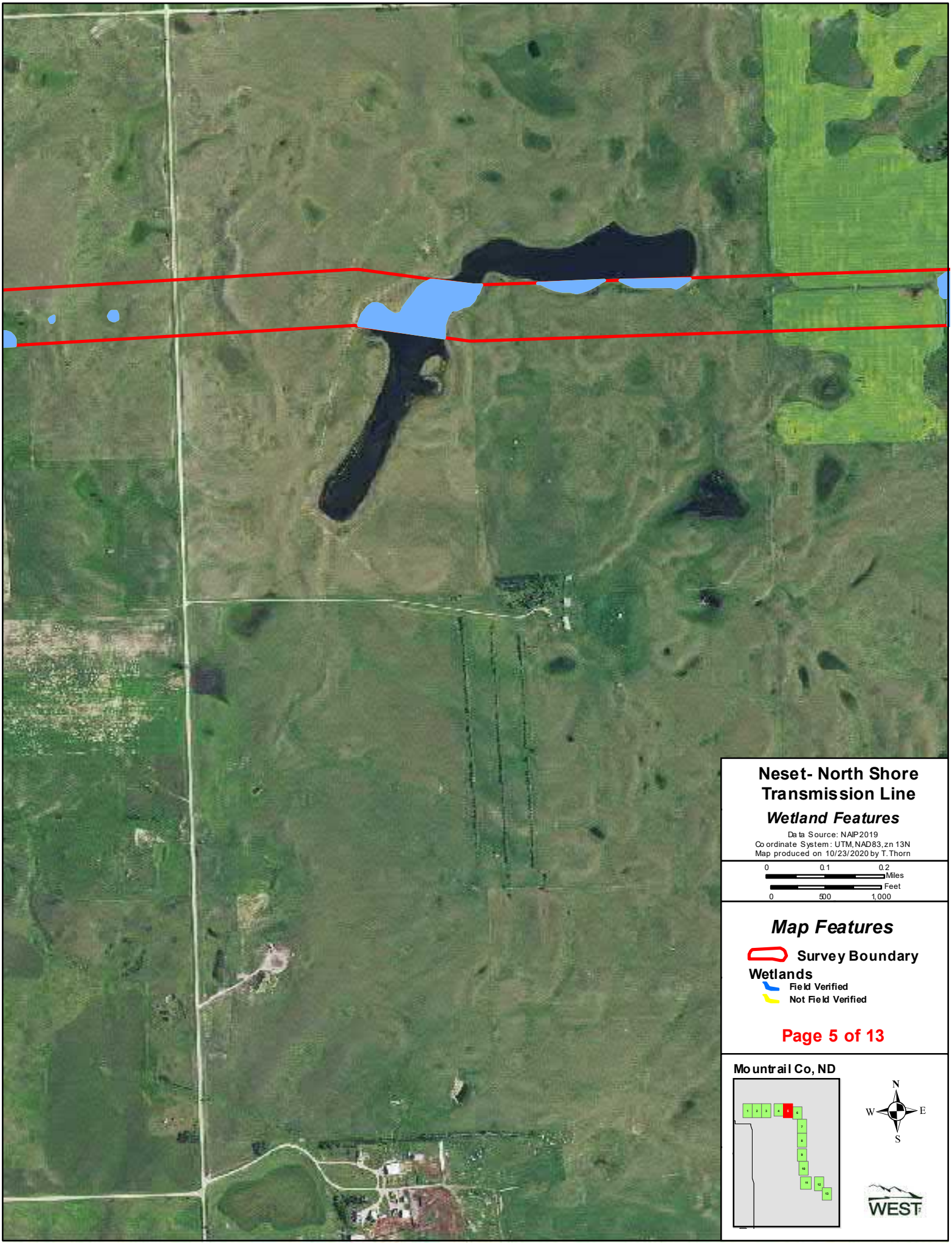

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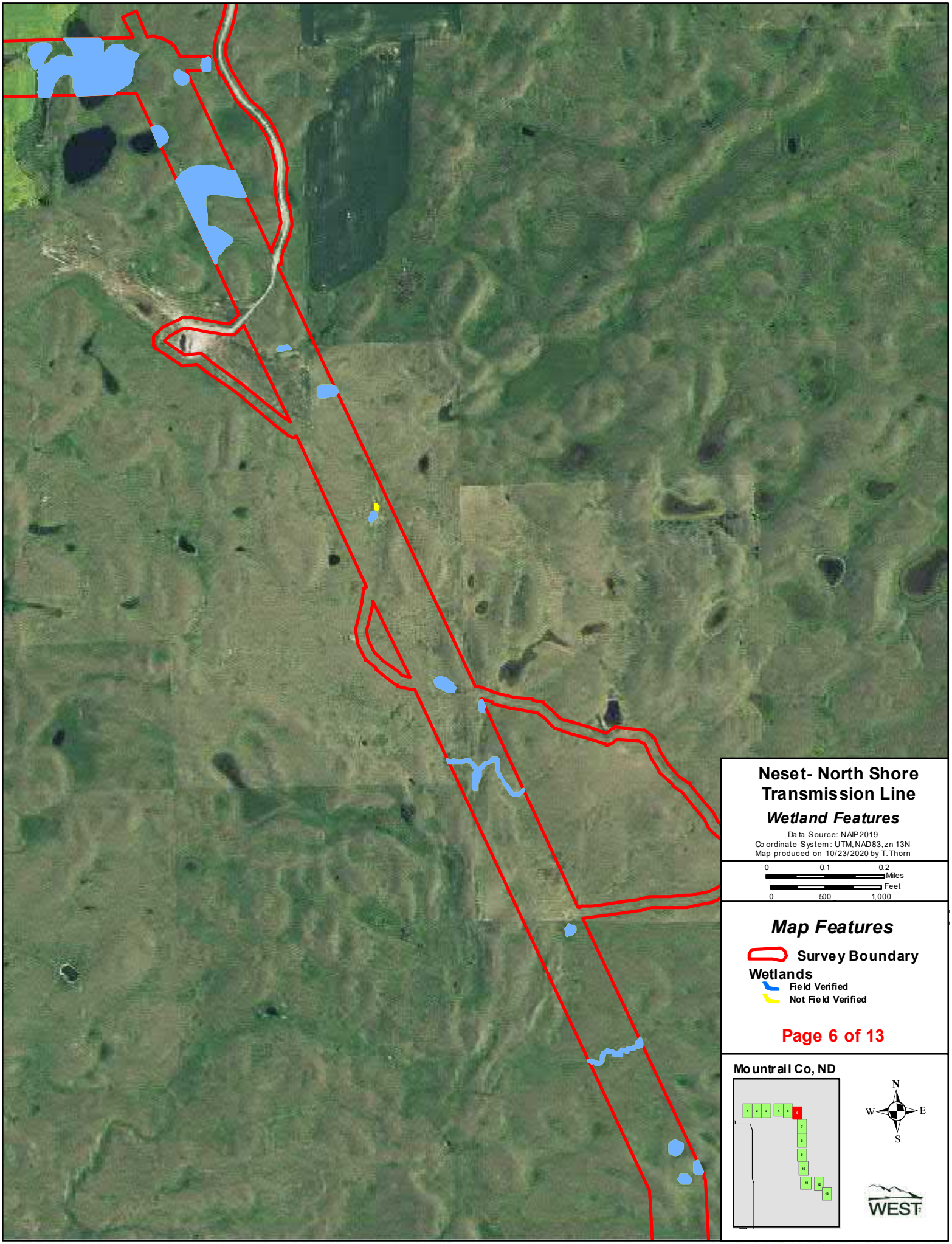
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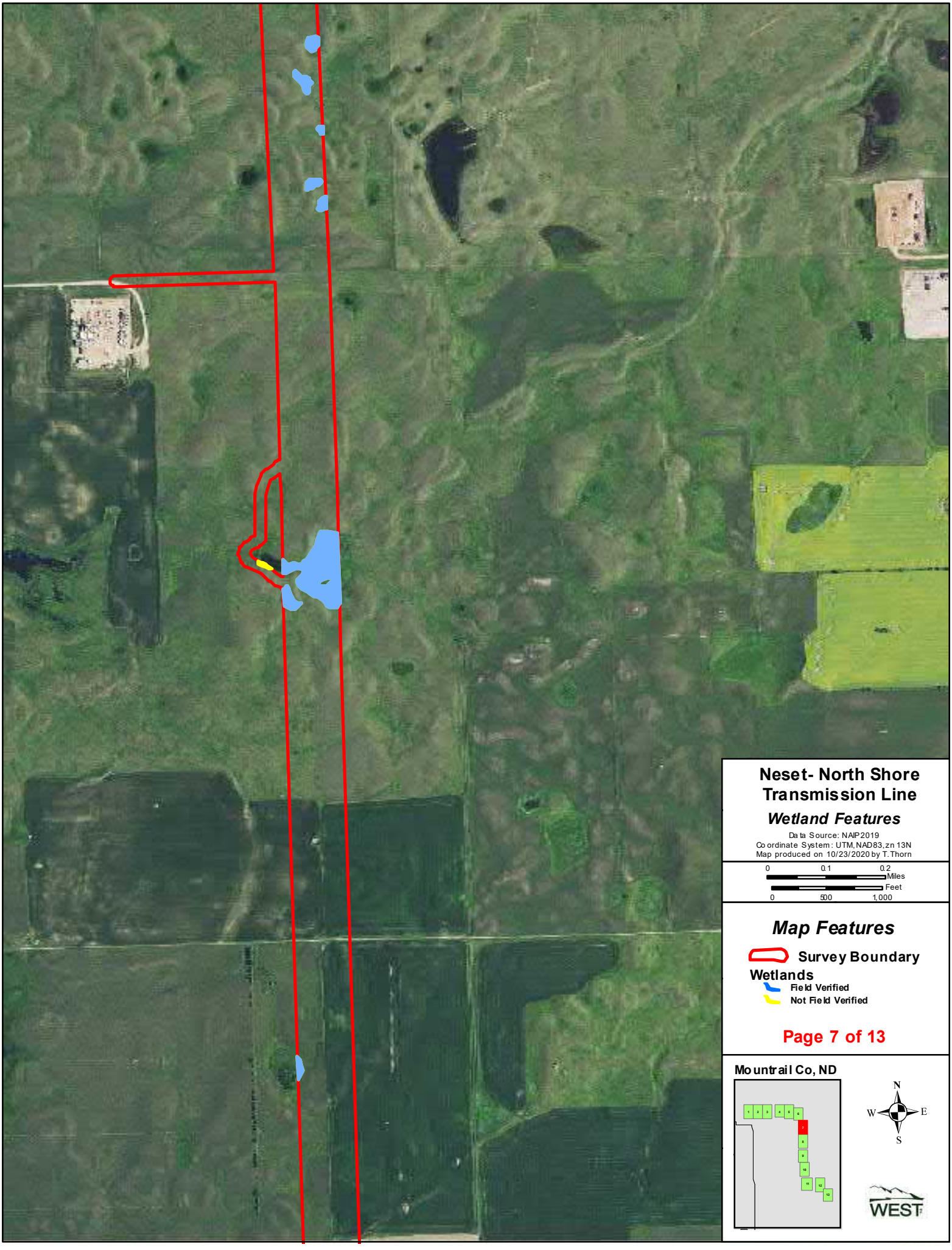

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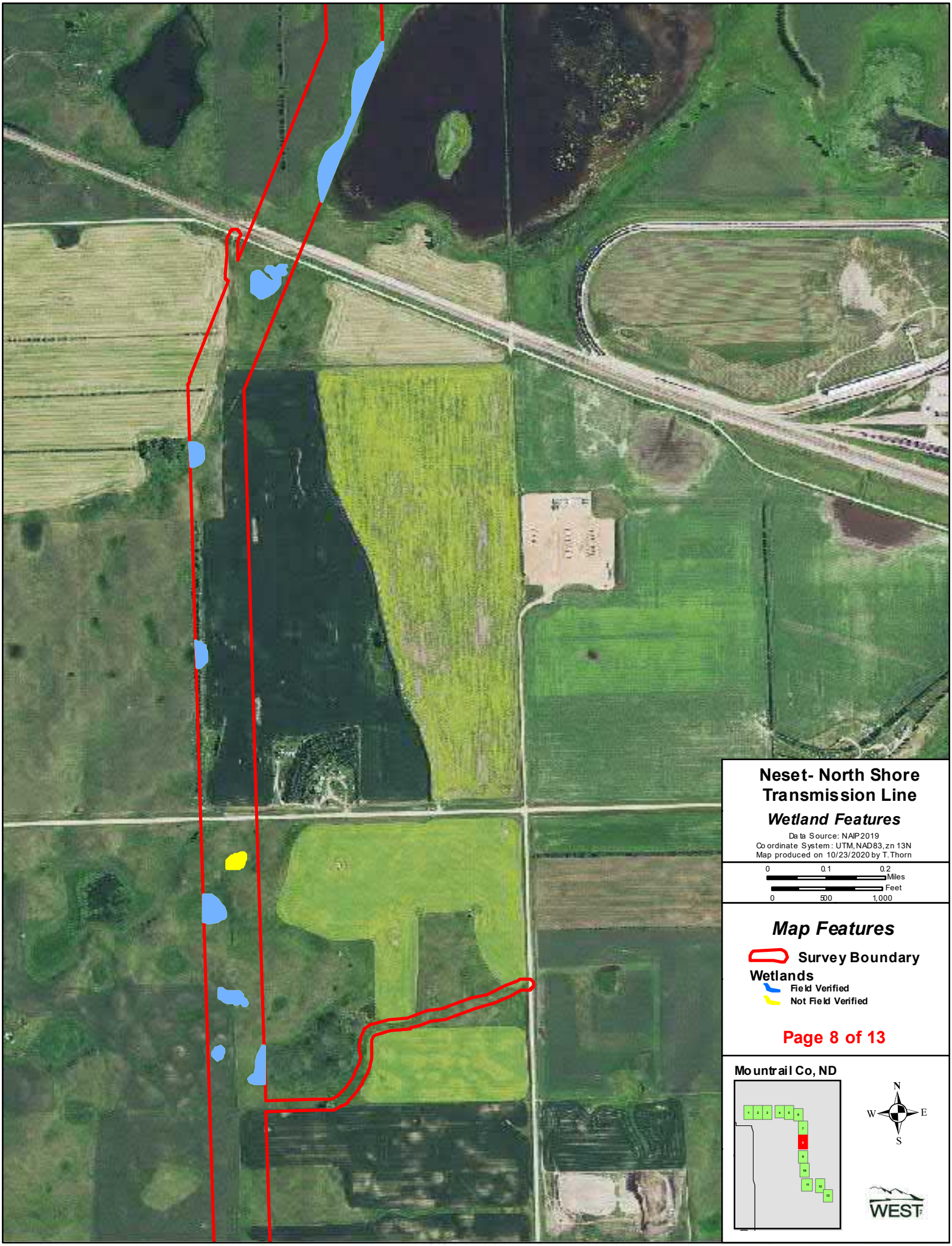

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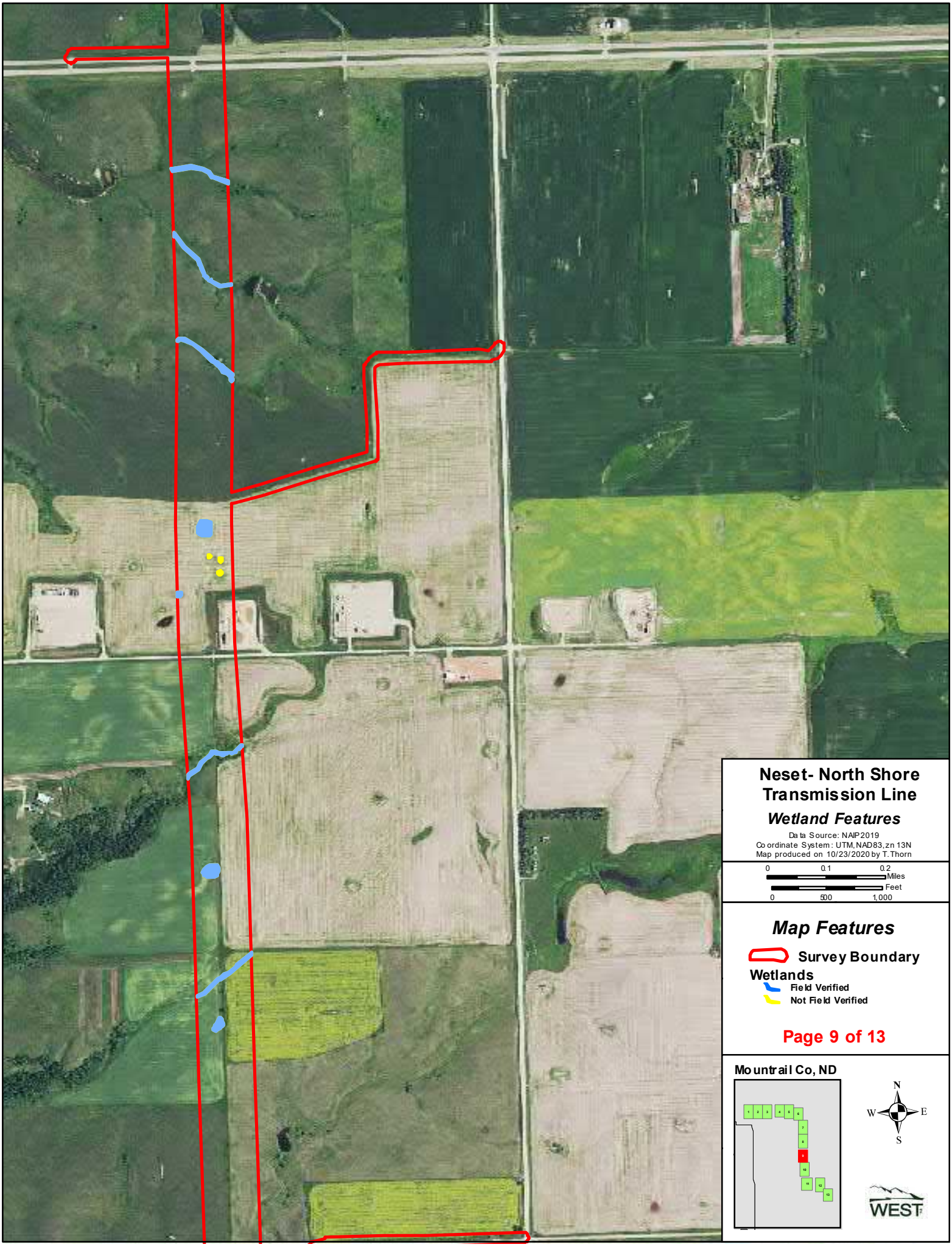
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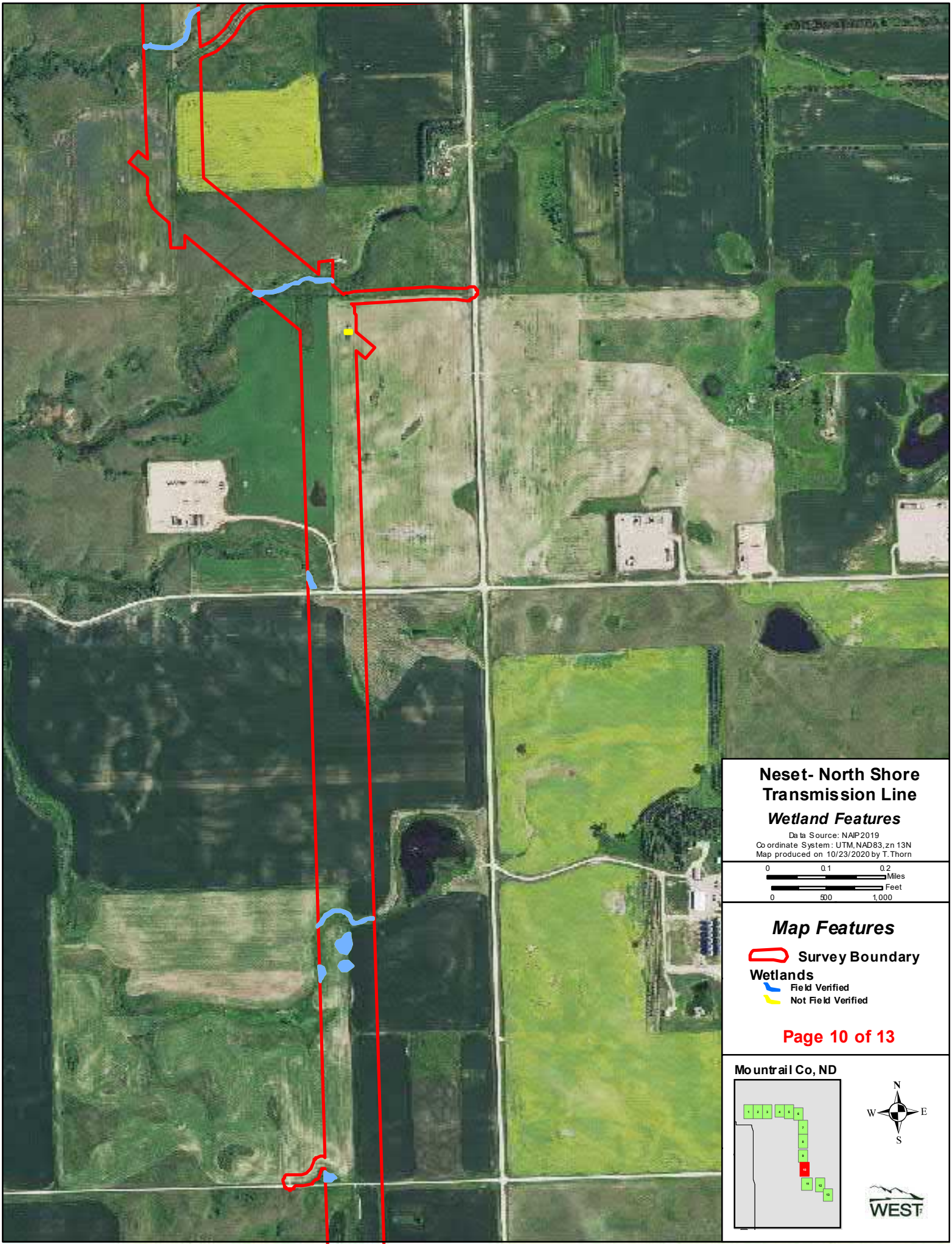

