

Application to the North Dakota Public Service Commission for an Amended Certificate of Corridor Compatibility



Ellendale 345kV Substation Expansion

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1. Introduction

Montana-Dakota Utilities Co. (Montana-Dakota) submits this application to the North Dakota Public Service Commission (Commission, NDPSC) pursuant to the North Dakota Energy Conversion and Transmission Facility Siting Act, for an Amended Certificate of Corridor Compatibility (Certificate) for the previously sited Big Stone South-Ellendale 345-kilovolt (kV) Transmission Line Project & Associated Ellendale 345kV Substation (PU-13-840). This application requests approval for the proposed expansion of the existing Ellendale 345kV Substation, located approximately 2 miles northwest of the City of Ellendale in Dickey County, North Dakota. The substation is situated along 87th Avenue SE within Section 9, Township 129 North, Range 63 West, and is surrounded primarily by agricultural land with nearby commercial and utility infrastructure. Refer to **Exhibit 1, Project Location**, in **Appendix B**.

The existing Ellendale 345kV Substation is a critical element of Montana-Dakota's transmission system serving southern North Dakota. The Ellendale 345kV Substation Expansion Project (Project) will increase the facility's reliability and operational flexibility while supporting growing commercial loads, specifically to the adjacent large load customer.

For ease of reference, an Application Completion Checklist identifying where each requirement of the North Dakota Energy Conversion and Transmission Facility Siting Act and associated rules are addressed in this application is provided in **Appendix A**.

1.1 Project Background and Objectives

Construction of the existing Ellendale 345kV Substation was completed in 2019 to support growing electrical demand and improve service reliability in the region. The Project would expand the current substation footprint to the west to further enhance system reliability, capacity, and operational flexibility.

The primary objectives of the Project are to:

- Provide redundant power to a nearby Montana-Dakota Transmission Substation to ensure continuous and reliable service to a large load customer and surrounding customers.
- Increase system capacity and flexibility to accommodate current and future electrical demand in the area.

- Enhance grid stability and resiliency by reducing the risk of outages and improving power delivery during maintenance or system disturbances.
- Support regional growth and technological development by strengthening electrical infrastructure, serving critical facilities, and expanding economic opportunities in the region.

1.2 Project Scope

The Project will include the installation of new electrical components, structural foundations, and associated site improvements within the expanded substation area. Key components of the Project are anticipated to include:

- Expanding the existing substation yard and installing additional high-voltage equipment to support redundancy and increased load capacity.
- Construction of new foundations, grading, and access improvements to accommodate the expanded footprint.
- Installation of new control and protection systems to integrate the expanded substation facilities into the existing transmission network.
- Connecting the expanded substation to existing transmission lines and communication systems to ensure seamless operation.
- Implementation of erosion control, stormwater management, and site restoration measures in accordance with applicable federal, state, and local regulations.

The Project Corridor encompasses approximately 30 acres and includes both the existing substation infrastructure and adjacent area proposed for expansion, as well as additional space to accommodate potential future expansion. The amended corridor is aligned with property currently owned by Montana-Dakota. The Survey Area covers approximately 16 acres and includes the previously undeveloped portion of the Project Corridor that was evaluated during the aquatic and cultural resource field surveys. Refer to **Exhibit 2, Project Corridor and Survey Area**, in **Appendix B**.

The Study Area is defined as the Project Corridor plus a 1-mile buffer and is utilized to assess any further reaching impacts. Refer to **Exhibit 3, Study Area**, in **Appendix B**.

1.3 Project Schedule

All land required for the Ellendale 345kV Substation Expansion Project is currently owned by Montana-Dakota; therefore, no additional property acquisition or easement agreements are required.

Following approval of the amended certificate of corridor compatibility, ground-clearing and site preparation activities are scheduled to begin as soon as possible in 2026 to utilize North Dakota's limited construction season. Substation construction and equipment installation will occur throughout the 2026/2027 construction seasons. Construction activities are anticipated to be substantially complete by December 2027, at which time the expanded substation will be energized and placed into service.

The Project schedule is designed to align with seasonal construction conditions and material procurement timelines to ensure efficient implementation and minimize potential delays.

1.4 Project Cost

The estimated total cost to construct the Project is approximately \$12 million. Although construction costs are not relevant to the Commission's review of this Application, all Project costs will be borne by a large load customer.