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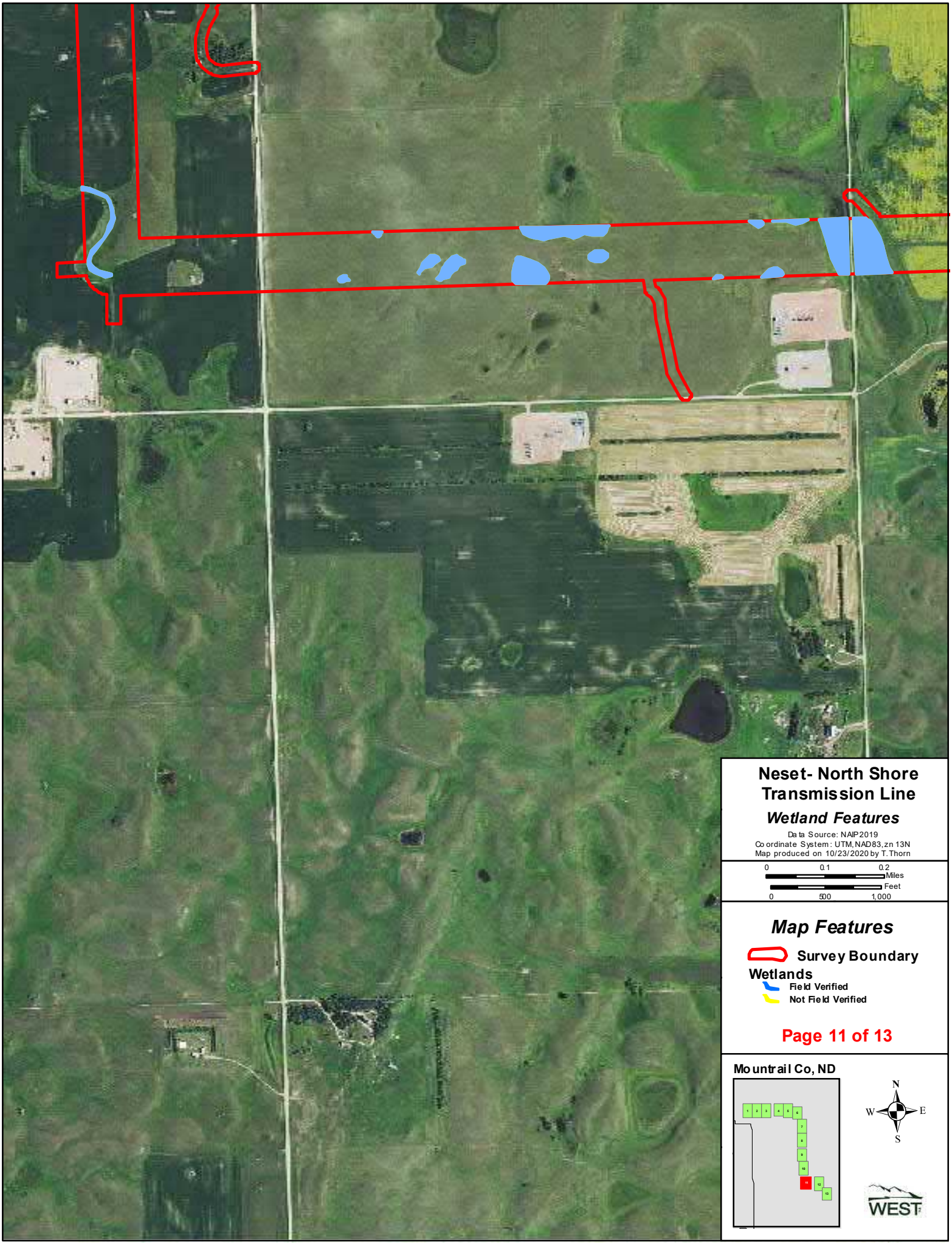

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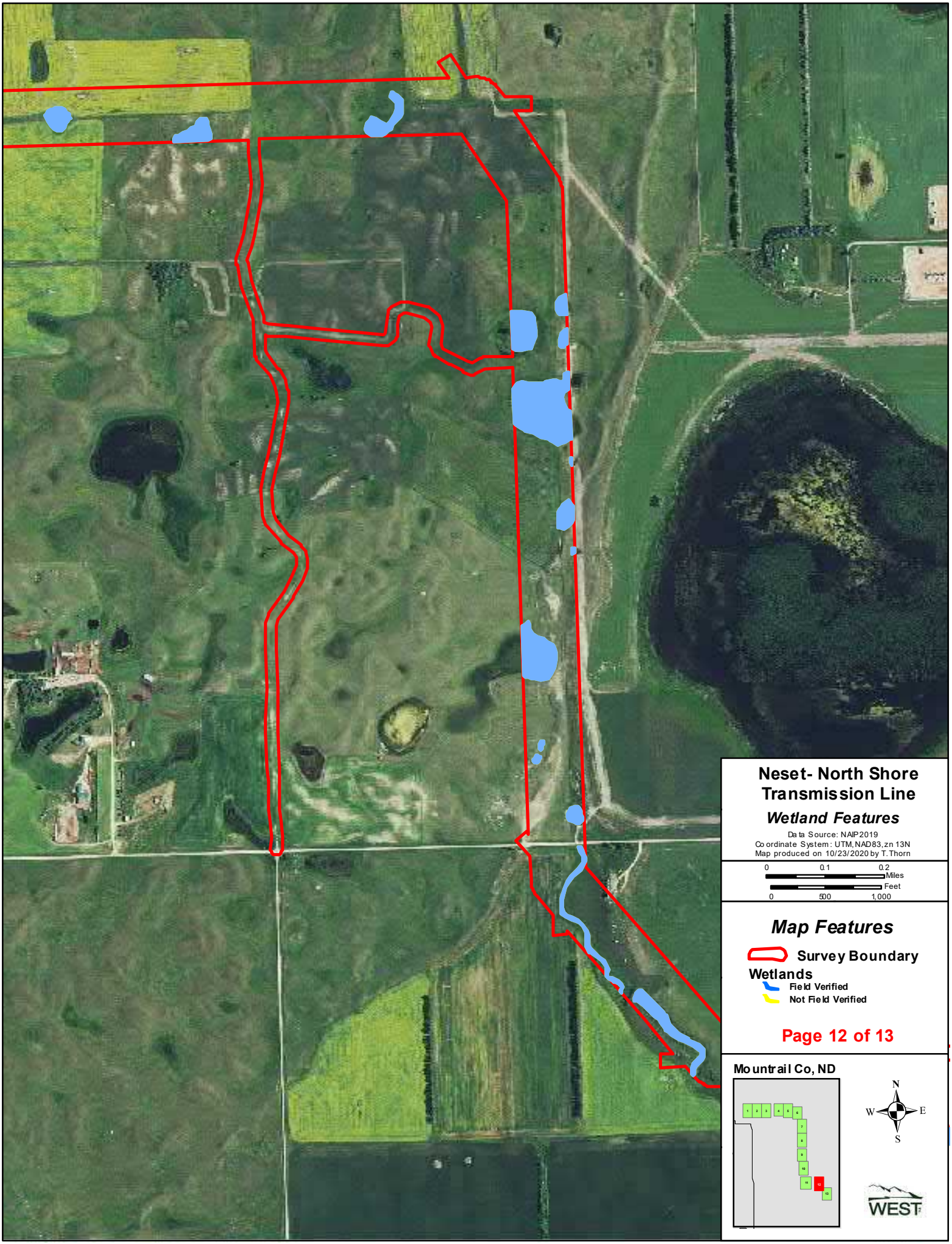
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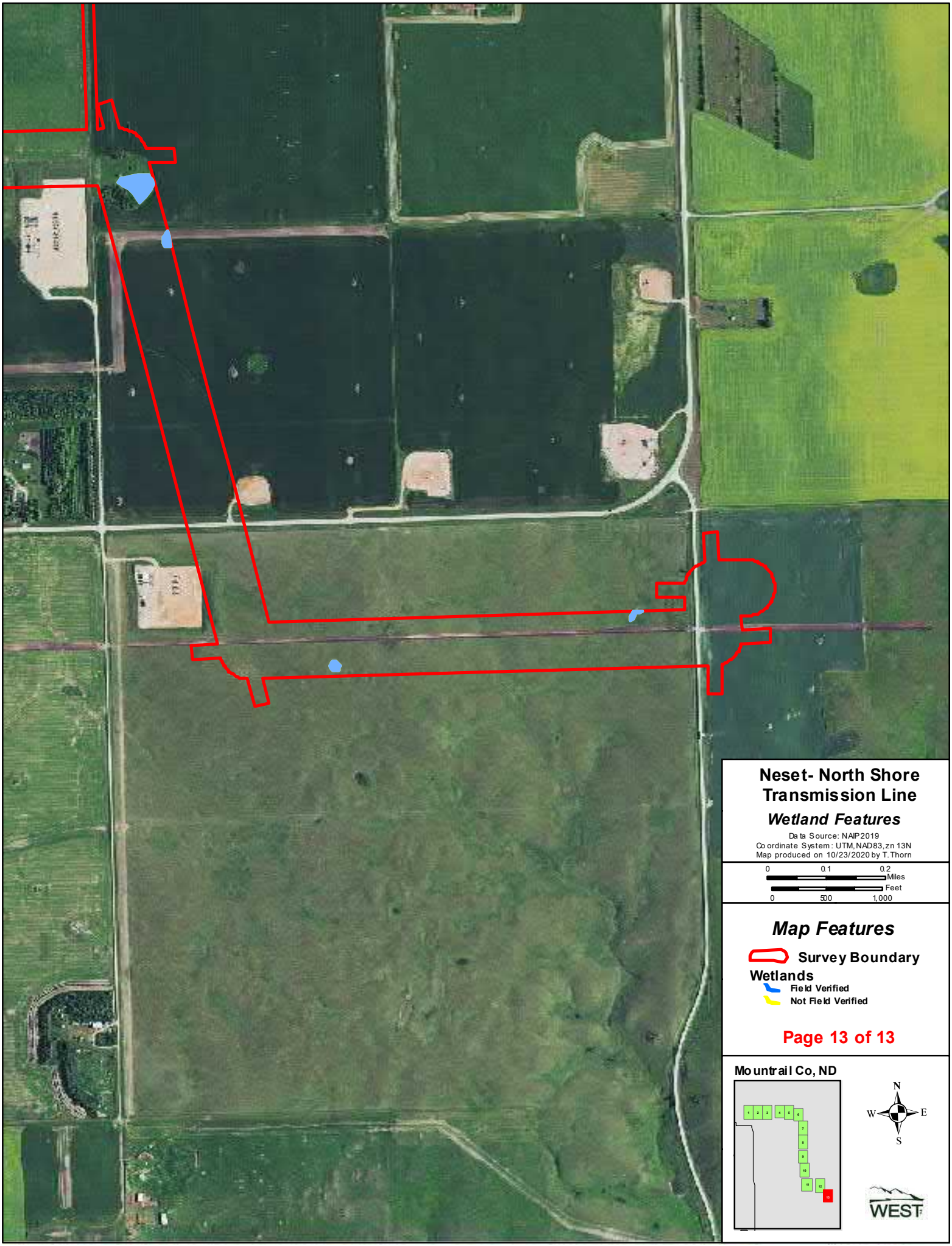

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Appendix E
Dakota Skipper Habitat Assessment Survey Report

Dakota Skipper Habitat Assessment Survey
Neset-North Shore Transmission Line

Prepared for:

Basin Electric Power Cooperative

Prepared by:

Western EcoSystems Technology, Inc.

4007 State Street, Suite 109
Bismarck, North Dakota 58503

October 2020

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1.0 INTRODUCTION

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Mountrail County is known to have occurrence of the Dakota skipper (DASK; Hesperia *dacotae*), a federally threatened butterfly species. The Dakota skipper is a small butterfly (approximate 1-inch wingspan) that lives in high-quality mixed- and tall-grass prairie characterized by rolling hills topography (USFWS 2018b).

BEPC contracted with Western EcoSystems Technology, Inc. (WEST) to conduct a DASK habitat assessment for the Project. WEST conducted a field habitat assessment to identify areas of potential DASK habitat within the Project (Figure 1). This report summarizes the results of the 2020 DASK habitat assessment surveys.

2.0 METHODS

2.1 Background

As detailed in the USFWS 2018 Dakota Skipper – North Dakota Survey Protocol (USFWS 2018a), suitable habitat for the species typically consists of native prairies containing native grasses and diverse forbs. Areas of cropland, non-native haylands, pastures, shrublands, forests, or other grasslands dominated by non-natives do not likely qualify as suitable reproductive habitat. As identified in the USFWS 2018a document, Type A and Type B habitats exist in North Dakota. Type A is "*low-lying, wet-mesic prairie with little topographic relief that occurs near-shore glacial lake deposits*" (USFWS 2018a). Type B habitat "*supports a high species diversity and abundance of native forbs*" and may include rolling terrain (USFWS 2018a). DASK use specific plant species depending on the Type A or Type B classification, but typically include warm season bunch grasses such as little bluestem along with a flowering nectar plant such as prairie coneflower. Detailed descriptions and plant species for each type

of habitat is found in the North Dakota Survey Protocol (USFWS 2018a). WEST biologists used this information to assign habitat types and guide field assessments. Areas dominated by cool season grasses such as smooth brome and Kentucky bluegrass and lacking in native flower plants are not considered reproductive habitat.

During surveys, potential DASK habitat was classified as Reproductive, Foraging, or Dispersal habitat. All other areas were classified as non-suitable. The following habitat characteristics were used to categorize habitat in the Project:

- Reproductive habitat – native grassland including diverse forbs and bunchgrasses.
- Foraging habitat – native grassland including a diversity of forbs, but does not include bunchgrasses.
- Dispersal habitat – grassland habitat lacking adequate forbs or bunchgrasses or previously disturbed grasslands.
- Non-suitable habitat – non-grasslands, cropland, forests, shrubs, or other disturbed areas.

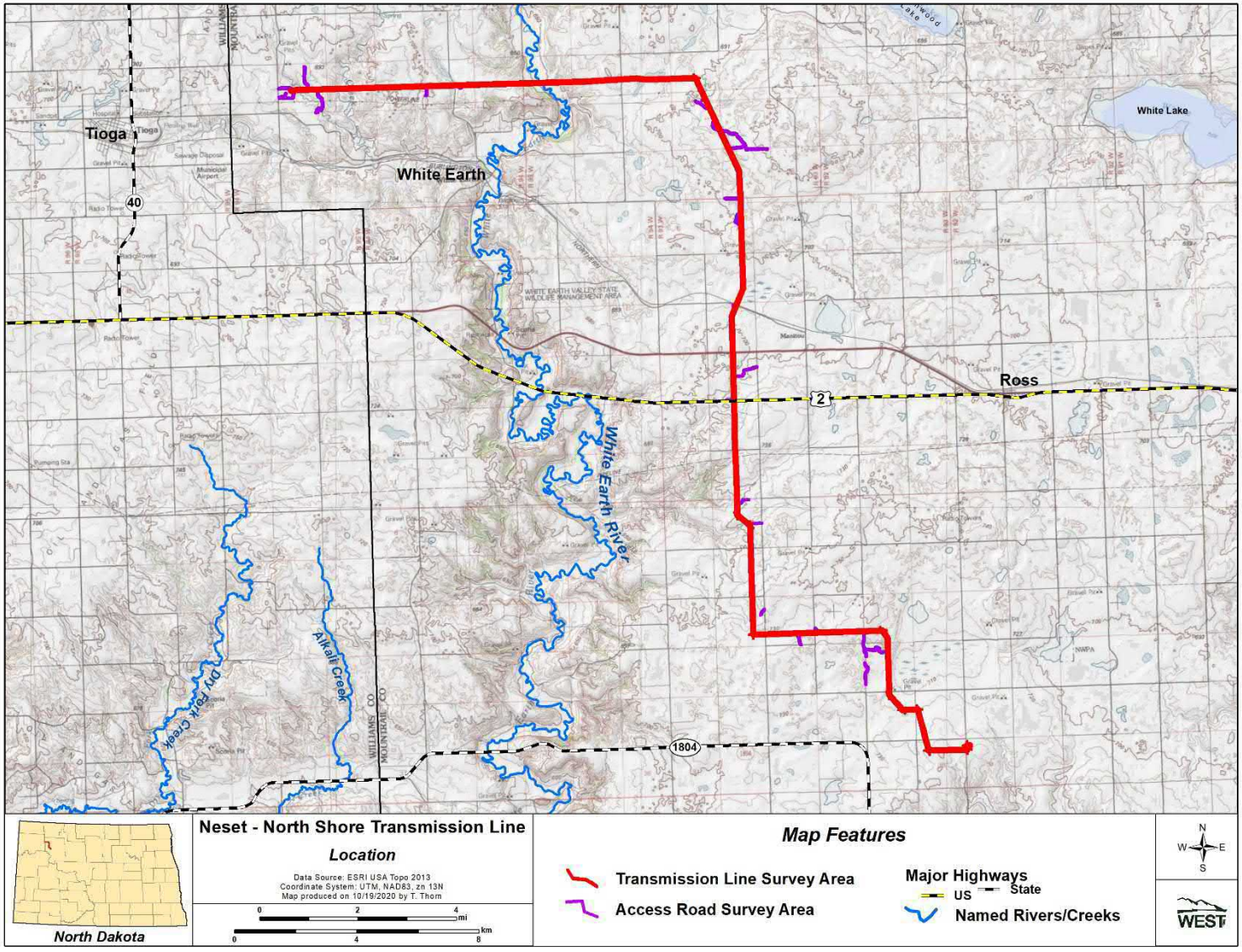


Figure 1. Dakota skipper habitat survey area for the proposed Neset to North Shore Transmission Line Project, Mountrail County, North Dakota.

2.2 Desktop Assessment

Prior to field surveys, a desktop assessment was completed to identify all areas of grassland and to further attempt to assess if current grasslands had been previously broken. Areas identified as cropland or otherwise disturbed were classified as non-suitable habitat and did not receive further considered. Grassland areas were evaluated to determine if there was clear indication of past tillage or disturbance such that the grasslands were not native sod or are otherwise "broken" grasslands. Indications of broken grasslands include tillage patterns, planted tree rows, rock piles, and other similar features. Areas considered broken grasslands as part of the desktop had the status confirmed in the field. All grasslands were surveyed in the field for potential DASK habitat following the definitions above.

2.3 Field Survey

The survey area boundary for the DASK habitat assessment included an area 250 feet either side of the proposed Project centerline as well as pull lanes outside of this area. This is larger than the proposed right-of-way but was included to allow for slight modifications in Project layout but also to include any potential habitat immediately adjacent to the planned right-of-way. Additionally, the survey area include an area 25-50 feet either side of proposed access routes which were existing two tracks. Any improved access routes (e.g., surfaced roads and/or crowned and ditched roads) were not included in the habitat evaluation. Survey efforts took place from July 14-20 and August 17-18, 2020.

Field surveys were conducted throughout the Project to identify and map areas of potential DASK habitat following the descriptions above in Section 2.1. All grassland areas within the Project were assessed for potential DASK habitat. These grassland areas were classified as Reproductive, Foraging, or Dispersal habitat. The biologist conducting the surveys documented the presence of key indicator plant species as identified in the USFWS 2018 Dakota Skipper – North Dakota Survey Protocol. All areas meeting the criteria for DASK Reproductive habitat were mapped using a sub-meter accuracy Global Positioning System (GPS) and a datasheet was completed. GPS-collected data were converted into a digital data layer using ArcGIS (ESRI 2012). Foraging and Dispersal habitats were delineated on field maps and later digitized using ArcGIS (ESRI 2012). All other areas were considered non-habitat. Photographs were taken of each Reproductive habitat area.

3.0 RESULTS

3.1 Desktop Assessment

The desktop habitat mapping estimated that there was approximately 1,618 acres within the 26.5-mile long transmission line survey area. Of this, approximately 960 acres were mapped as grasslands within 111 polygons. This included 49 polygons of broken grasslands (approximately 172 ac) and 62 polygons of unbroken grassland (approximately 788 ac). The remaining areas (approximately 658 ac) were tilled agriculture or other land use types.

Additionally there were 19.6 miles of access roads outside of the transmission line survey area (roads within the transmission line survey were included in the information above). Of the non-maintained or crowned and ditched roads that crossed through grasslands, there was a total of approximately 79 acres within the access road survey area, including 10 polygons (approximately 21 ac) of broken grassland and 24 polygons (approximately 58 ac) of unbroken grassland.

Both the broken and unbroken grasslands were evaluated for potential DASK habitat features.

3.2 Field Survey

Below is a summary of the amounts of Reproductive, Foraging, and Dispersal Habitats mapped within the Project survey area.

3.2.1 Reproductive Habitat

No areas of potential DASK Reproductive habitat were located and mapped within the survey areas along the transmission line or roads (Appendix A).

3.2.2 Foraging Habitat

No areas of potential DASK Foraging habitat were located and mapped within the survey areas along the transmission line or roads (Appendix A).

3.2.3 Dispersal Habitat

A total of 100 polygons (946 ac) within the transmission line survey area and 34 polygons (79 ac) within the access road survey area were mapped as the general Dispersal habitat category (Appendix A). This includes both broken and unbroken grasslands per the definition of Dispersal habitat. Dispersal habitat areas include broken and unbroken grasslands dominated by non-native grasses or native cool season grasses and lacked adequate forbs for foraging.

The remaining 11 grassland polygons identified during the desktop assessment were determined to be Non-suitable habitat given level of current disturbance as well as weedy, non-native vegetation present.

4.0 CONCLUSION

The Project occurs within Mountrail County, North Dakota, a county known to contain DASK populations; however, there are no publically available records of DASK occurring within the Project area or immediate vicinity. The closest designated critical habitat to the Project area is 13 miles to the southwest.

There are areas of unbroken and broken grasslands crossed by the Project. No Reproductive or Foraging habitat were located during 2020 surveys within the survey area. A total of 134 polygons of grasslands were identified as potential Dispersal habitat based on lack of adequate forbs or bunchgrasses or being previously broken grasslands. Temporary impacts to these areas through construction of the Project are unlikely to impact the species.

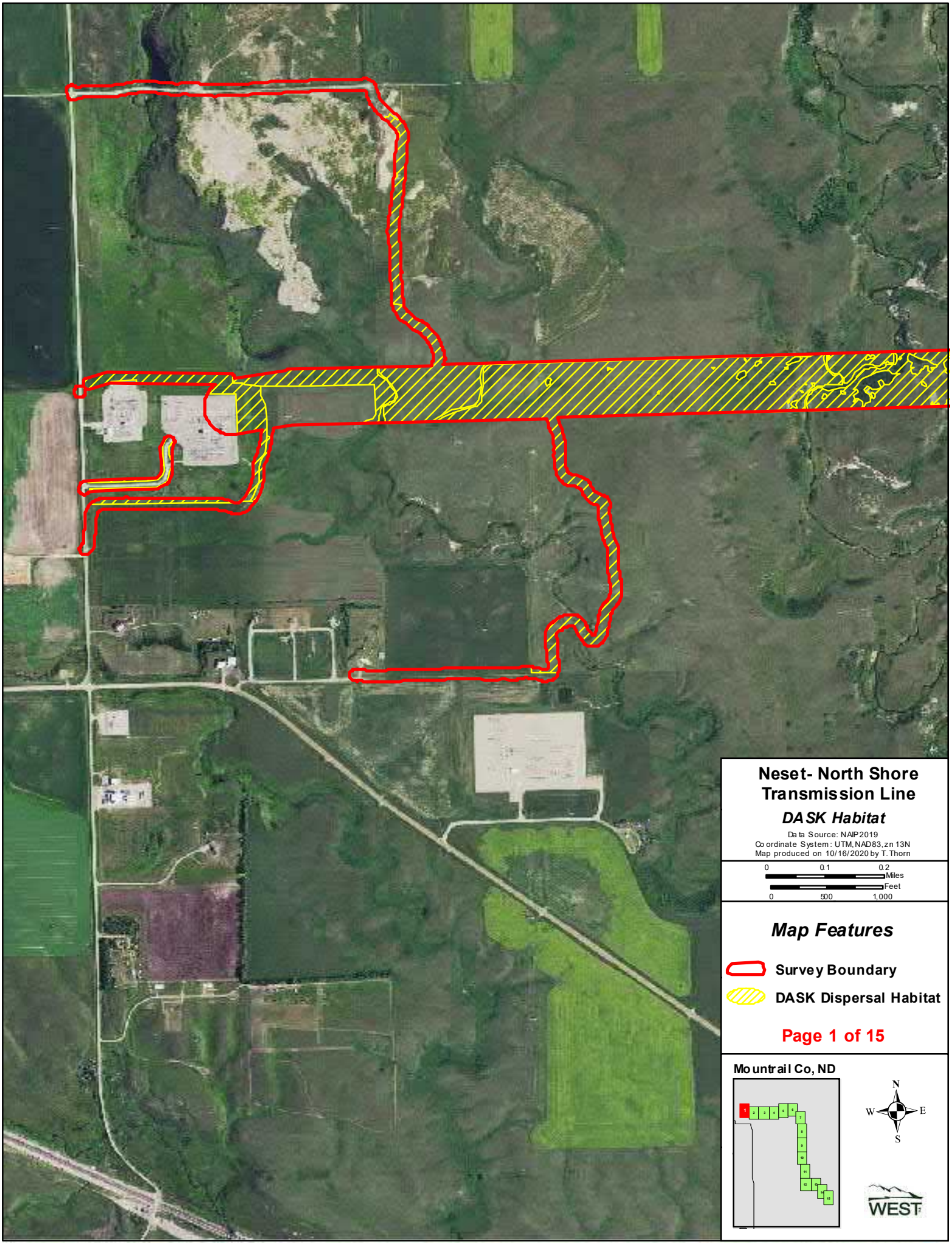
5.0 LITERATURE CITED

ESRI. 2012. Data and Maps for ArcGIS 10.1. Environmental Systems Research Institute (ESRI), producers of ArcGIS software. Redlands, California. Information online: https://www.esri.com/en-us/arcgis/products/arcgis-online/resources

US Fish and Wildlife Service (USFWS). 2018a. 2018 Dakota Skipper (*Hesperia dacotae*) North Dakota Survey Protocol. USFWS, Ecological Services, North Dakota Field Office. Available online: https://www.fws.gov/mountain-prairie/es/protocols/2018_FINAL%20Dakota%20Skipper%20Survey%20Protocol_4202018.pdf

US Fish and Wildlife Service (USFWS). 2018b. Dakota Skipper (Hesperia dacotae) Report on the Species Status Assessment Version 2 - September 2018. Available online: https://www.fws.gov/midwest/endangered/insects/dask/pdf/Species_Status_Assessment_Dakota_Skipper_September_2018.pdf

Appendix A. Map Book for Dakota Skipper Habitat Types Observed in the Unbroken Grasslands Surveyed for the proposed Neset to North Shore Transmission Line Project, Mountrail County, North Dakota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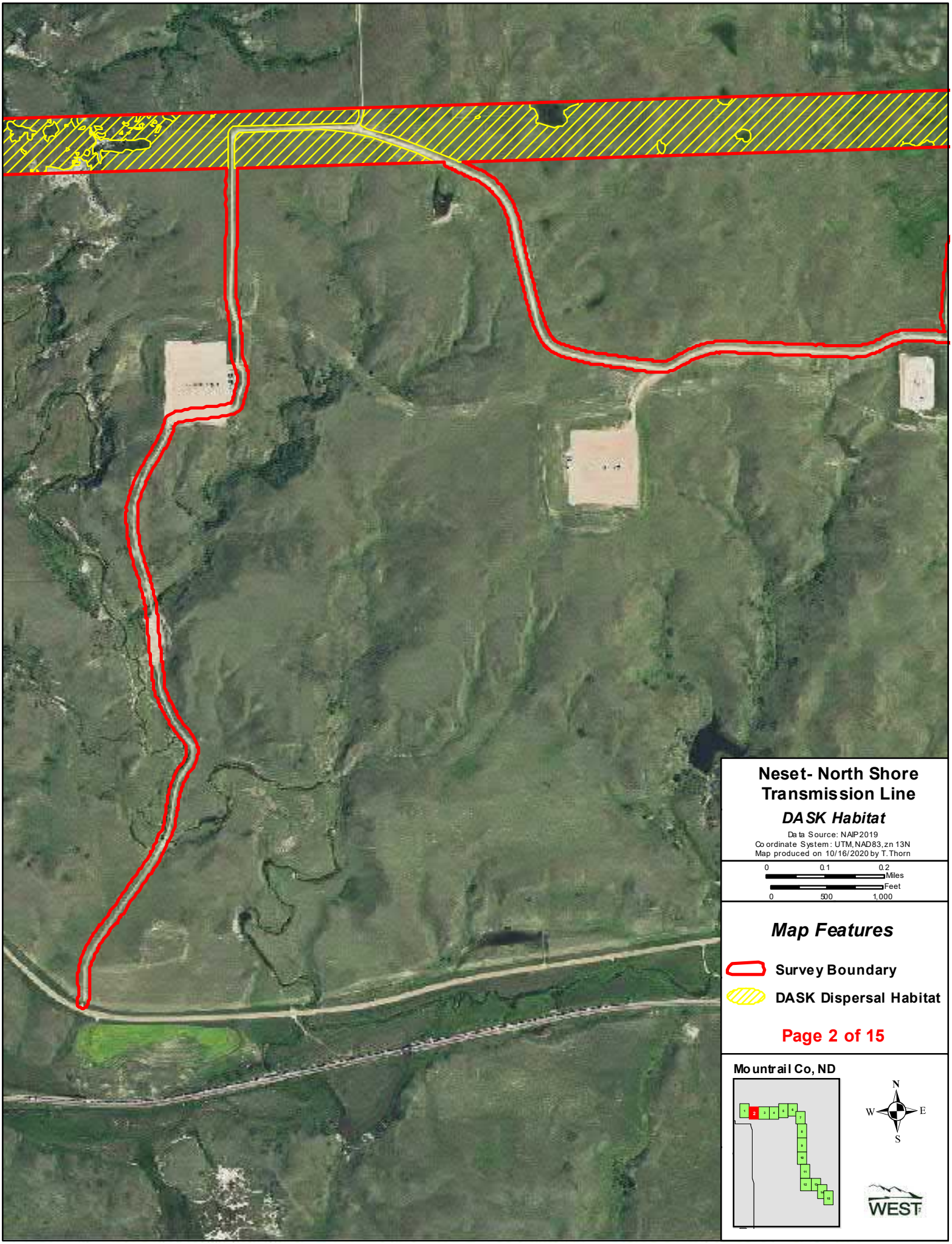
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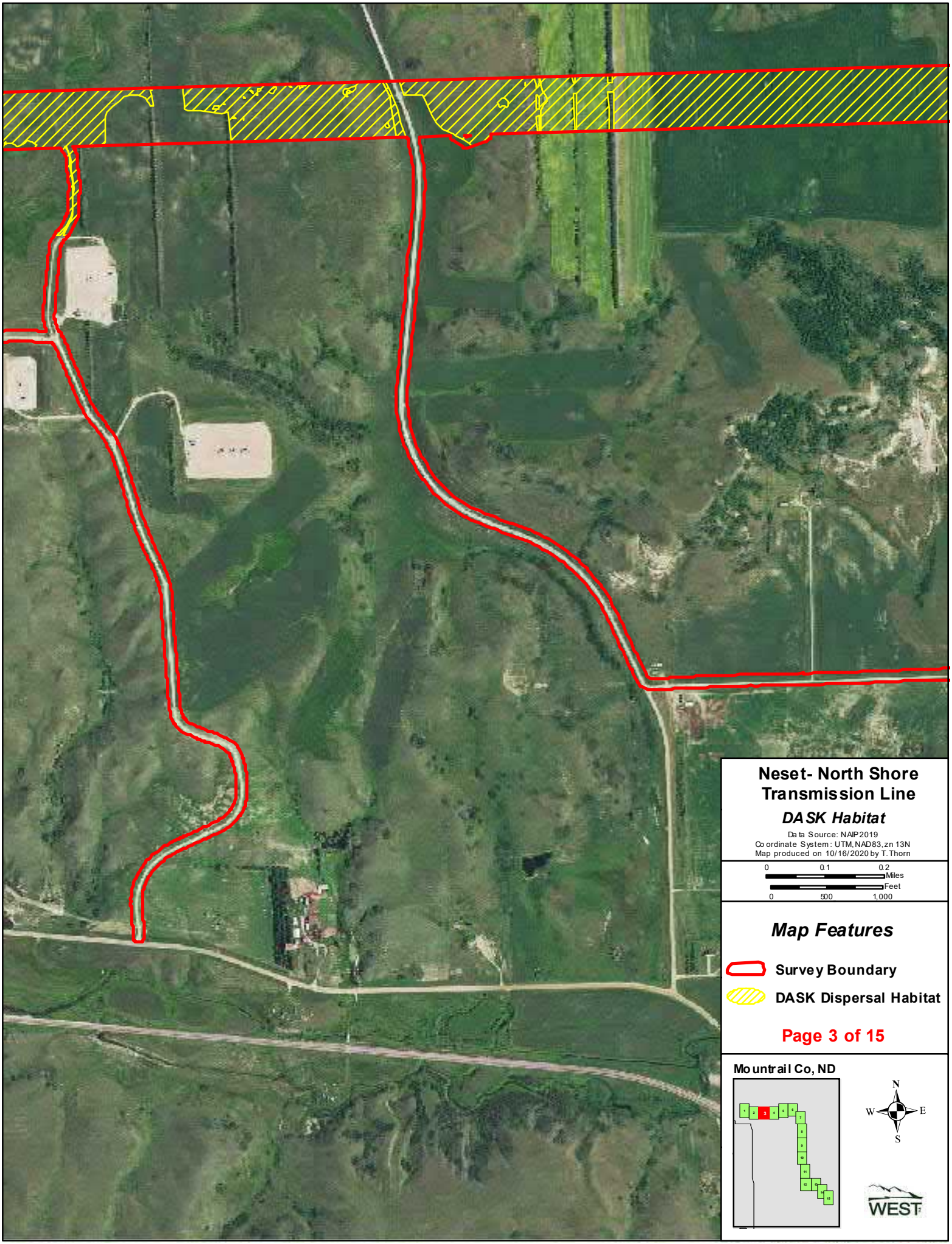
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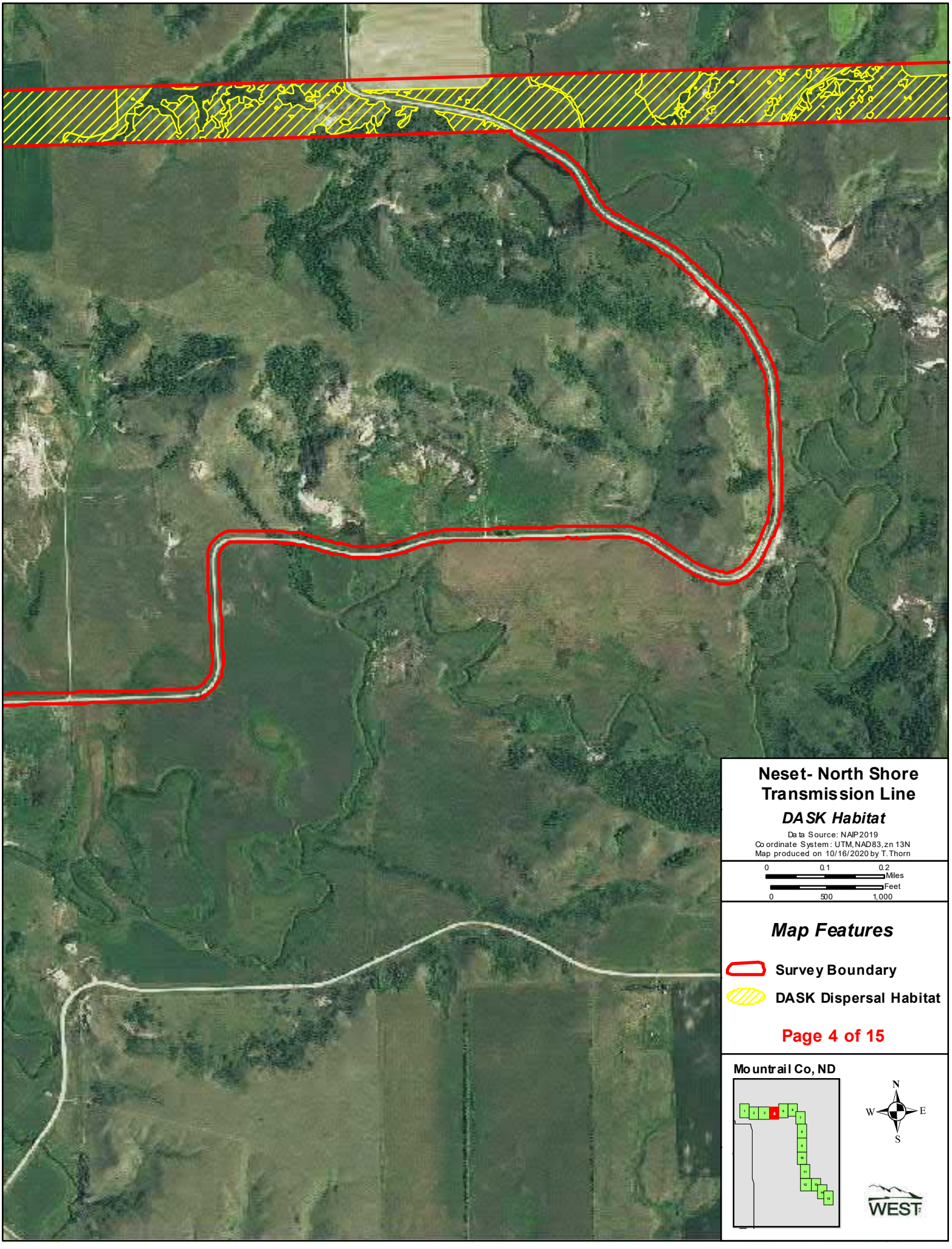