2. Need for Facility

The Commission has issued authorizations to Montana-Dakota for the Ellendale 345kV Substation and its associated facilities that authorize Montana-Dakota's service to a large load customer in the area. On September 25, 2013, in Case No. PU-13-272, the Commission granted Montana-Dakota Certificate of Public Convenience and Necessity (CPCN) No. 5819 to construct, own, and operate the Ellendale 345kV Substation and its associated facilities. Subsequently, the Commission issued Montana-Dakota CPCN Nos. 5972, 5990, 5991, and 6006 authorizing Montana-Dakota to extend service to a large load customer located adjacent to the Ellendale 345kV Substation and the amended Corridor. See Case No. PU-22-366/PU-22-370 (issuing CPCN No. 5972); Case No. PU-23-321 (issuing CPCN No. 5990); Case No. PU-23-320 (issuing CPCN No. 5991); Case No. PU-24-330 (issuing CPCN No. 6006). Additionally, Montana-Dakota previously entered into a Service Area Agreement with Dakota Valley Electric Cooperative authorizing Montana-Dakota to provide service to the territory surrounding the Ellendale 345kV Substation that includes the amended Corridor.

The Commission approved this Service Agreement in Case No. PU-23-272, and concluded the agreement is compatible with the public interest.

The Project facilities are being built in furtherance of providing service to the large load customer and fall within the authorizations previously issued by the Commission to Montana-Dakota. Thus, upon the Commission's issuance of an amended certificate of corridor compatibility for the Project, Montana-Dakota will have all necessary Commission authorizations to construct the Project.

2.1 Need Analysis

The Project is driven by the need to enhance the reliability of power delivery to the adjacent large load customer while also increasing operational flexibility of the Ellendale 345kV Substation.

2.2 Alternatives

Montana-Dakota considered a range of alternatives to meet the project objectives of improving reliability and providing redundant power.

Alternative locations for the substation expansion were evaluated but dismissed because the existing Ellendale 345kV Substation site offers established infrastructure, available land owned by Montana-Dakota, and direct access to the existing transmission network. Developing the Project elsewhere would require new land acquisition, additional permitting, and construction of new transmission line connections, resulting in higher costs, greater environmental disturbance, and longer construction timelines.

Montana-Dakota also assessed alternative substation configurations and orientations to minimize land use, construction complexity, and potential environmental impacts. Expanding the substation footprint to the west was determined to be the most efficient and least disruptive option, as it utilizes existing Montana-Dakota owned property and avoids encroaching on adjacent land uses. This layout provides adequate space for additional electrical equipment and ensures safe and efficient access for construction and maintenance. While the entire expanded substation pad surface may not be utilized immediately, the single-phase expansion reduces construction costs and increases the efficiency of any future additions necessary to meet increasing demand and capacity.

2.3 Ten Year Plan

Montana-Dakota filed a Ten Year Plan with the Commission in July 2026, under Case No. PU-26-250.

3. Site Selection Criteria

The Project location was selected based on land ownership and existing infrastructure, as well as an assessment of area technical and environmental characteristics, and energy demand in the region. Site selection for the Project was also based upon the criteria described in North Dakota Administrative Code (NDAC) Ch. 69-06-08. These criteria are discussed further below.

3.1 Exclusion Areas

Per NDAC 69-06-08-02(1), certain geographical areas shall be excluded in the consideration of a route for a transmission facility. 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. Refer to **Table 1, Summary of Exclusion Areas**.

Table 1, Summary of Exclusion Areas

Exclusion Area	Present within Project Corridor	Description	Section Addressed
Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; monuments; and wilderness areas.	None	Not Applicable (NA)	6.2
Designated or registered state: parks; historic sites; monuments; historical markers; archaeological sites; and nature preserves.	None	NA	6.2
County parks and recreational areas; municipal parks; and parks owned or administered by other governmental subdivisions.	None	NA	6.2
Areas critical to the life stages of threatened or endangered animal or plant species.	None	NA	6.15
Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.	None	NA	6.15

Areas within one thousand two hundred feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.	None	NA	6.2
Areas within thirty feet [9.14 meters] on either side of a direct line between an intercontinental ballistic missile (ICBM) launch facility and a missile alert or launch control facilities to avoid microwave interference. This restriction only applies to aboveground structures, not to surface features, such as roads, or belowground infrastructure.	None	NA	6.2

3.2 Avoidance Areas

Per NDAC 69-06-08-02(2), certain geographical areas may not be considered in the routing of a transmission facility unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an avoidance area should be designated for a facility, the commission may consider, among other things, the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative routes. Economic considerations alone will not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area will be included unless a distance is specified in the criteria.