Neset- North Shore Transmission Line

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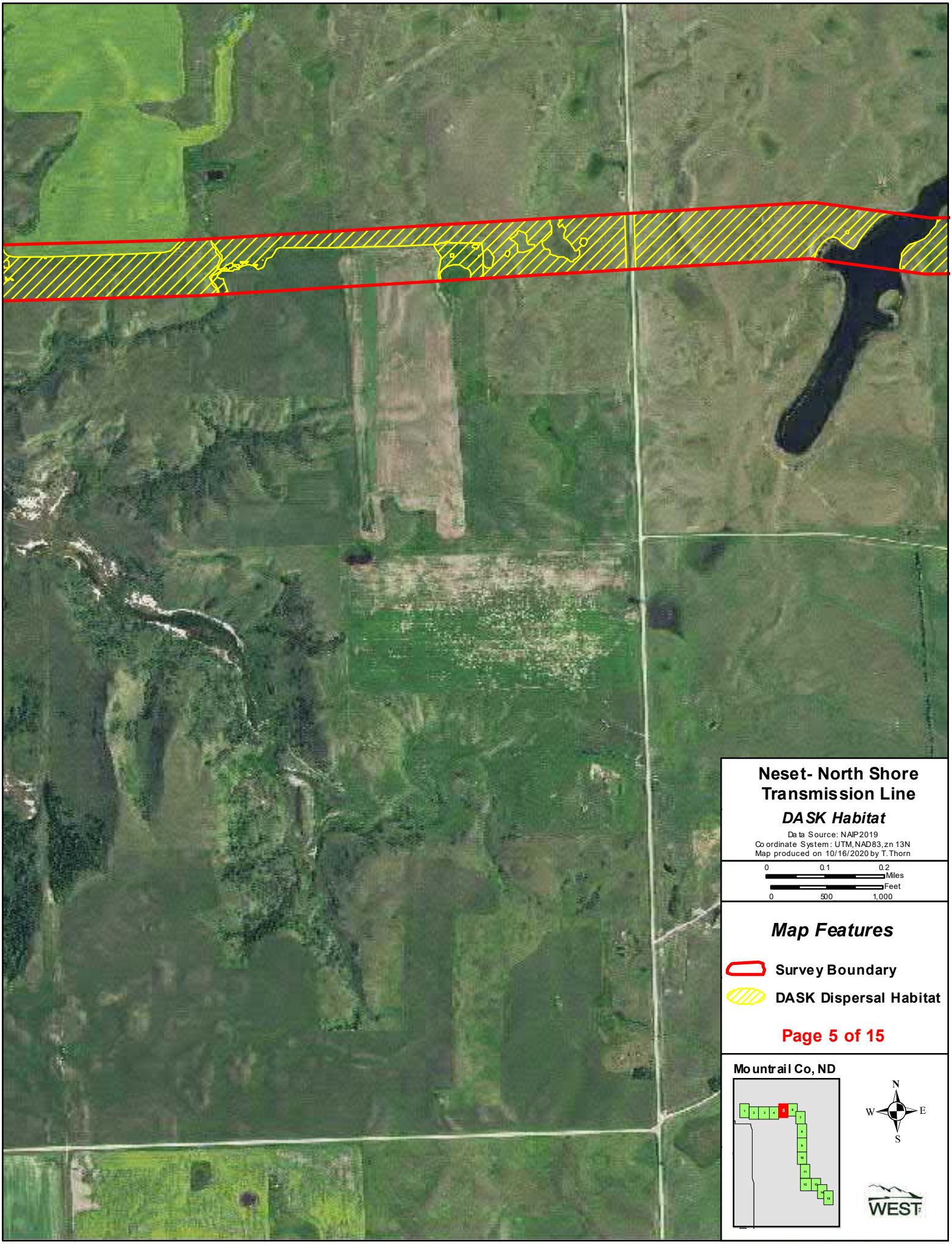
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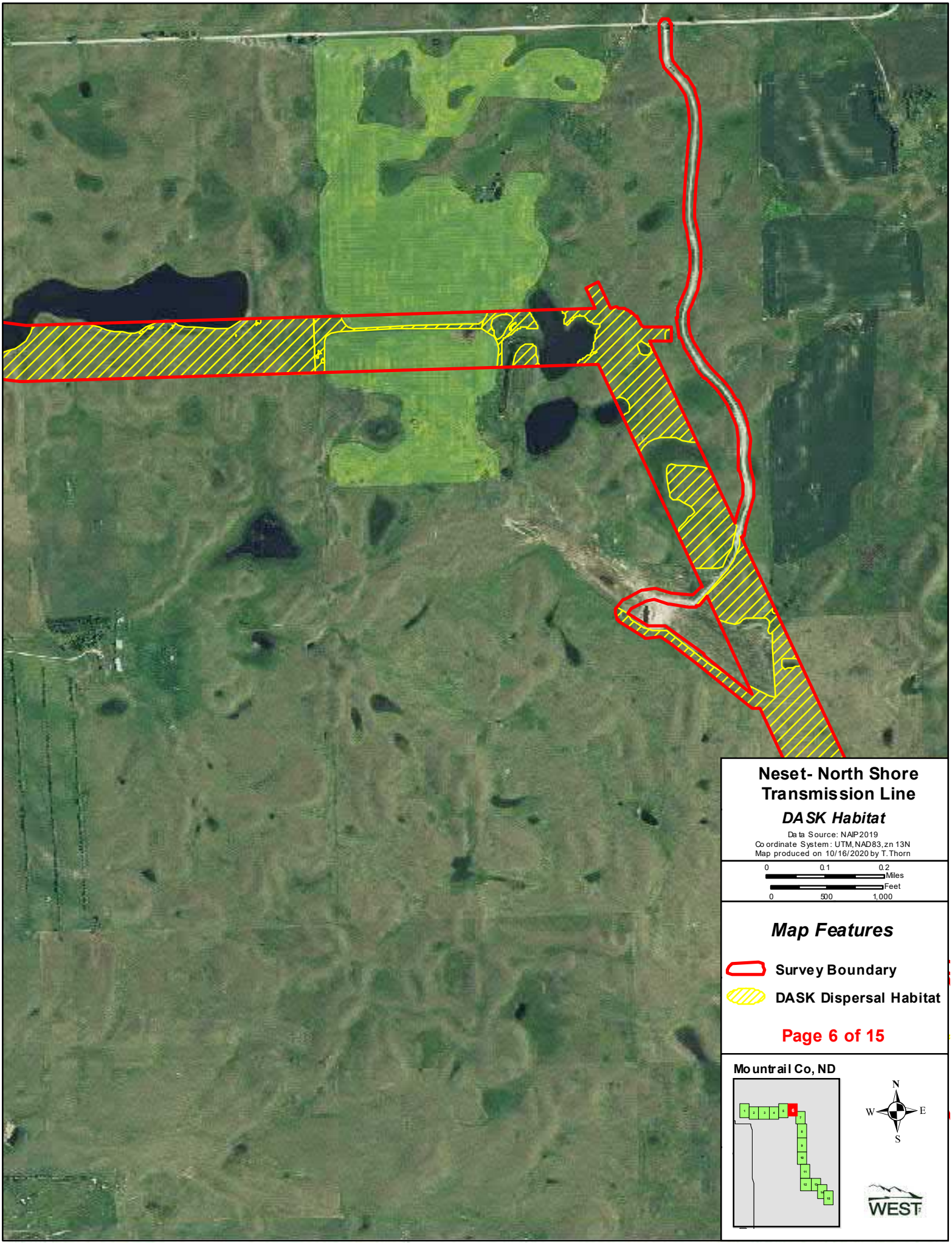
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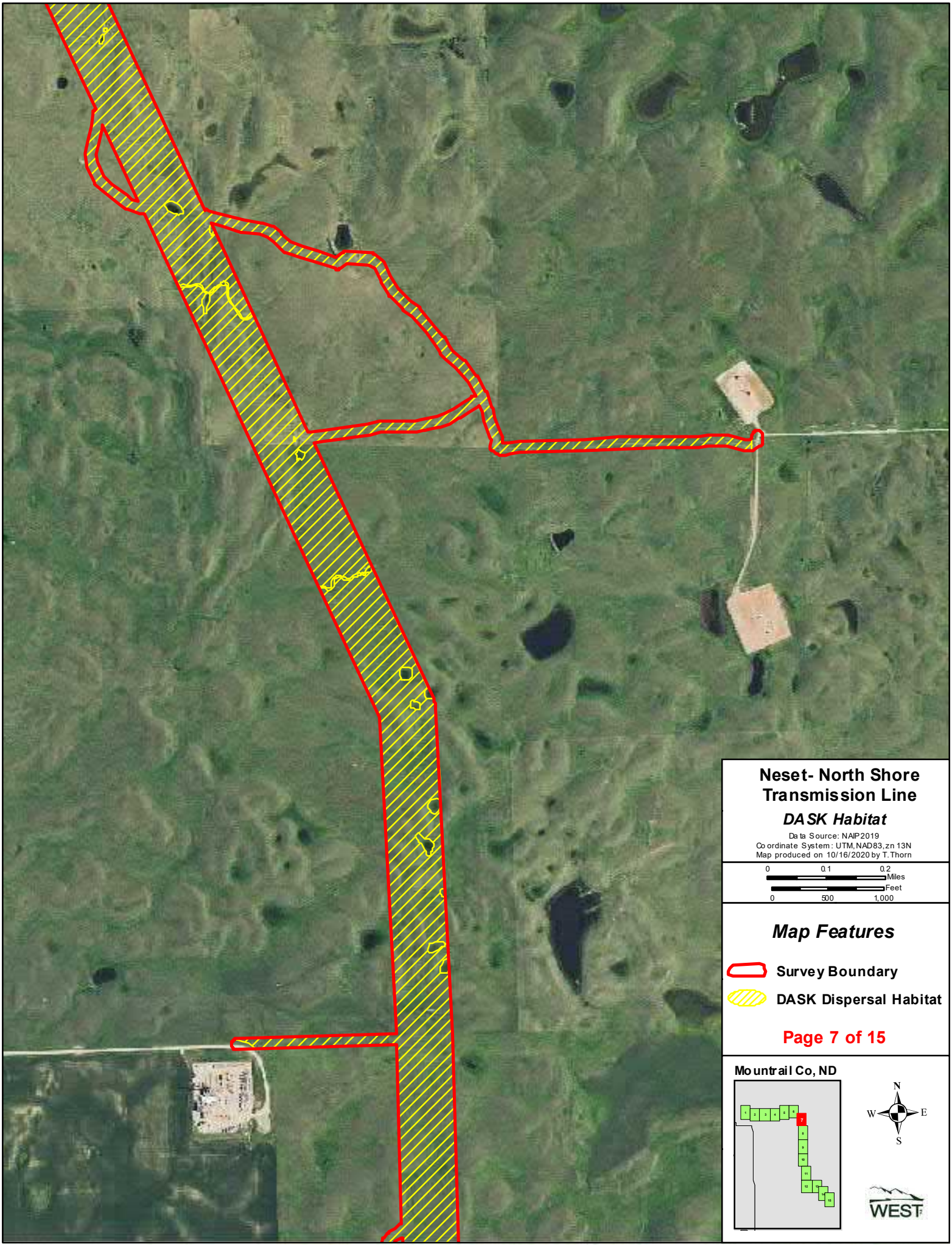
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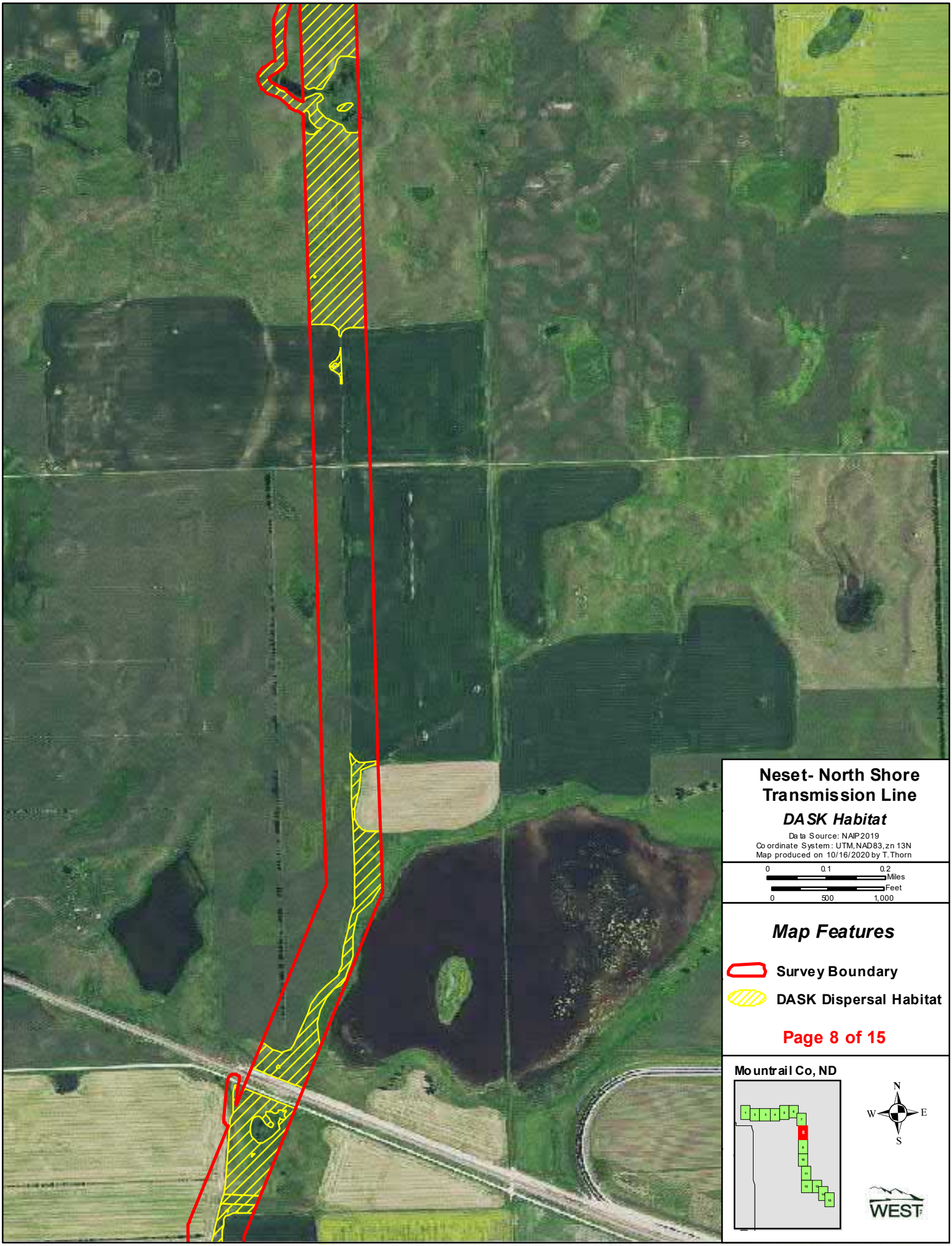
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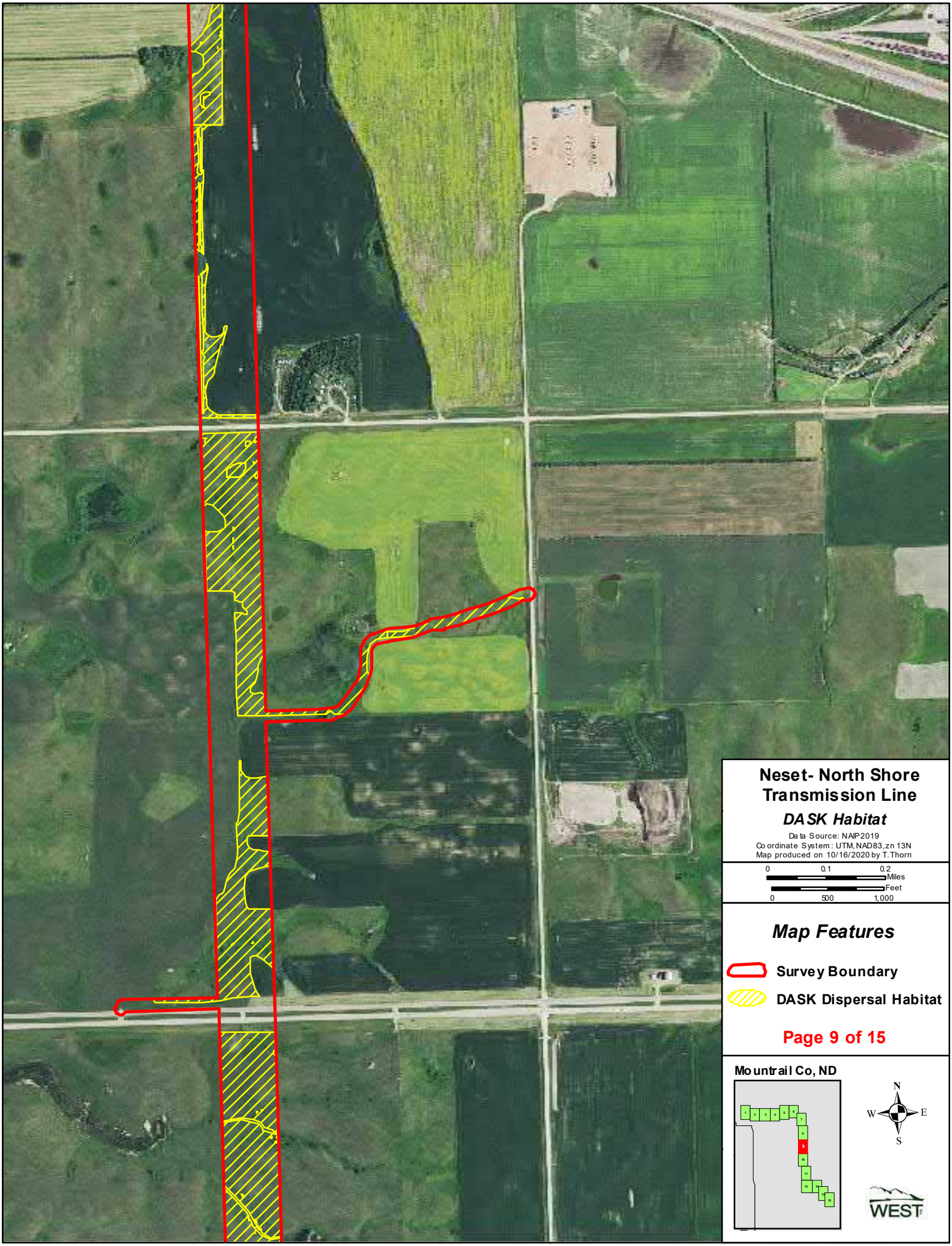
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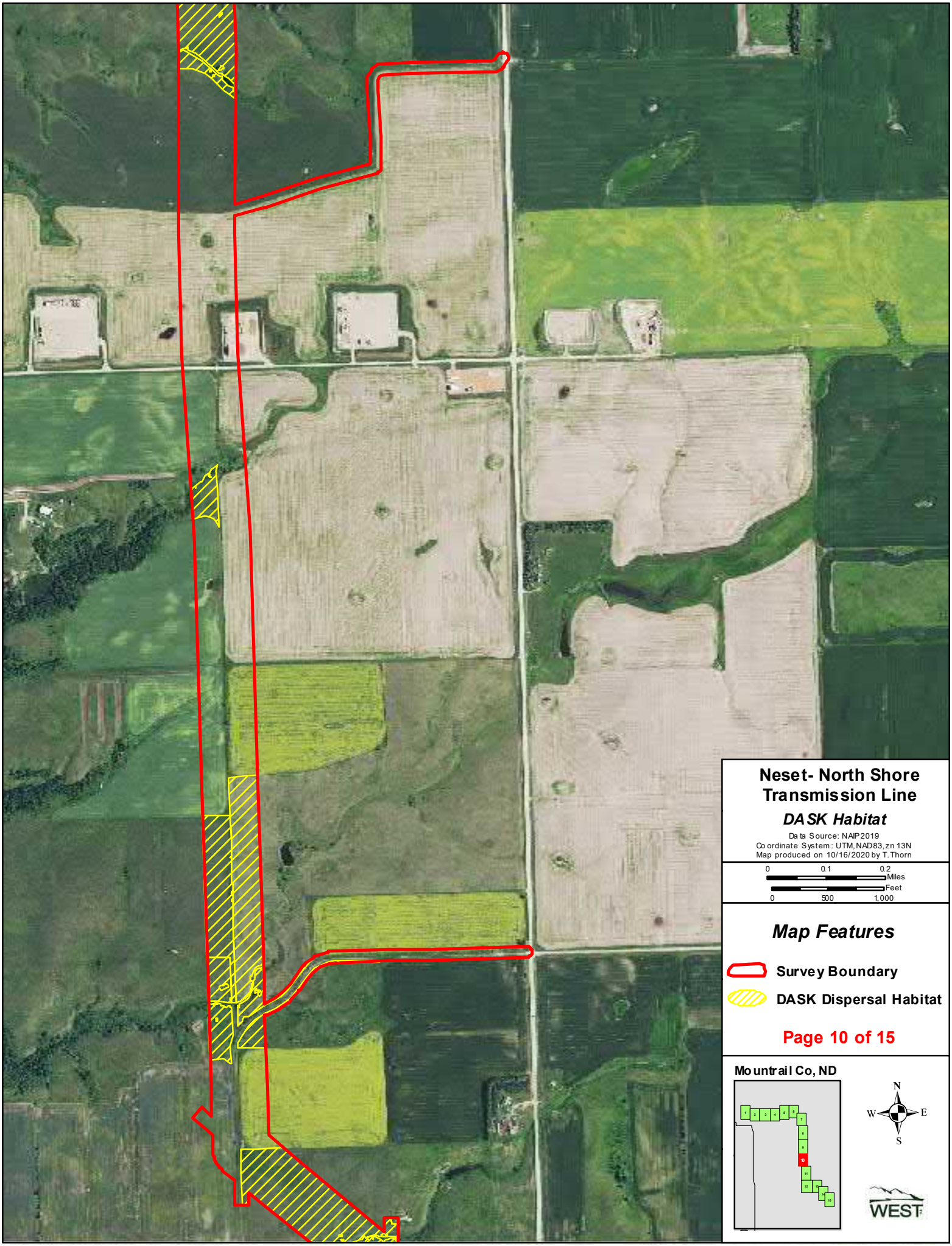
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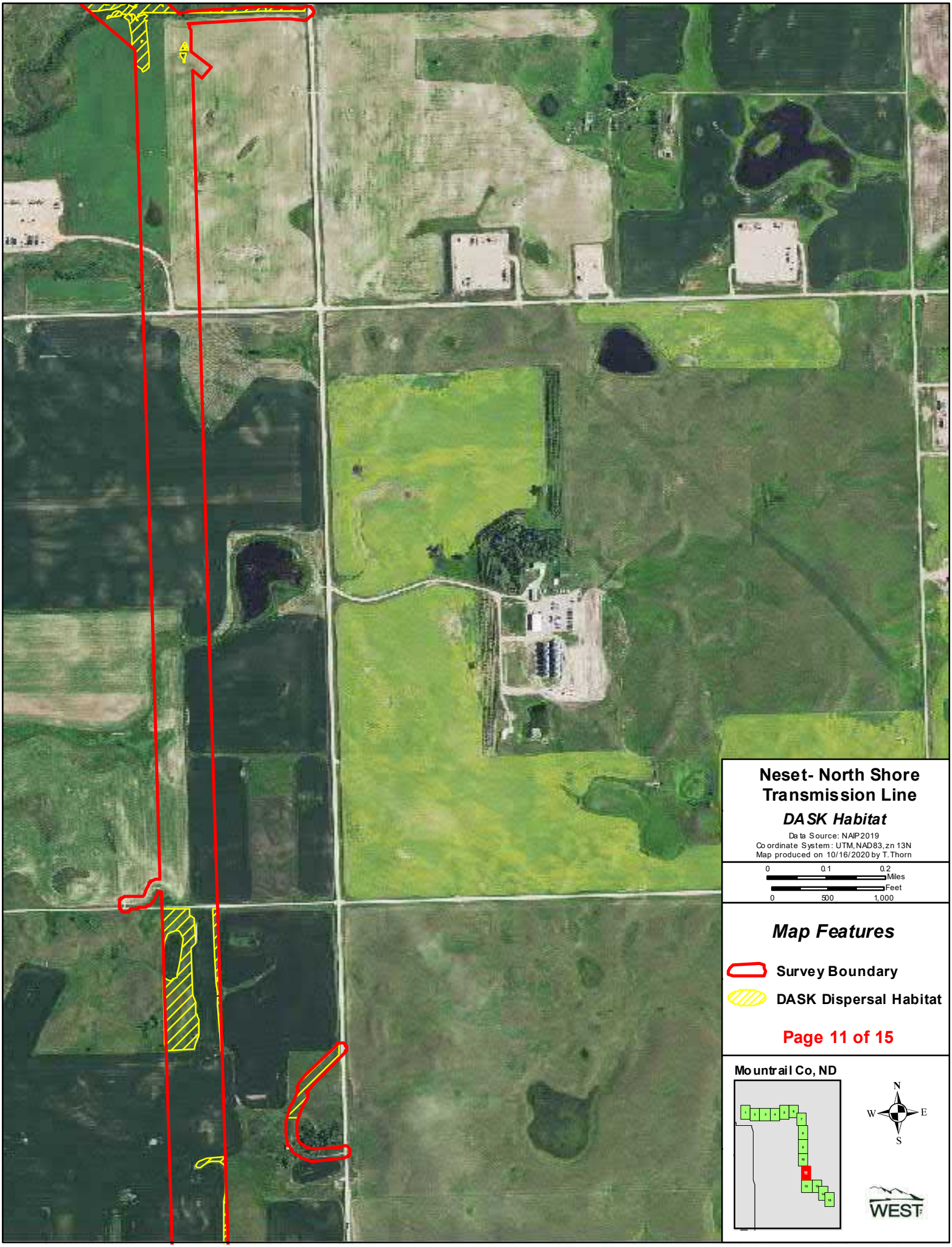
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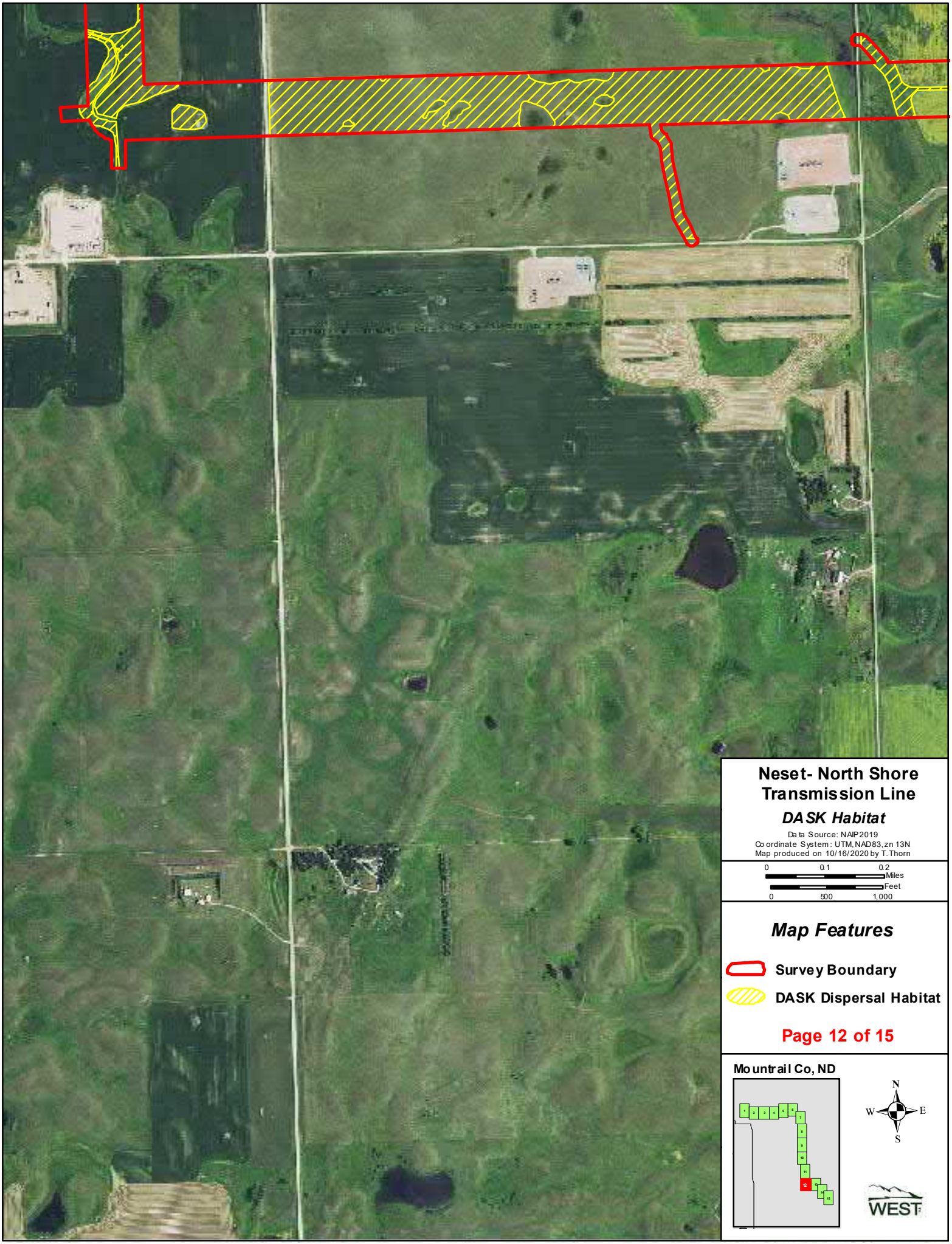
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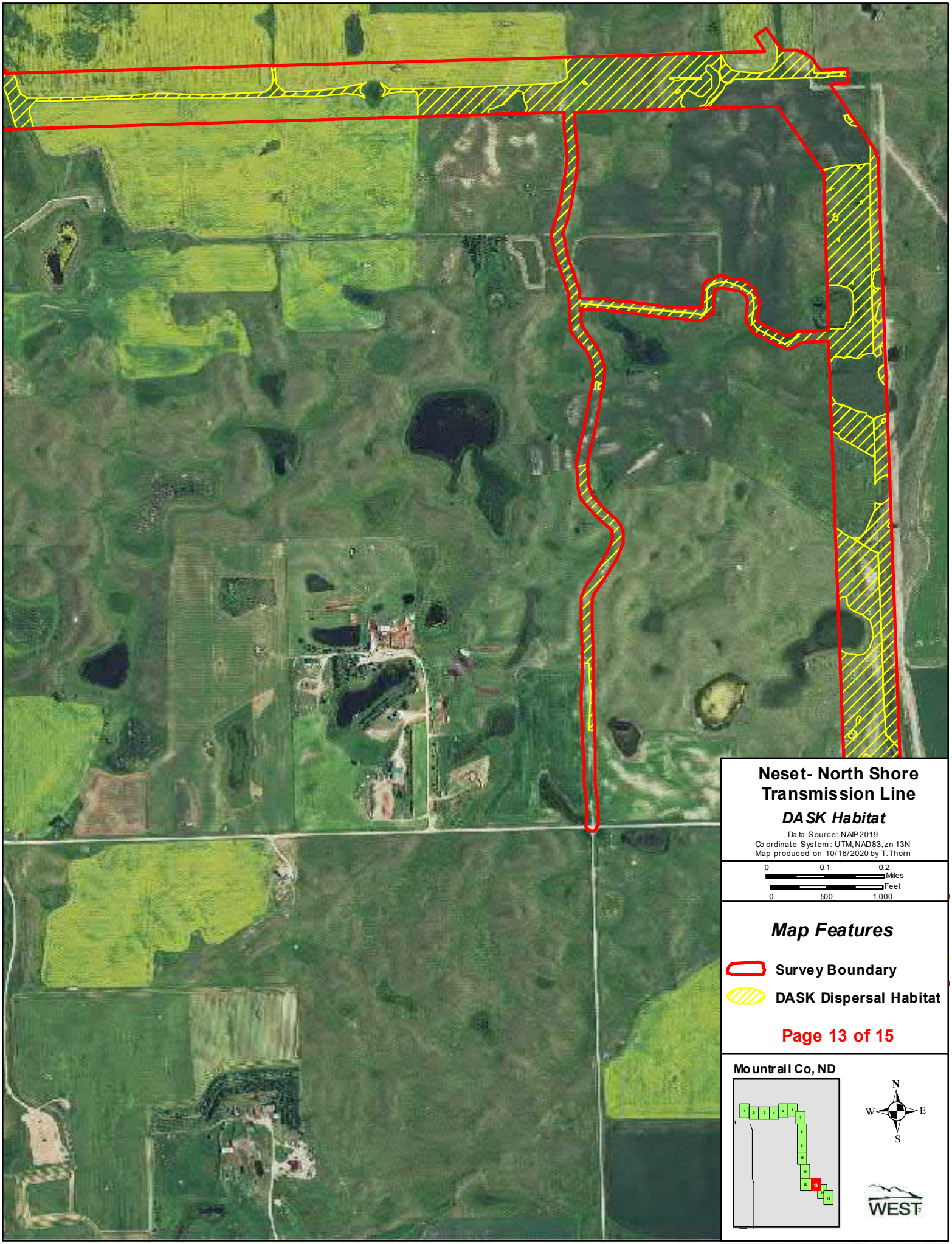

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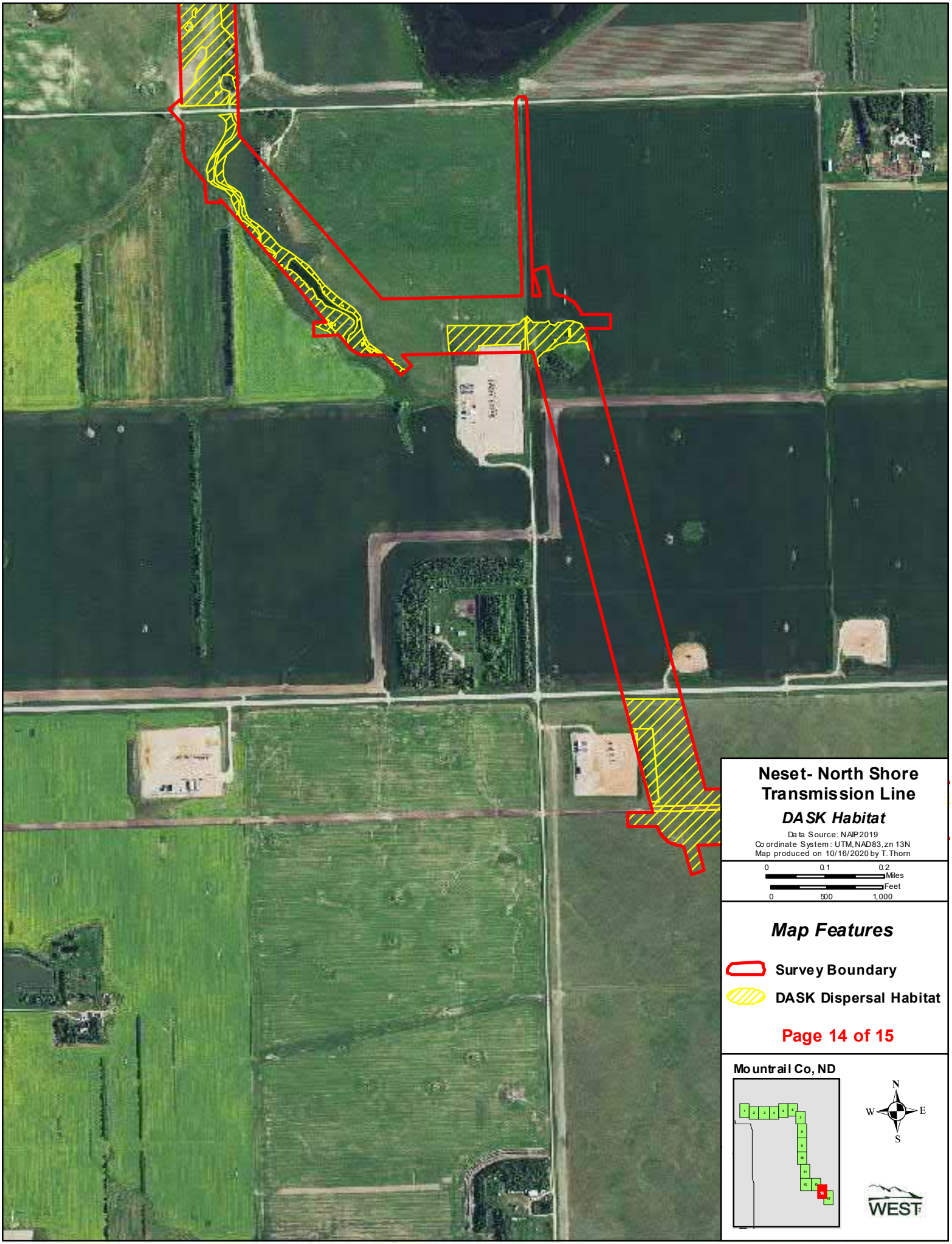
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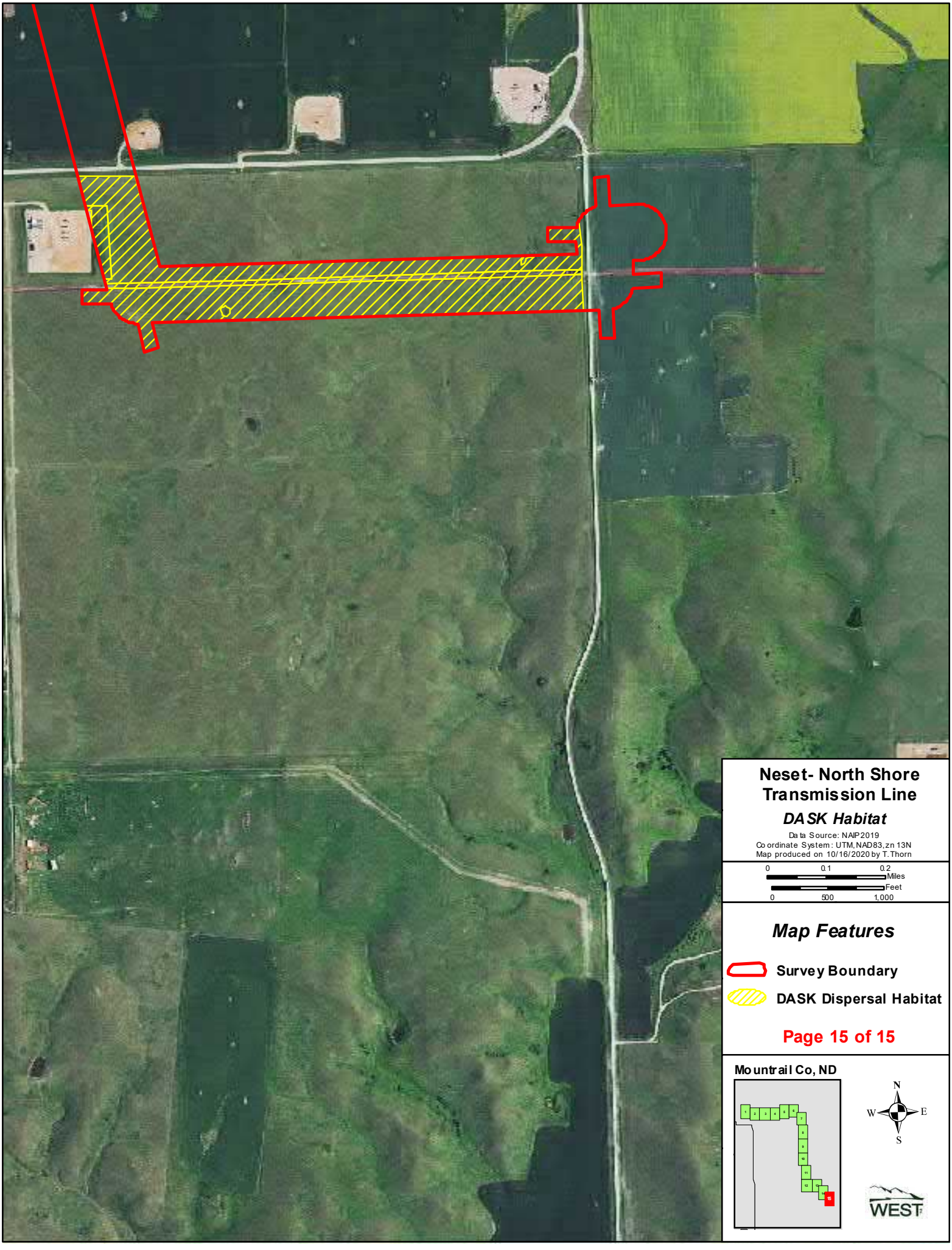
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Appendix F
Agency Notification Letters and Responses

Agency Notification Template

AECOM
1000 East Calgary Ave
Suite 1
Bismarck, ND 58503
aecom.com

(701) 221-4148 tel
(701) 221-4155 fax

August 13, 2020

Subject: Neset to North Shore 230-kilovolt (kV) Transmission Line Project, Mountrail County, North Dakota

Basin Electric Power Cooperative (Basin Electric) is proposing to develop the Neset to North Shore 230-kilovolt (kV) Transmission Line (Project) in Mountrail County, North Dakota. Basin Electric plans to submit to the North Dakota Public Service Commission a consolidated application for a Certificate of Corridor Compatibility and Transmission Facility Route Permit for the Project and complete construction in 2022.