Natural screening may be considered in determining the width of the buffer zone. Refer to

Table 2, Summary of Avoidance Areas.

Table 2, Summary of Avoidance Areas

Avoidance Area	Present within Project Corridor	Description	Section Addressed
Designated or registered national: historic districts; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.	None	N/A	6.2, 6.8

Designated or registered state: wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests; forest management lands; and grasslands.	None	N/A	6.2, 6.8
Historical resources which are not designated as exclusion areas.	None	No features were identified during the Class III Cultural Resource Survey	6.7
Areas that are geologically unstable.	None	N/A	6.11
Within five hundred feet [152.4 meters] of a residence, school, or place of business. This criterion shall not apply to a water pipeline transmission facility. This avoidance area may be waived by the owner.	None	N/A	6.1
Reservoirs and municipal water supplies	None	N/A	6.12
Water sources for organized rural water districts.	None	N/A	6.12
Irrigated land. This criterion shall not apply to an underground transmission facility.	None	N/A	6.9

Areas of recreational significance which are not designated as exclusion areas.	None	N/A	6.8
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3.3 Selection Criteria

Per NDAC 69-06-08-02(3), a corridor or route shall be designated only when it is demonstrated to the commission by the applicant that any significant adverse effects which will result from the location, construction, and maintenance of the facility as they relate to the following, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum. Please refer to **Table 3, Summary of Selection Criteria**.

Table 3, Summary of Selection Criteria

Selection Criteria	Potential Adverse Effects from Project	Section Addressed
The impact upon agriculture:		
(1) Agricultural production.	The Project would convert only a very small portion of agricultural land to substation use: approximately 16 acres.	6.2, 6.9
(2) Family farms and ranches.	The Project would comply with state setbacks. Siting would be compatible with surrounding farming and ranching practices.	6.9
(3) Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.	No adverse impacts are anticipated. The land is owned by Montana-Dakota and no irrigation is present.	6.10, 6.12
(4) Surface drainage patterns and ground water flow patterns.	No adverse impacts are anticipated.	6.12
The impact upon:		
(1) Sound-sensitive land uses.	There are no noise-sensitive land uses adjacent to the Project.	6.5
(2) The visual effect on the adjacent area.	There are no light-sensitive land uses adjacent to the Project.	6.6

(3) Extractive and storage resources.	There are no extractive or storage resources within the Project Corridor.	6.9
(4) Wetlands, woodlands, and wooded areas.	Approximately 400 feet of an existing tree row will be removed.	6.9, 6.12
(5) Radio and television reception, and other communication or electronic control facilities.	No adverse impacts are anticipated.	6.3
(6) Human health and safety	No adverse impacts are anticipated.	6.4
(7) Animal health and safety.	No adverse impacts are anticipated.	6.14
(8) Plant life.	Temporary and permanent vegetation impacts would occur during construction. Following construction, temporarily disturbed non-cultivated areas would be revegetated with a seed mixture free of noxious weeds, in accordance with Commission requirements. If impacts on trees and shrubs cannot be avoided, they would be replaced according to the Commission's tree and shrub mitigation specifications.	6.13

3.4 Policy Criteria

Per NDAC 69-06-08-02(4), the commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and practices. The commission may also give preference to an applicant that will maximize interstate benefits. The table below identifies those criteria and describes how Montana-Dakota's policies and practices are consistent with these policy criteria. Please refer to **Table 4, Summary of Policy Criteria**.

Table 4, Summary of Policy Criteria

Policy Criteria	Applicant's Policies and Practices	Section Addressed
Location and design	The location was selected to maximize use of land owned by Montana-Dakota and minimize additional infrastructure needs.	1.0, 2.2, 3, 3.5, 3.6, 4.2