The Project would be approximately 26.5 miles long and connect the existing Neset Substation located near Tioga, North Dakota, to the proposed North Shore Substation located approximately seven miles south of Ross, North Dakota. The single-circuit transmission line would be constructed using steel single-pole self-supporting structures within a 125-150-foot-wide right-of-way (ROW). Typical transmission structures would range in height from 70 to 115 feet, with span distances ranging from approximately 350 feet to 1,100 feet depending on topography. Taller structures would be used for crossing existing distribution and transmission lines or where unusual terrain exists. In special circumstances, steel H-frame structures may be used when span and/or strength requirements preclude the use of single-pole structures.

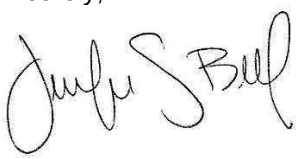
The Project is needed to address potential network reliability and stability issues identified in a recent delivery point network study conducted by Southwest Power Pool, Inc. (SPP), the Regional Transmission Operator. The study identified potential thermal and voltage violations resulting from load addition and the need for a new delivery point for Mountrail Williams Electric Cooperative.

Per Section 69-06-01-05 of the North Dakota Administrative Code, the purpose of this letter is to provide notification of the Project and to seek your comments. Copies of all correspondence received in response to this letter will be included with the application. Therefore, Basin Electric respectfully requests your response within 30 days of receipt of this letter, and if no reply is received it will be assumed that you have no comment on the Project. Basin Electric requests the consideration of a one-mile-wide Study Area for a proposed and alternate transmission line route shown on the attached map (Figure 1). The Study Area encompasses the following legal locations.

County	Township	Range	Sections
Proposed Route Study Area			
Mountrail	155 N	92 W	30, 31
	155 N	93 W	4, 5, 6, 8, 9, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 35, 26
	156 N	93 W	4, 5, 8, 9, 16, 17, 18, 19, 20, 29, 30, 31, 32
	157 N	93 W	16, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, 34, 35
	157 N	94 W	19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29
Alternative Route Study Area			
Mountrail	155 N	92 W	5, 6, 7, 8, 17, 18, 19, 20, 29
	155 N	93 W	1, 12
	156 N	92 W	30, 31, 32
	156 N	93 W	22, 25, 26, 27, 28, 33, 34, 35, 36

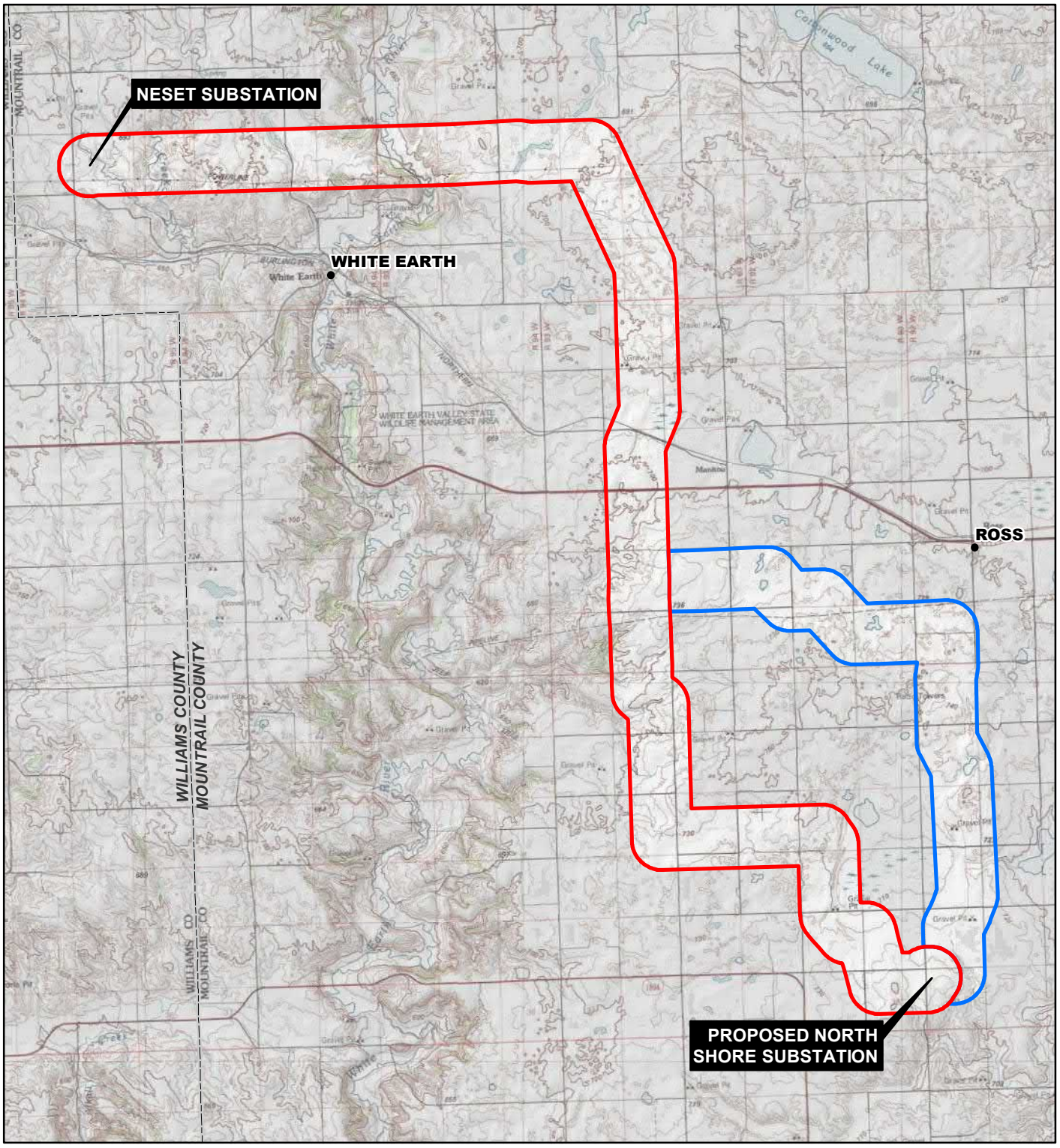
If you have questions or need further information, please contact Jennifer Bell at (303) 709-1406 or jennifer.bell@aecom.com. Comments can be sent via email or to the address below.

Sincerely,



Jennifer Bell
Environmental Project Manager
AECOM
1000 East Calgary Avenue, Suite 1
Bismarck, ND 58503
jennifer.bell@aecom.com

Enclosure:
Figure 1 – Project Study Area Map



Neset to North Shore
230-kV Transmission Line Project
Mountrail County, North Dakota

Figure 1
Project Study Area

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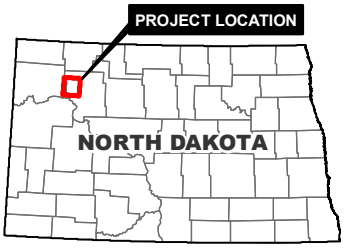
Legend

- Proposed Route Study Area
- Alternative Route Study Area
- County Boundary
- City/Town



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State Historical Society of North Dakota

August 31, 2020

Ms. Jennifer Bell
AECOM
1000 East Calgary Ave, Suite 1
Bismarck, ND 58501

ND SHPO Ref.: 20-5998, Neset to North Shore 230-kilovolt (kV) Transmission Line Project, Mountrail County, North Dakota in portions of [T155N R92W Sections 5-8, 17-20 & 29-31] [T155N R93W Sections 1, 4-6, 8, 9, 12, 14-17, 20-27, 35 & 36] [T156N R92W Sections 30-32] [T156N R93W Sections 4, 5, 8, 9, 16-20, & 25-36] [T157N R93W Sections 16, 19-23, 26-30, 34 & 35] & [T157N R94W Sections 19-29]

Dear Ms. McCarthy,

We reviewed ND SHPO Ref.: 20-5998, Neset to North Shore 230-kilovolt (kV) Transmission Line Project, Mountrail County, North Dakota in portions of [T155N R92W Sections 5-8, 17-20 & 29-31] [T155N R93W Sections 1, 4-6, 8, 9, 12, 14-17, 20-27, 35 & 36] [T156N R92W Sections 30-32] [T156N R93W Sections 4, 5, 8, 9, 16-20, & 25-36] [T157N R93W Sections 16, 19-23, 26-30, 34 & 35] & [T157N R94W Sections 19-29] and we concur with the need for a Class III Cultural Resource Inventory of the APE and look forward to reading the report.

Thank you for the opportunity to review this project. Please include the ND SHPO Reference number listed above in further correspondence for this specific project. If you have any questions please contact Lisa Steckler, Historic Preservation Specialist at (701) 328-3577 or lsteckler@nd.gov

Sincerely,

for William D. Peterson, PhD
State Historic Preservation Officer
(North Dakota)

20-5998

North Dakota Department of Environmental Quality

NORTH Dakota | Environmental Quality
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September 2, 2020

Jennifer Bell
Environmental Project Manager
AECOM
1000 East Calgary Avenue, Suite 1
Bismarck, ND 58503

Re: Neset to North Shore 230 kV transmission line project in Mountrail County

Dear Ms. Bell:

The North Dakota Department of Environmental Quality has reviewed the information concerning the above-referenced project received at the department on August 17, 2020 with respect to possible environmental impacts.

This department believes that environmental impacts from the proposed construction will be minor and can be controlled by proper construction methods. With respect to construction, we have the following comments:

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.

2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.

3. Projects disturbing one or more acres are required to have a permit to discharge stormwater runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the stormwater permit may be obtained from the department's website or by calling the Division of Water Quality (701-328-5210). Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local stormwater management considerations are addressed.

4. The proposed construction project overlies the White Earth glacial drift aquifer, which is a sensitive groundwater area. Care should be taken to avoid spills of any materials that may have an adverse effect on groundwater quality. All spills must be immediately reported to this department and appropriate remedial actions performed.

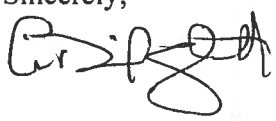
5. All solid waste materials must be managed and transported in accordance with the state's solid and hazardous waste rules. Appropriate efforts to reduce, reuse and/or recycle waste materials are strongly encouraged. As appropriate, segregation of inert waste from non-inert waste can generally reduce the cost of waste management. Further information on waste management and recycling is available from the department's Division of Waste Management at (701) 328-5166.

These comments are based on the information provided about the project in the above-referenced submittal. The U.S. Army Corps of Engineers may require a water quality certification from this department for the project if the project is subject to their Section 404 permitting process. Any additional information which may be required by the U.S. Army Corps of Engineers under the process will be considered by this department in our determination regarding the issuance of such a certification.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,



L. David Glatt, P.E., Director
North Dakota Department of Environmental Quality

LDG:dlp
Attach.

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Construction and Environmental Disturbance Requirements

The following are the minimum requirements of the North Dakota Department of Environmental Quality for projects that involve construction or environmental disturbance in or near waters of the State of North Dakota. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect waters of the state. All projects must be constructed to minimize the loss of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of soil and sediment loss using erosion and sediment controls. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, and land resources must be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction must be managed to minimize impacts to aquatic systems. Follow safe storage and handling procedures to prevent the contamination of water from fuel spills, lubricants, and chemicals. Stream bank and stream bed disturbances must be controlled to minimize slit movement, nutrient upsurges, plant dislocations, and any physical, chemicals, or biological disruption. The use of pesticides or herbicides in or near surface waters is allowed under the department's pesticide application permit with notification to the department.

Fill Material

Any fill material placed below the ordinary high-water mark must be free of topsoil, decomposable materials, and persistent synthetic organic compounds; including, but not limited to, asphalt, tires, treated lumber, and construction debris. The department may require testing of fill materials. All temporary fill must be removed. Debris and solid wastes must be properly disposed or recycled. Impacted areas must be restored to near original condition.

918 East Divide Avenue | Bismarck ND 58501-1947 | Fax 701-328-5200 | deq.nd.gov

Director's Office 701-328-5150
Division of Air Quality 701-328-5188
Division of Municipal Facilities 701-328-5211
Division of Waste Management 701-328-5166
Division of Water Quality 701-328-5210
Division of Chemistry 701-328-6140 2635 East Main Ave Bismarck ND 58501

North Dakota Parks and Recreation Department

NORTH Dakota | Parks & Recreation
Be Legendary.

September4, 2020

Jennifer Bell
AECOM
1000 East Calgary Ave., Suite 1
Bismarck, NS 58503

Re: Neset to North Shore 230-kilovolt Transmission Line Project – Mountrail County, North Dakota

Dear Mr. Doerr:

The North Dakota Parks and Recreation Department has reviewed the above referenced proposed Basin Electric Power Cooperative transmission line project in Mountrail County, North Dakota.

NDPRD's scope of authority and expertise covers properties that our agency owns, leases or manages, state-wide properties that are protected under Section 6(f) of the Land and Water Conservation Fund (LWCF) and rare plants and ecological communities established through the Natural Heritage Program. The project as defined does not affect state lands under NDPRD's jurisdiction.

The North Dakota Natural Heritage biological conservation database has reviewed the project to determine if any current or historical plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the project area. Based on this review, we have no known rare species or significant ecological communities documented within or immediately adjacent to the project site.

We appreciate your commitment to rare plant, animal and ecological community conservation, management, and inter-agency cooperation to date. For additional information, please contact me at (701) 220-3377 or kgduttenhefner@nd.gov Thank you for the opportunity to comment on this proposed project.

Sincerely,

Kathy Duttenhefner

Kathy Duttenhefner
Coordinator/Biologist II, Natural Resources Division

1600 East Century Ave. Ste. 3 | Bismarck, ND 58503
PHONE: 701-328-5357 | FAX: 701-328-5363 | EMAIL: parkrec@nd.gov | WEBSITE: www.parkrec.nd.gov

North Dakota State Water Commission

NORTH Dakota | Water Commission
Be Legendary.™

September 10, 2020

Jennifer Bell
AECOM
1000 East Calgary Avenue, STE 1
Bismarck, ND 58503

Dear Ms. Bell:

This is in response to your request for a review of the environmental impacts associated with the Neset to North Shore 230 kV Transmission Line Project located in Mountrail County, ND.

The proposed project has been reviewed by State Water Commission staff, and the following comments are provided:

- There may be floodplains identified and/or mapped where this proposed project is to take place. North Dakota has no formal 'permitting' authority as a state entity in NFIP identified floodplain areas. The permitting is always done by the local entity, which has jurisdiction in the area in question. Please work closely with the local Floodplain Administrator.

- The OSE and Water Resource Districts are responsible for regulating drainage in North Dakota. The OSE is also responsible for regulating the construction and modification of any dike, levee, or other device capable of obstructing or diverting more than 50 acre-feet of water. Consequently, the OSE requests to be notified regarding a proposed project's impacts, if any, to water resources, such as watercourses (i.e. streams or rivers), agricultural drains, and wetlands (i.e. ponds, sloughs, lakes, or any series thereof), and dikes, levees, and other water control devices, as any alterations, modifications, improvements, or impacts to those may require a drainage permit(s) or a construction permit(s) from the OSE. For more information on these requirements, please visit the Regulation & Appropriation tab on the OSE's website (swc.nd.gov), or contact the OSE's Regulatory Division at 701-328-2752 or swcregpermits@nd.gov.

- Initial review indicates the project does not require a conditional or temporary permit for water appropriation. However, if surface water or groundwater will be diverted for construction of the project, a water permit will be required per North Dakota Century Code § 61-04-02. Please consult with the Water Appropriations Division of the Office of the State Engineer if you have any questions at (701) 328-2754 or waterpermits@nd.gov.

- The State Water Commission maintains a network of observation wells across the state for monitoring the water levels and quality in glacial and bedrock aquifers. These wells are often installed in road and highway rights-of-way to limit inconvenience to the adjacent landowners. State Water Commission observation wells have a yellow protective casing extending between 1 and 3 feet above ground surface, and their locations are marked with a stake. If an observation well is encountered during project activities and must be removed, please contact the Water Appropriations Division. The State Water Commission hopes to keep all observation wells, but otherwise will ensure the well is properly abandoned.

Thank you for the opportunity to provide review comments. Should you have further questions, please contact me at 701-328-4970 or stevebest@nd.gov.

Sincerely,

Steven Best
Planner III

SB:dm/1570

U.S. Army Corps of Engineers

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
3319 UNIVERSITY DRIVE
BISMARCK, NORTH DAKOTA 58504-7565

September 11, 2020

NWO-2020-01694-BIS

AECOM
Attn: Ms. Jennifer Bell
100 East Calgary Avenue, Suite 1
Bismarck, North Dakota 58503

Dear Ms. Bell:

This is in response to your solicitation letter received on September 1, 2020 requesting Department of the Army (DA), United States Army Corps of Engineers (Corps) comments on the proposed Basin Electric Power Cooperative, Neset to North Shore 230-kilovolt (kV) Transmission Line Project. The project route starts in Section 19 and 20, Township 157 North, Range 94 West at the existing Neset Substation near Tioga and ends at the proposed North Shore Substation located in Section 31, Township 155 North, Range 92 West, Mountrail County, North Dakota.

Corps Regulatory Offices administers Section 404 of the Clean Water Act. Section 404 of the Clean Water Act regulates the discharge of dredge or fill material (temporarily or permanently) in waters of the United States. Waters of the United States may include, but are not limited to, rivers, streams, ditches, coulees, lakes, ponds, and their adjacent wetlands. Fill material includes, but is not limited to, rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mines or other excavation activities and materials used to create any structure or infrastructure in waters of the United States.

Enclosed for your information is the fact sheet for Nationwide Permit 12, Utility Line Activities. Utility lines are already authorized by Nationwide Permit 12 provided the utility line can be placed without any change to pre-construction contours and all other proposed construction activities and facilities are in compliance with the Nationwide's permit conditions and 401 Water Quality Certification. On Tribal Lands, Water Quality Certification is denied for all Nationwide Permits. Applicants must work with EPA to obtain individual water quality certification. Please note the pre-construction notification requirements on page 2 of the fact sheet. If a project involves any one of the seven notification requirements, the project proponent must submit a DA application. Furthermore, a project must also be in compliance with the "Regional Conditions for Nationwide Permits within the State of North Dakota", found on pages 18 thru 21 of the fact sheet.

In the event your project(s) requires approval from the U.S. Army Corps of Engineers and cannot be authorized by Nationwide Permit(s), a Standard or Individual Permit will be required. A project that requires a Standard or Individual Permit is intensely reviewed and will require the issuance of a public notice. A Standard or Individual Permit generally requires a minimum of 120 days for processing but based on the project impacts and comments received through the public notice may extend well beyond 120 days.

This correspondence letter does not approve the proposed construction work or does not verify the proposed project complies with the Nationwide Permit(s).

If any of these projects require a Section 404 permit, please complete and submit the enclosed Department of the Army permit application (ENG Form 4345) to the U.S. Army Corps of Engineers, North Dakota Regulatory Office, 3319 University Drive, North Dakota 58504 or to the email address below. If you are unsure if a permit is required, you may submit an application; include a project location map, description of work, and construction methodology.

The North Dakota Regulatory office can accept (and prefers) electronic submissions to the following email: CENWO-OD-RND@usace.army.mil.

If we can be of further assistance or should you have any questions regarding our program, please do not hesitate to contact this office by letter of phone at (701) 255-0015.

Sincerely,

MCQUEARY.PATRICIA.L.1369971936

Digitally signed by MCQUEARY.PATRICIA.L.1369971936
Date: 2020.09.11 13:17:01 -05'00'

Patricia L. McQueary
State Program Manager
North Dakota

Enclosure
ENG Form 6082
Fact Sheet NWP 12

U.S. Army Corps of Engineers (USACE)

NATIONWIDE PERMIT PRE-CONSTRUCTION NOTIFICATION (PCN)

33 CFR 330. The proponent agency is CECW-CO-R.

Form Approved -
OMB No. 0710-0003
Expires: 02-28-2022

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority	Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332.
Principal Purpose	Information provided on this form will be used in evaluating the nationwide permit pre-construction notification.
Routine Uses	This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of the agency coordination process.
Disclosure	Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued.

The public reporting burden for this collection of information, 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PLEASE DO NOT RETURN YOUR RESPONSE TO THE ABOVE EMAIL.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (*see sample drawings and/or instructions*) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (*agent is not required*)
First - Middle - Last -	First - Middle - Last -
Company -	Company -
Company Title -	E-mail Address -
E-mail Address -	
6. APPLICANT'S ADDRESS:	**9. AGENT'S ADDRESS:**
Address-	Address-
City - State - Zip - Country -	City - State - Zip - Country -
7. APPLICANT'S PHONE NOs. with AREA CODE	**10. AGENT'S PHONE NOs. with AREA CODE**
a. Residence b. Business c. Fax d. Mobile	a. Residence b. Business c. Fax d. Mobile

STATEMENT OF AUTHORIZATION

11. I hereby authorize, _____ to act in my behalf as my agent in the processing of this this nationwide permit pre-construction notification and to furnish, upon request, supplemental information in support of this nationwide permit pre-construction notification.

_____ _____
SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME or TITLE (*see instructions*)

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

13. NAME OF WATERBODY, IF KNOWN (*if applicable*)

14. PROPOSED ACTIVITY STREET ADDRESS (*if applicable*)

15. LOCATION OF PROPOSED ACTIVITY (*see instructions*)
Latitude °N Longitude °W

City: State: Zip:

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (*see instructions*)

State Tax Parcel ID Municipality

Section Township Range

17. DIRECTIONS TO THE SITE.

18. IDENTIFY THE SPECIFIC NATIONWIDE PERMIT(S) YOU PROPOSE TO USE:

19. DESCRIPTION OF PROPOSED NATIONWIDE PERMIT ACTIVITY (*see instructions*)

20. DESCRIPTION OF PROPOSED MITIGATION MEASURES (*see instructions*)

21. PURPOSE OF NATIONWIDE PERMIT ACTIVITY (*Describe the reason or purpose of the project, see instructions*)

22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by Proposed Nationwide Permit Activity (*see instructions*)

Acres Linear Feet Cubic Yards Dredged or Discharged

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site.

23. List any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project on any related activity (*see instructions*)

24. If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and requires pre-construction notification, explain how the compensatory mitigation requirement in paragraph (c) of general condition 23 will be satisfied, or explain why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required for the proposed activity.

25. Is Any Portion of the Nationwide Permit Activity Already Complete? ☐ Yes ☐ No If Yes, describe the completed work:

26. List the name(s) of any species listed as endangered or threatened under the Endangered Species Act that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. (*see instructions*)

27. List any historic properties that have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic property or properties. (*see instructions*)

28. For a proposed NWP activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, identify the Wild and Scenic River or the "study river":

29. If the proposed NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, have you submitted a written request for section 408 permission from the Corps district having jurisdiction over that project? ☐ Yes ☐ No

If "yes", please provide the date your request was submitted to the Corps District:

30. If the terms of the NWP(s) you want to use require additional information to be included in the PCN, please include that information in this space or provide it on an additional sheet of paper marked Block 30. (*see instructions*)

31. Pre-construction notification is hereby made for one or more nationwide permit(s) to authorize the work described in this notification. I certify that this information in this pre-construction notification is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT	DATE	SIGNATURE OF AGENT	DATE

The Pre-Construction Notification must be signed by the person who desires to undertake the proposed activity (applicant) and, if the statement in block 11 has been filled out and signed, the authorized agent.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Instructions for Preparing a

Department of the Army

Nationwide Permit (NWP) Pre-Construction Notification (PCN)

Blocks 1 through 4. To be completed by the Corps of Engineers.

Block 5. Applicant' Name. Enter the name and the e-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the preconstruction notification, please attach a sheet of paper with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the PCN. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant Telephone Number(s). Please provide the telephone number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, consultant, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where he / she can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by the applicant, if an agent is to be employed.

Block 12. Proposed Nationwide Permit Activity Name or Title. Please provide a name identifying the proposed NWP activity, e.g., Windward Marina, Rolling Hills Subdivision, or Smith Commercial Center.

Block 13. Name of Waterbody. Please provide the name (if it has a name) of any stream, lake, marsh, or other waterway to be directly impacted by the NWP activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Activity Street Address. If the proposed NWP activity is located at a site having a street address (not a box number), please enter it in Block 14.

Block 15. Location of Proposed Activity. Enter the latitude and longitude of where the proposed NWP activity is located. Indicate whether the project location provided is the center of the project or whether the project location is provided as the latitude and longitude for each of the "corners" of the project area requiring evaluation. If there are multiple sites, please list the latitude and longitude of each site (center or corners) on a separate sheet of paper and mark as Block 15.

Block 16. Other Location Descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and / or local Municipality where the site is located.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide a description of the location of the proposed NWP activity, such as lot numbers, tract numbers, or you may choose to locate the proposed NWP activity site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed NWP activity site if known. If there are multiple locations, please indicate directions to each location on a separate sheet of paper and mark as Block 17.

Block 18. Identify the Specific Nationwide Permit(s) You Propose to Use. List the number(s) of the Nationwide Permit(s) you want to use to authorize the proposed activity (e.g., NWP 29).

Block 19. Description of the Proposed Nationwide Permit Activity. Describe the proposed NWP activity,including the direct and indirect adverse environmental effects the activity would cause. The description of the proposed activity should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal. Identify the materials to be used in construction, as well as the methods by which the work is to be done.

Provide sketches when necessary to show that the proposed NWP activity complies with the terms of the applicable NWP(s). Sketches usually clarify the activity and result in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed NWP activity (e.g.,a conceptual plan), but do not need to be detailed engineering plans.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 19.

Block 20. Description of Proposed Mitigation Measures. Describe any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed NWP activity. The description of any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or additional mitigation measures.

Block 21. Purpose of Nationwide Permit Activity. Describe the purpose and need for the proposed NWP activity. What will it be used for and why? Also include a brief description of any related activities associated with the proposed project. Provide the approximate dates you plan to begin and complete all work.

Block 22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by the Proposed Nationwide Permit Activity. For discharges of dredged or fill material into waters of the United States, provide the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained by the proposed NWP activity. For structures or work in navigable waters of the United States subject to Section 10 of the Rivers and Harbors Act of 1899, provide the amount of navigable waters filled, dredged, occupied by one or more structures (e.g., aids to navigation, mooring buoys) by the proposed NWP activity.

For multiple NWPs, or for separate and distant crossings of waters of the United States authorized by NWPs 12 or 14, attach an extra sheet of paper marked Block 21 to provide the quantities of wetlands, streams, or other types of waters filled, flooded, excavated, or drained (or dredged or occupied by structures, if in waters subject to Section 10 of the Rivers and Harbors Act of 1899) for each NWP. For NWPs 12 and 14, include the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained for each separate and distance crossing of waters or wetlands. If more space is needed, attach an extra sheet of paper marked Block 21.

Block 23. Identify Any Other Nationwide Permit(s), Regional General Permit(s), or Individual Permit(s) Used to Authorize Any Part of Proposed Activity or Any Related Activity. List any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. For linear projects, list other separate and distant crossings of waters and wetlands authorized by NWPs 12 or 14 that do not require PCNs. If more space is needed, attach an extra sheet of paper marked Block 22.

Block 24. Compensatory Mitigation Statement for Losses of Greater Than 1/10-Acre of Wetlands When Pre-Construction Notification is Required. Paragraph (c) of NWP general condition 23 requires compensatory mitigation at a minimum one-for-one replacement ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation is more environmentally appropriate or the adverse environmental effects of the proposed NWP activity are no more than minimal without compensatory mitigation, and provides an activity-specific waiver of this requirement. Describe the proposed compensatory mitigation for wetland losses greater than 1/10 acre, or provide an explanation of why the district engineer should not require wetland compensatory mitigation for the proposed NWP activity. If more space is needed, attach an extra sheet of paper marked Block 23.

Block 25. Is Any Portion of the Nationwide Permit Activity Already Complete? Describe any work that has already been completed for the NWP activity.

Block 26. List the Name(s) of Any Species Listed As Endangered or Threatened under the Endangered Species Act that Might be Affected by the Nationwide Permit Activity. If you are not a federal agency, and if any listed species or designated critical habitat might be affected or is in the vicinity of the proposed NWP activity, or if the proposed NWP activity is located in designated critical habitat, list the name(s) of those endangered or threatened species that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. If you are a Federal agency, and the proposed NWP activity requires a PCN, you must provide documentation demonstrating compliance with Section 7 of the Endangered Species Act.

Block 27. List Any Historic Properties that Have the Potential to be Affected by the Nationwide Permit Activity. If you are not a federal agency, and if any historic properties have the potential to be affected by the proposed NWP activity, list the name(s) of those historic properties that have the potential to be affected by the proposed NWP activity. If you are a Federal agency, and the proposed NWP activity requires a PCN, you must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

Block 28. List the Wild and Scenic River or Congressionally Designated Study River if the Nationwide Permit Activity Would Occur in such a River. If the proposed NWP activity will occur in a river in the National Wild and Scenic River System or in a river officially designated by Congress as a "study river" under the Wild and Scenic Rivers Act, provide the name of the river. For a list of Wild and Scenic Rivers and study rivers, please visit http://www.rivers.gov/

Block 29. Nationwide Permit Activities that also Require Permission from the Corps Under 33 U.S.C. 408. If the proposed NWP activity also requires permission from the Corps under 33 U.S.C. 408 because it will temporarily or permanently alter, occupy, or use a Corps federal authorized civil works project, indicate whether you have submitted a written request for section 408 permission from the Corps district having jurisdiction over that project.

Block 30. Other Information Required For Nationwide Permit Pre-Construction Notifications. The terms of some of the Nationwide Permits include additional information requirements for preconstruction notifications:

* NWP 3, Maintenance –information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals.
* NWP 31, Maintenance of Existing Flood Control Facilities –a description of the maintenance baseline and the dredged material disposal site.
* NWP 33, Temporary Construction, Access, and Dewatering –a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions.
* NWP 44, Mining Activities –if reclamation is required by other statutes, then a copy of the final reclamation plan must be submitted with the pre-construction notification.
* NWP 45, Repair of Uplands Damaged by Discrete Events –documentation, such as a recent topographic survey or photographs, to justify the extent of the proposed restoration.
* NWP 48, Commercial Shellfish Aquaculture Activities –(1) a map showing the boundaries of the project area, with latitude and longitude coordinates for each corner of the project area; (2) the name(s) of the species that will be cultivated during the period this NWP is in effect; (3) whether canopy predator nets will be used; (4) whether suspended cultivation techniques will be used; and (5) general water depths in the project area (a detailed survey is not required).
* NWP 49, Coal Remining Activities –a document describing how the overall mining plan will result in a net increase in aquatic resource functions to the district engineer and receive written authorization prior to commencing the activity.
* NWP 50, Underground Coal Mining Activities –if reclamation is required by other statutes, then a copy of the reclamation plan must be submitted with the pre-construction notification.

If more space is needed, attach an extra sheet of paper marked Block 29.

Blocks 31 and 32. For bank stabilization activities, we are collecting information on the use of living shorelines in coastal waters and lakes to inform future NWP rulemaking efforts. If the PCN is for a proposed NWP 13 activity, and it is located in coastal waters or a lake, please check the appropriate box in block 31 to indicate whether you considered the use of a living shoreline to protect your property from erosion. If the PCN is for a proposed NWP 13 activity, and it is located in coastal waters or a lake, please check the appropriate box in block 32 to indicate whether there are contractors in your area that construct living shorelines.

Block 33. Signature of Applicant or Agent. The PCN must be signed by the person proposing to undertake the NWP activity, and if applicable, the authorized party (agent) that prepared the PCN. The signature of the person proposing to undertake the NWP activity shall be an affirmation that the party submitting the PCN possesses the requisite property rights to undertake the NWP activity (including compliance with special conditions, mitigation, etc.).

DELINEATION OF WETLANDS, OTHER SPECIAL AQUATIC SITES, AND OTHER WATERS

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current wetland delineation manual and regional supplement published by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. The 45 day PCN review period will not start until the delineation is submitted or has been completed by the Corps.

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross-Section Map. Identify each illustration with a figure or attachment number. For linear projects (e.g. roads, subsurface utility lines, etc.) gradient drawings should also be included. Please submit one original, or good quality copy, of all drawings on 8½x11 inch plain white paper (electronic media may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations. Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross-section). While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.

ADDITIONAL INFORMATION AND REQUIREMENTS

For proposed NWP activities that involve discharges into waters of the United States, water quality certification from the State, Tribe, or EPA must be obtained or waived (see NWP general condition 25). Some States, Tribes, or EPA have issued water quality certification for one or more NWPs. Please check the appropriate Corps district web site to see if water quality certification has already been issued for the NWP(s) you wish to use. For proposed NWP activities in coastal states, state Coastal Zone Management Act consistency concurrence must be obtained, or a presumption of concurrence must occur (see NWP general condition 26). Some States have issued Coastal Zone Management Act consistency concurrences for one or more NWPs. Please check the appropriate Corps district web site to see if Coastal Zone Management Act consistency concurrence has already been issued for the NWP(s) you wish to use.

FACT SHEET
NATIONWIDE PERMIT 12
(2017)

UTILITY LINE ACTIVITIES

Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project. Utility lines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of utility lines, including outfall and intake structures. There must be no change in pre-construction contours of waters of the United States. A ''utility line'' is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and internet, radio, and television communication. The term ''utility line'' does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area. Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.
Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities. Foundations for overhead utility line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.
Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into non- tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or

geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows. This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit. This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub-soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines. This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre- construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.
Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) The activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e., water of the United States), and it runs parallel to or along a stream bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10- acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (See general condition 32.) (Sections 10 and 404)

Note 1: Where the utility line is constructed or installed in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, a copy of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: For utility line activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Utility line activities must comply with 33 CFR 330.6(d).

Note 3: Utility lines consisting of aerial electric power transmission lines crossing navigable waters of the United States (which are defined at 33 CFR part 329) must comply with the applicable minimum clearances specified in 33 CFR 322.5(i).

Note 4: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 5: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

Note 6: This NWP authorizes utility line maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 7: For overhead utility lines authorized by this NWP, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

Note 8: For NWP 12 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, ''District Engineer's Decision.'' The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/ or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation.

(a) No activity may cause more than a minimal adverse effect on navigation.
(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.
(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements.

No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas.

Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas.

Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds.

No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material.

No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes.

No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects from Impoundments.

If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows.

To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains.

The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment.

Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls.

Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Fills.

Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance.

Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project.

The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers.

(a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a ''study river'' for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.
(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a ''study river'' for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. The permittee shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.
(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights.

No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

18. Endangered Species.

(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will

directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which ‘‘may affect’’ a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur.
(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. If pre- construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.
(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed activity or that utilize the designated critical habitat that might be affected by the proposed activity. The district engineer will determine whether the proposed activity ‘‘may affect’’ or will have ‘‘no effect’’ to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non- Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have ‘‘no effect’’ on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.
(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species- specific permit conditions to the NWPs.
(e) Authorization of an activity by an NWP does not authorize the ‘‘take’’ of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with ‘‘incidental take’’ provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where ‘‘take’’ means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word ‘‘harm’’ in the definition of ‘‘take’’ means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.
(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district

engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.
(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide Web pages at http://www.fws.gov/ or http:// www.fws.gov/ipac and http:// www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. Migratory Birds and Bald and Golden Eagles.

The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether ''incidental take'' permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties.

(a) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.
(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act. If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.
(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought

from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed.

(d) For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non- Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/ THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. <u>Discovery of Previously Unknown Remains and Artifacts.</u>

If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid

construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters.

Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.
(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.
(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation.

The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:
(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).
(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.
(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1⁄10-acre and require pre- construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1⁄10-acre or less that require pre- construction notification, the district engineer may determine on a case-by- case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.
(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult- to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)).

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2- acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.
(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee- responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.
(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. <u>Safety of Impoundment Structures.</u>

To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. <u>Water Quality.</u>

Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality. *Specifically for North Dakota, the North Dakota Department of Health has denied water quality certification for all projects proposed to affect Class 1 and 1A, II and Class III rivers and streams or classified lakes listed in Appendices I and II of the standards, individual certification must be obtained. For project proposed to affect any other waters, the North Dakota Department of Health has issued water quality certification provided the attached Construction and Environmental Disturbance Requirements are followed. The Standards may be found at*
http://www.legis.nd.gov/information/acdata/pdf/33-16-02.1.pdf?2016031115632
On Tribal Lands, Water Quality Certification is denied for all Nationwide Permits. Applicants must work with EPA to obtain individual water quality certification. Contact: USEPA, Region 8,

401 Certification Program – 8WP-AAP, 1595 Wynkoop Street, Denver, Colorado 80202-1129. (303-312-6909)

26. Coastal Zone Management.

In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions.

The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits.

The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications.

If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

> When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.
>
> _____ (Transferee) ____ _____ (Date)

30. Compliance Certification.

Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:
(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;
(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and
(c) The signature of the permittee certifying the completion of the activity and mitigation. The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States.

If an NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a ‘‘USACE project’’), the prospective permittee must submit a pre- construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission is not authorized by NWP until the appropriate Corps office issues the section 408 permission to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification.

(a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer’s receipt of the complete PCN and the prospective permittee has not received written notice from the district or division

engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is ''no effect'' on listed species or ''no potential to cause effects'' on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation,

especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1⁄10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-Federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act.

(8) For non-Federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a ''study river'' for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the ''study river'' (see general condition 16); and

(10) For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is an NWP PCN and must include all of the applicable information required in paragraphs (b)(1) through (10) of this general condition. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) Agency Coordination:

(1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) All NWP activities that require pre-construction notification and result in the loss of greater than 1⁄2-acre of waters of the United States; (ii) NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed; (iii) NWP 13

activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iv) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or email that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre- construction notifications to expedite agency coordination.

Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

2017 NATIONWIDE PERMITS
REGIONAL CONDITIONS
OMAHA DISTRICT
STATE OF NORTH DAKOTA

The following Nationwide Permit Regional Conditions will be used in the State of North Dakota. Regional conditions are placed on Nationwide Permits to ensure projects result in no more than minimal adverse impacts to the aquatic environment and to address local resource concerns.

1. **Wetlands Classified as Peatlands – Revoked for use**

All Nationwide Permits, with the exception of 3, 5, 20, 32, 38 and 45, are revoked for use in peatlands. Peatlands are permanently or seasonally saturated and inundated wetlands where conditions inhibit organic matter decomposition and allow for the accumulation of peat. Under cool, anaerobic, and acidic conditions, the rate of organic matter accumulation exceeds organic decay.

2. **Wetlands Classified as Peatlands – Preconstruction Notification Requirement**

For Nationwide Permits 3, 5, 20, 32, 38 and 45 permittees must notify the Corps in accordance with General Condition 32 (Pre-Construction Notification) prior to initiating any regulated activity impacting peatlands.

3. **Waters Adjacent to Natural Springs – Preconstruction Notification Requirement**

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 32 (Pre-Construction Notification) for regulated activities located within 100 feet of the water source in natural spring areas. For purposes of this condition, a spring source is defined as any location where there is flow emanating from a distinct point at any time during the growing season. Springs do not include seeps and other groundwater discharge areas where there is no distinct point source.