Training and utilization of available labor in this state for the general and specialized skills required	Local contractors, suppliers, and laborers would be utilized for the Project, to the extent practical, during both construction and operations.	6.1, 6.3
Economies of construction and operation	The Project maximizes cost efficiency by expanding the existing substation in a single phase, using local contractors and in-state materials, and emphasizing streamlined construction and long-term operational reliability.	3.6
Use of citizen coordinating committees	Montana-Dakota has coordinated and would continue to coordinate with landowners and groups located within and near the Project Corridor.	1.2
A commitment of a portion of the transmitted product for use in this state	Energy from the Project will interconnect with the existing electrical grid, enhancing the reliability, capacity, and operational flexibility of the Ellendale 345kV Substation. The expansion also provides a redundant (backup) power source for the large load customer campus.	2.1
Labor relations	No impacts on labor relations are anticipated.	NA
The coordination of facilities	The Project location was selected with consideration of existing facilities and facility corridors.	3.5, 6.3, 6.4
Monitoring of impacts	Montana-Dakota will monitor construction using Best Management Practices (BMPs). During operation and restoration, Montana-Dakota will monitor the Project, assess impacts, and comply with all requirements outlined in the Certificate.	5.1, 5.2, 6.16
Utilization of existing and proposed rights of way and corridors	Utilization of land already owned by Montana-Dakota eliminates the need for additional rights of way or corridors.	1.0, 2.2, 3.6
Other existing or proposed transmission facilities	The Project location was selected with consideration of existing facilities and facility corridors.	1.0, 2.2, 3.6

3.5 Design and Construction Limitations

The Project design reflects a balance between operational requirements and physical, environmental, and regulatory constraints. Construction will be limited to areas within the existing Montana-Dakota-owned property to minimize land acquisition and to co-locate facilities near existing infrastructure.

Site conditions, including topography, soils, drainage, and proximity to existing infrastructure, influenced the layout and placement of electrical equipment. Safety and regulatory requirements, including NDPSC and NDAC siting standards, guided the selection of equipment spacing, setbacks, and protective measures to ensure safe construction and operation.

Environmental and seasonal constraints were also considered. BMPs will be applied throughout construction, including erosion control, stormwater management, and habitat restoration where needed. Access for oversized equipment and material deliveries will be coordinated with local agencies to minimize impacts on transportation networks.

Overall, the design and construction limitations ensure that the Project meets operational objectives while minimizing environmental, social, and safety impacts.

3.6 Economic Considerations

The Project has been planned to maximize economic efficiency while supporting regional economic development. Expanding the existing substation on Montana-Dakota-owned land avoids the need for additional land acquisition and leverages established infrastructure, reducing construction costs. Materials, including gravel and aggregate, will be sourced locally where feasible, and local contractors, suppliers, and labor will be utilized during construction and operations.

Short-term economic benefits will accrue to the region through employment, use of local goods and services, and increased economic activity during construction. Long-term benefits include improved reliability and operational flexibility of the Ellendale 345kV Substation, which supports critical facilities and reduces the potential economic impact of outages.

The Project schedule and design emphasize cost-effective construction and efficient long-term operations, ensuring that the facility meets energy delivery needs while minimizing unnecessary expenditures and maximizing value to both Montana-Dakota and the regional economy.

4. Description of Proposed Facility

4.1 Project Components

The Project will involve the installation of concrete foundations, two 230kV circuit breakers, ten 230kV disconnect switches, one 230kV line termination structure, associated arresters, Voltage Transformers, bus work, and protective relaying and controls required to support the circuit breakers.

4.2 Project Layout

Montana-Dakota has designed the Project to maximize compatibility with existing infrastructure, minimize the overall footprint and impacts to land use and sensitive areas, and comply with all applicable transmission facility corridor and route criteria outlined in NDAC 69-06-08. Applicable Project setbacks are summarized in **Table 5**.

Setback distances are measured from the closest Project Corridor boundary to the applicable feature, as defined by the Commission. The Project has been sited and designed to comply with all applicable setback requirements and is not located within any restricted setback areas.

The Project layout utilizes land owned by Montana-Dakota and is positioned adjacent to existing substation infrastructure to minimize the need for additional land disturbance and to maintain consistency with existing development patterns in the area.

Table 5, Setback Distances as Designated by the Commission

Setback Type	Required Distance	Source	Compliance
ICBM facility center	1,200 feet	NDAC 69-08-02	Project is not located within this setback
ICBM line	30 feet	NDAC 69-08-02	Project is not located within this setback
Residence, school or place of business	500 feet	NDAC 69-08-02	Project is not located within this setback

Pursuant to NDCC 49-22-16(2)(b), the Commission has express preemption over local zoning and land use regulations for electrical transmission facilities. Although local zoning and land use regulations are not applicable to the Project, the Project does meet the setbacks established by Dickey County's Ordinances dated April 21, 2026.