4. **Missouri River, including Lake Sakakawea and Lake Oahe – Pre-construction Notification Requirement**

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 32 (Pre-Construction Notification) prior to initiating any regulated activity occurring in or under the Missouri River, including Lake Sakakawea and Lake Oahe. In addition, any activity occurring in an off channel area (marinas, bays, etc.) of any of these waterbodies, a preconstruction notification is required.

5. **Spawning Areas**

Spawning restrictions and important fish habitat areas, if applicable, can be accessed on the North Dakota Game & Fish Department's website at:

http://gf.nd.gov/gnf/conservation/docs/spawning-restriction-exclusions.pdf

No regulated activity within the Red River of the North shall occur between 15 April and 1 July. Spawning season restrictions do not apply to projects involving dredging or other discharges of less than 25 cubic yards of material in any jurisdictional water.

6. **Counter-Sinking Culverts and Associated Riprap – All Nationwide Permits**

In streams with intermittent or perennial flow and a stable stream bed, culvert stream crossings shall be installed with the culvert invert set below the natural streambed according to the table below. This regional condition does not apply in instances where the lowering of the culvert invert would allow a headcut to migrate upstream of the project into an unaffected stream reach or result in lowering the elevation of the stream reach.

Riprap inlet and outlet protection shall be placed to match the height of the culvert invert.

Culvert Type	Drainage Area	Minimum Distance Culvert Invert Shall Be Lowered Below Stream Flow Line
All culvert types	≤ 100 acres	Not required
Pipe diameter <8.0 ft	100 to 640 acres	0.5 ft
Pipe diameter <8.0 ft	>640 acres	1.0 ft
Pipe diameter ≥ 8.0 ft	All drainage sizes	1.0 ft
Box culvert	All drainage sizes	1.0 ft

REGIONAL CONDITIONS APPLICABLE TO SPECIFIC NATIONWIDE PERMITS

Nationwide Permit 7 – Outfall Structures and Associated Intake Structures and Nationwide Permit 12 – Utility Line Activities.

Intake Structures – Intake screens with a maximum mesh opening of ¼-inch must be provided, inspected annually, and maintained. Wire, Johnson-like, screens must have a maximum distance between wires of 1/8-inch. Water velocity at the intake screen shall not exceed ½-foot per second.

Pumping plant sound levels will not exceed 75 dB at 50 feet.

Intakes located in Lake Sakakawea, above river mile 1519, and on the Yellowstone River, are subject to the following conditions:

- The intakes shall be floating.
- At the beginning of the pumping season, the intake shall be placed over water with a minimum depth of 20 feet.
- If the 20-foot depth is not attainable, then the intake shall be located over the deepest water available.

- If the water depth falls below six feet, the intake shall be moved to deeper water or the maximum intake velocity shall be limited to ¼ foot per second.

Intakes located in Lake Sakakawea, below river mile 1519, and the Missouri River below Garrison Dam are subject to the following conditions:

- The intakes shall be submerged.
- At the beginning of the pumping season, the intake will be placed at least 20 vertical feet below the existing water level.
- The intake shall be elevated 2 to 4 feet off the bottom of the river or reservoir bed.
- If the 20-foot depth is not attainable, then the intake velocity shall be limited to ¼-foot per second with intake placed at the maximum practicable attainable depth.

Intakes and associated utility lines that are proposed to cross sandbars in areas designated as piping plover critical habitat are prohibited.

Utility Lines

- Any temporary open trench associated with utility lines are to be closed within 30 days of excavation. This time limit may be extended by notifying the North Dakota Regulatory Office and receiving a written response that the extension is acceptable.

Nationwide Permit 11 – Temporary Recreational Structures – Boat Docks

To ensure that the work or structure shall not cause unreasonable obstruction to the free navigation of the navigable waters, the following conditions are required:

- No boat dock shall be located on a sandbar or barren sand feature. The farthest point riverward of a dock shall not exceed a total length of 30 feet from the ordinary high watermark. Information Note: Issuance of this permit does not supersede authorization required by the North Dakota State Engineer's Office.
- Any boat dock shall be anchored to the top of the high bank.
- Any boat dock located within an excavated bay or marina that is off the main river channel may be anchored to the bay or marina bottom with spuds.

Section 10 Waters located in the State of North Dakota are:

Bois de Sioux River
James River
Missouri River
Red River of the North
Upper Des Lacs Lake
Yellowstone River

Nationwide Permit 13 – Bank Stabilization

Permittees must notify the Corps in accordance with General Condition No. 32 (Pre-Construction Notification) prior to initiating any regulated activity. The notification must also include photo evidence of erosion in the area. Prohibited materials found at

http://www.nwo.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/2034/Article/487696/prohibited-restricted-materials.aspx cannot be used in waters of the United States.

Nationwide Permit 23 – Approved Categorical Exclusions

Permittees must notify the Corps in accordance with General Condition No. 32 (Pre-Construction Notification) prior to initiating any regulated activity. In addition to information required by General Condition 32 (Pre-Construction Notification), permittees must identify the approved categorical exclusion that applies and provide documentation that the project fits the categorical exclusion.

GENERAL CONDITIONS (REGIONAL ADDITIONS)

General Condition 32 Notification– Pre-construction Notification

Prospective permittees should be aware that a field aquatic resources delineation may be required for applications where notification is required in accordance with General Condition 32 (Pre-Construction Notification) and/or mitigation may be required. Specific guidelines outlining the aquatic resources delineation process in the State of North Dakota and the Corps 1987 Wetland Delineation Manual and applicable Regional supplements to the Manual can be accessed on the North Dakota Regulatory Office's website at:
http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/NorthDakota.aspx

NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

North Dakota Department of Transportation

NORTH Dakota | Transportation
Be Legendary.™

September 24, 2020

Jennifer Bell
Environmental Project Manager
AECOM
1000 E. Calgary Ave., Suite 1
Bismarck, ND 58503

NESET TO NORTH SHORE 230-KILOVOLT (kV) TRANSMISSION LINE PROJECT 26.5 MILES LONG AND CONNECT TO EXISTING NESET SUBSTATION NEAR TIOGA, MOUNTRAIL COUNTY, NORTH DAKOTA

We have reviewed your August 13, 2020, email.

This project should have no adverse effect on the North Dakota Department of Transportation highways.

However, if because of this project any work needs to be done on highway right of way, appropriate permits and risk management documents will need to be obtained from the Department of Transportation District Engineer, Joel Wilt at 701-774-2700.

CHAD M. ORN, P.E., DIRECTOR – OFFICE OF PROJECT DEVELOPMENT

57/cmo/js

c: Joel Wilt, Williston District Engineer

North Dakota Department of Trust Lands

Phone memo

Call from
Kayla Spangelo
ND Trust Lands

Project name
Basin Electric
Neset to North Shore

Date
September 24, 2020

Subject
Agency letter

Phone number
(701) 328-1916

Prepared by
Jennifer Bell
AECOM

Kayla Spangelo with the North Dakota Department of Trust Lands called in response to the agency letter sent out for the Basin Electric Neset to North Shore Transmission Project. Kayla indicated that she has been working closely with Basin on their easement application. Basin has submitted their application, and she has been working with them on route alignment modifications. She expects the easement agreement to be finalized once the route is final, which typically is after they have the PSC permit. Both Metcalf and West already have permits to do cultural and biological resources surveys on the property.

Kayla indicated that, in general, trust lands are primarily leased for grazing, typically livestock use. Lands can be open for hunting and recreation as well. There are other utility easements in this area, which is typical.

U.S. Fish and Wildlife Service

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Dakota Ecological Services
3425 Miriam Avenue
Bismarck, North Dakota 58501

IN REPLY PLEASE REFER TO:
06E15000-2020-TA-0640
Basin Electric Neset to Northshore

October 29, 2020

Jennifer Bell
Environmental Project Manager
AECOM
1000 East Calgary Avenue, Suite 1
Bismarck, North Dakota 58503

Dear Ms. Bell:

Thank you for your letter of August 13, 2020, and the subsequent information provided in your October 8, 2020, email to Heidi Riddle of my staff, requesting comments on Basin Electric's proposed Neset to Northshore 230-kV transmission line located in Mountrail County, North Dakota. The project would be approximately 26.5 miles long and connect the existing Neset Substation located near Tioga to the proposed North Shore Substation located approximately seven miles south of Ross, ND. The U.S. Fish and Wildlife Service (FWS) has the following comments.

Section 7 of the Endangered Species Act

Section 7 of the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 *et seq.*) requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the FWS *if they determine their project and associated actions "may affect" listed species or critical habitat*. If Federal agencies or their non-federal representatives determine their project and associated actions will have "no effect" on listed species, their habitats, or designated critical habitat, consultation is not required. However, if a "no effect" is determined, we recommend that you maintain a written record in support of your conclusion.

Consultations on IPaC

We invite you to use a new tool the FWS has designed to help with the consultation process – the Information for Planning and Consultation (IPaC) database (http://ecos.fws.gov/ipac). The database provides guidance to help you determine what your action area is, whether endangered species may be found within the action area, and if your project and associated actions may affect listed species. Additionally, the Section 7(a)(2) Technical Assistance webpage (https://www.fws.gov/midwest/endangered/section7/s7process/index.html) contains step-by-step guidance for the Section 7(a)(2) consultation process as well as informal consultation letter examples templates for documenting your findings related to threatened and endangered species.

Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act

Additionally, while not all are listed as threatened or endangered, eagles and migratory birds have protections under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). The BGEPA prohibits take which is defined as, "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb" (50 CFR 22.3). Disturb is defined in regulations as, "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." The MBTA makes it unlawful without a waiver to pursue, hunt, take, capture, kill, or sell birds listed as migratory birds, including eagles. The statute does not discriminate between live or dead birds and also grants full protection to any bird parts including feathers, eggs, and nests.

Service Property Interests

As part of the National Wildlife Refuge System, the FWS administers fee title Refuge and Waterfowl Production Areas, as well as wetland and grassland easements, throughout North Dakota. For exact locations of FWS interest lands, please contact the appropriate Wetland Management Districts (WMD) for guidance regarding FWS easements. For Mountrail County, contact Lostwood Complex, Kory Richardson (acting), at 701-848-2466.

Conclusion

These comments provide technical assistance only and do not constitute the report of the Secretary of the Interior on the project within the meaning of Section 2(b) of the Fish and Wildlife Coordination Act, do not fulfill the requirements under the Endangered Species Act, the Bald and Golden Eagle Protection Act, or the Migratory Bird Treaty Act, nor do they represent the review comments of the U.S. Department of the Interior on any forthcoming environmental statement. Thank you for the opportunity to provide comments early in the planning process. If you have any additional questions or comments, please contact Heidi Riddle of my staff at (701) 355-8545 or via email at heidi_riddle@fws.gov, or contact me at (701) 355-8512 or Drew_Becker@fws.gov.

Sincerely,

DREW BECKER Digitally signed by DREW BECKER
Date: 2020.10.30 14:34:25 -05'00'

Drew Becker
ND Ecological Services Supervisor

cc: Kory Richardson, Lostwood Complex

Appendix G
Project Information Pamphlet for Landowners

After Construction

Construction crews will minimize potential damage and clean up the right of way after work is completed. Before the last crew leaves, all work areas and access roads not required for line maintenance will be restored, as nearly as practical, to their previous condition. Construction refuse and scrap material will also be removed.

Landowners will be compensated for crop and for property damage that occurs as a result of construction or maintenance of the transmission line. If a landowner believes that damage has occurred and has not been recognized, he or she should contact Basin Electric's land services specialist.

Maintenance

After the line is energized, maintenance crews will periodically inspect, repair, and maintain its components. Transmission lines are inspected from the air and on the ground. Aerial inspections are routinely performed, particularly after wind, ice, or lightning storms. Ground inspections are usually performed annually to detect items needing repair or replacement that are not found by aerial inspections.

Contact Information

If you have any questions, concerns, or would like a map showing the line route in your area, please contact:

Shauna Laber
Basin Electric Headquarters
701-390-3601
slaber@bepc.com

Mike Murray
Basin Electric Headquarters
701-557-5454

Bobby Nasset
Basin Electric Headquarters
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BASIN ELECTRIC POWER COOPERATIVE
A Touchstone Energy® Cooperative

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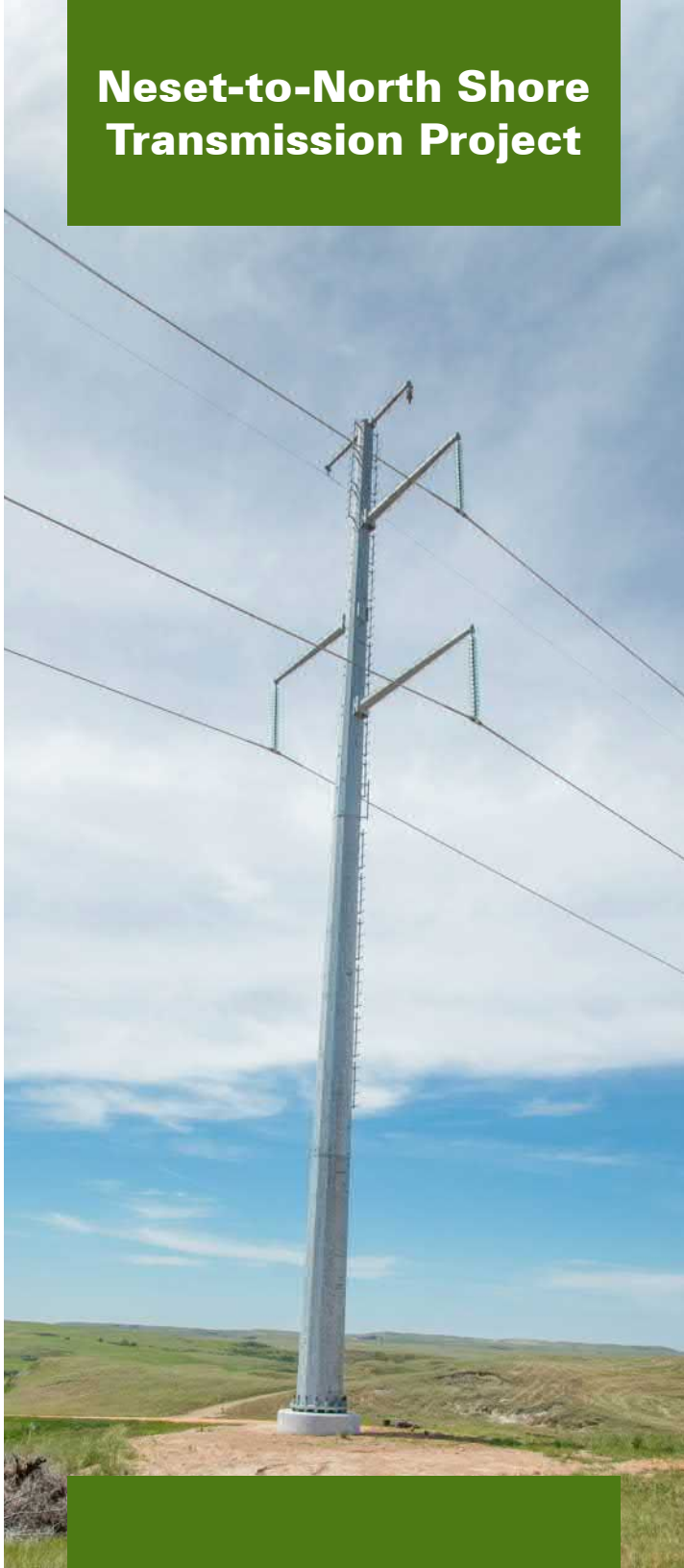
Project information for landowners along the proposed Neset-to-North Shore Transmission Line

Neset-to-North Shore Transmission Project



Introduction

Basin Electric Power Cooperative is an electric power generation and transmission cooperative, headquartered in Bismarck, North Dakota. Basin Electric generates and transmits wholesale electricity to 140 member rural electric cooperatives located in a 9-state service area, serving 3 million customers on their respective systems. Mountrail-Williams Electric Cooperative is the local electric cooperative which depends upon affordable and reliable power from Basin Electric to serve their customers' power needs.

The need for an additional 230-kilovolt (kV) transmission line is due to load growth in the area. As electric load continues to develop in the region between Tioga and New Town, the existing transmission network is unable to maintain loading and voltage criteria during contingency events. The Neset-to-North Shore 230-kV transmission project is required to meet reliability standards and projected electrical demands. The addition of this transmission line will allow continued reliable operation of the transmission system to accommodate additional load growth in the region. The project would provide more reliable service to electric cooperative customers as well as diversify power resources on the larger transmission system.

Southwest Power Pool (SPP) is the regional transmission organization that administers bulk electric transmission system reliability upgrades and generation interconnections. Basin Electric received a Notification to Construct (NTC) Approved Reliability Network upgrades notice in June, 2020, from SPP. Basin Electric is the designated transmission owner for the upgrade, which includes a new 230-kV substation named North Shore, and an approximate 30-mile long transmission line from the existing Neset substation to the proposed North Shore substation.

Permitting

The permitting requirements of the North Dakota Public Service Commission (NDPSC) must be met. Related work began in 2020 and included surveys to look for biological or cultural resources and studies to assess impacts on other resources. A number of factors will influence the transmission line route selection. These include environmental impacts, engineering, land use patterns, economics, electrical requirements, reliability, and existing electric transmission facilities.

Actual line and substation construction is currently scheduled to begin in 2022. It is anticipated that construction will take approximately one year.

Landowner Relations

Initially, a land services specialist will request permission to enter property to conduct surveys and studies. This work may be performed by Basin Electric employees as well as people who are under contract to Basin Electric. The work will be conducted in a manner that minimizes disturbances to the landowner or tenant. Should any damage to crops, fences, or other property occur as a result of these surveys and studies, the landowner will be fairly compensated or the damage will be repaired. Multiple routes may be considered. Once the preferred transmission line route is determined, a specific centerline is located. A combination of aerial surveys, environmental and engineering field studies and geologic investigations are then conducted. Finally, pole or tower locations are selected to satisfy structural design criteria, maintain adequate line-to-ground clearance, and minimize impacts to the property being crossed. Landowner input is encouraged and welcomed throughout this process.

A land services specialist will contact all landowners potentially crossed by the project. This specialist will explain the steps involved in route and pole location selection, land acquisition, and construction. If any proposed construction activities interfere with land use, the land services specialist will discuss those concerns and try to accommodate landowner's concerns.

A 125- to 150-foot wide easement will be acquired for the transmission line. In addition, easements for access roads, typically 30-feet wide, may be acquired in certain areas to access the transmission line. These easements are needed to construct, operate, and maintain the transmission line. They will be purchased through negotiations with landowners. The landowner retains title to the land and may continue to use the property in ways that are compatible with the transmission line as long as care is taken to prevent damage and maintain access to transmission line structures.

No buildings or structures may be erected within the easement because they could impede the safe operation of the line or interfere with access needed for line maintenance.

For safety reasons, pumps, wells, swimming pools, and flammables must not be placed in the easement area. Basin Electric also has other requirements for transmission rights of way to maintain system reliability, such as federal regulations on vegetation management intended to prevent trees on the right of way from causing fires or transmission line outages.

Landowners are presented with a written offer, based on a market analysis of similar type and use of property in Mountrail County. Basin Electric's land services specialists explain the easement and offer of compensation as the basis for payment. Every effort is made to obtain an agreement that is fair and reasonable to both parties. Once the conditions of the agreement are met, the transactions are processed as efficiently as possible. Basin Electric will make full payment or annual installments for up to five years for easements to landowners and pay all fees for recording the easement and any title insurance.

Design and Construction

Basin Electric designs, constructs, operates, and maintains transmission lines and substation facilities to meet or exceed the requirements of the National Electric Safety Code. These standards provide for the safety and protection of landowners and their property, the general public, and utility employees.

Basin Electric will keep landowners apprised of the construction schedule. Reasonable attempts will be made to take into account the use and condition of the land, such as any planting, irrigation and harvest schedules, to minimize any inconvenience. Preparing the right of way for construction may require gates and culverts be installed, vegetation cleared, trees trimmed or removed, and structures removed that reduce adequate ground clearance for the conductors or access to the right of way. It may also be necessary to build access roads in hilly or rough terrain.

Where required, foundations are constructed by digging or drilling holes, which are filled with steel-reinforced concrete. Steel tower components are then transferred to the site and assembled. Completed towers are raised by a crane and set on foundations or directly embedded in the ground. Finally, conductor wires are installed.