5. Project Construction, Operation and Decommissioning

5.1 Project Construction

The Project is anticipated to begin in 2026 upon Commission approval. Construction will begin with initial grading and placement of Class 5 gravel base. After grading, the perimeter fence will be installed, and all remaining work will occur within the fenced area. The remaining construction activities will include installation of foundations and physical structures such as structural steel, aluminum bus, strain bus, conduit, grounding, control cable and related components.

Construction is expected to result in approximately 16 acres of disturbance. The Project is estimated to be completed by December 2027.

5.2 Project Operation and Maintenance

Before the Project becomes fully operational, Operations and Maintenance (O&M) staff will be integrated with the construction team to ensure a seamless transition from construction to operation. O&M personnel will work closely with the construction manager to confirm that all systems are operational, safety protocols are in place, and ongoing maintenance requirements are clearly established.

5.3 Decommissioning and Restoration

The Project is expected to operate for the foreseeable future; however, if the facility is permanently retired, the Applicant would decommission the Project in accordance with applicable regulations in place at the time of decommissioning.

Following construction, temporary disturbance areas outside the permanent perimeter will be reseeded and stabilized using appropriate erosion control measures in accordance with applicable permits and regulatory requirements.

6. Environmental Analysis

This section describes the existing conditions within the Project Corridor and/or Study Area. As defined in **Section 1.2**, the Project Corridor includes the existing substation pad, as well as the area that would be impacted by the substation expansion, while the Study Area includes the Project Corridor plus a one-mile buffer. The Survey Area includes the surrounding property owned by Montana-Dakota that was assessed during the aquatic and cultural resource field surveys. Refer to **Exhibit 2, Project Corridor and Survey Area**, and **Exhibit 3: Study Area**, in **Appendix B**.

The existing conditions, or affected environment, represent the baseline conditions that may be influenced by the Project. This section discusses the potential direct environmental impacts of the Project and identifies potential indirect impacts where applicable within individual resource discussions. Measures to avoid, minimize, or mitigate impacts are discussed where appropriate.

Montana-Dakota's Policies and Commitments to Limit Environmental Impacts

Montana-Dakota is committed to operating in an environmentally responsible and proactive manner while considering cost impacts to customers. The Company has an overarching Environmental Policy that guides environmental compliance. The policy states:

“The Company will operate efficiently to meet the needs of the present without compromising the ability of future generations to meet their own needs. Our environmental goals are:

- To minimize waste and maximize resources;
- To be a good steward of the environment while providing high quality and reasonably priced products and services; and
- To comply with or surpass all applicable environmental laws, regulations and permit requirements.”

Building on this policy, the following sections provide detailed descriptions of individual environmental and social resources within the Project Corridor, including land use, vegetation, wildlife, water resources, cultural resources, and community infrastructure. For each resource, potential direct and indirect impacts of the Project are identified, and measures to avoid, minimize, or mitigate impacts are described where appropriate. This approach ensures that the Project's design, construction, and operation align with

Montana-Dakota’s commitment to environmental stewardship and regulatory compliance, while maintaining safe, reliable, and efficient energy delivery.

6.1 Demographics

The Project is located in Ellendale township within Dickey County, approximately 2 miles northwest of the city of Ellendale.

Please refer to **Table 6, Demographic Trends**, for population, income, and poverty information for Dickey County compared to North Dakota. Major employment industries within Dickey County include educational services, and healthcare and social assistance; agriculture; retail trade; construction; and manufacturing (U.S. Census Bureau, American Community Survey, 2023).

Table 6, Demographic Trends

Community	Population	Per Capita Income	Percent of People Below Poverty Level
Dickey County	4,999	40,260	10.8
North Dakota	779,094	45,281	11.1

6.1.1 Demographic Impacts/Mitigation

The Project would not require relocation of any residences. The Project Corridor is sited to avoid all residences, schools, and businesses by at least 500 feet.

The Project is designed to provide socioeconomic benefits to local governments and communities. Construction activities could generate temporary economic gains through the purchase of fuel, materials, and general supplies.

No mitigation measures are required.

6.2 Land Use

The Project is located on land consisting of cropland and wetlands.

Coordination with the U.S. Fish and Wildlife Service (USFWS) confirmed that no wetland or grassland easements are present within the Project Corridor. The nearest National Wildlife Refuge (NWR) is the Maple River NWR, 8 miles northeast, and the nearest Waterfowl Production Area (WPA), the Heine WPA, is 2.5 miles west-northwest.

No Private Land Open to Sportsmen (PLOTS) areas, North Dakota Game & Fish Department (NDGFD) Wildlife Management Areas (WMAs), North Dakota Department of Trust Lands

(NDDTL) land, North Dakota Parks and Recreation Department (NDPRD) land, Conservation Reserve Program (CRP) or U.S. Department of Agriculture–Natural Resources Conservation Service (USDA-NRCS) easements, or U.S. Department of Defense (USDOD) assets occur within the Project Corridor. The nearest WMA (Bluestem Prairie WMA) is 5 miles northeast, and the nearest North Dakota Trust Lands are 1.5 miles north.

Agency coordination letters from the USFWS, NDGFD, and NDPRD can be reviewed in **Appendices C and D**.

The Project is located adjacent to existing utility and commercial infrastructure and is consistent with surrounding land uses.

6.2.1 Land Use Impacts/Mitigation

The Project will result in approximately 16 acres of disturbance associated with the substation expansion. The disturbance will occur within an existing developed utility setting and is not expected to alter long-term land use in the area.

The Project will comply with applicable regulations. Conflicts with state, local, or private development plans are not anticipated. No mitigation measures are required.

6.3 Public Services

Air Traffic

The nearest public airport to the Project Corridor is the Ellendale Municipal Airport located approximately 2.5 miles east. Given the presence of existing electrical infrastructure adjacent to the site, the Project is not anticipated to impact air traffic or aviation safety. In their response to the scoping letter, the North Dakota Aeronautics Commission stated that they do not anticipate the Project to have a detrimental impact on aviation in the Ellendale area, however, they recommend that an airspace case be submitted with the Federal Aviation Administration (FAA) to ensure no infrastructure results in airspace conflicts. This recommendation stems from the Federal Aviation Administration requirement found in 14 CFR § 77.9(b) that mandates the FAA be notified of projects with infrastructure reaching certain heights.

Transportation

In response to a scoping letter, the North Dakota Department of Transportation (NDDOT) stated that the Project is not expected to adversely affect NDDOT highways. Please refer to **Appendices C and D**, for a copy of the correspondence. There are no airports or landing strips within the Study Area.

Water Supply

No public water supply infrastructure, including water lines or wells, are known to occur within the Project Corridor.

Communications

There are no communication facilities such as towers, cell sites, microwave links, or AM/FM broadcast infrastructure located within the Project Corridor; however, there are two towers within the Study Area. One cellular AT&T tower is located approximately 0.1 miles northeast and one TV tower is approximately 0.7 miles southeast of the Project Corridor.

6.3.1 Public Service Impacts/Mitigation

Air Traffic

Given the existing electric transmission infrastructure within and adjacent to the Project Corridor, it is not anticipated that the Project would impact aviation operations or the Ellendale Municipal Airport.

Communications

Coordination with utility companies is ongoing to determine locations and potential for direct impacts. Impacts would be avoided or minimized to the extent practicable, with relocations coordinated as needed. The Project would not directly impact the communication towers located within the Study Area.

6.4 Human Health and Safety

Electromagnetic Fields

Transmission lines and transformers generate electromagnetic fields (EMFs), which consist of electric fields produced by voltage and magnetic fields produced by current flow. EMF intensity decreases rapidly with distance from the source. Existing electrical infrastructure near the Project Corridor produces EMFs at levels typical of utility facilities.

Hazardous Waste

There are no known United States Environmental Protection Agency (USEPA) regulated hazardous waste facilities within the Study Area. The nearest facility to the Study Area is located approximately 2 miles northeast and is listed as inactive. No recent environmental incidents or evidence of historical contamination have been identified within the Project Corridor. There are no known underground storage tanks (USTs) or landfills within the

Project Corridor (North Dakota Department of Environmental Quality [NDDEQ], 2025; NDDEQ, 2025a; NDDEQ, 2025b).

Construction of the Project is not expected to generate any hazardous waste.

Security

The Study Area is located in a rural setting with some existing secured facilities, security lighting, and controlled access infrastructure including the existing Ellendale 345kV Substation and a large load customer campus. Land uses in the Study Area consist of a mix of electrical infrastructure, the large load customer campus, cropland, and undeveloped land. There are no residences or commercial buildings within the Project Corridor. Emergency response services (law enforcement, fire, emergency medical services) are based in the city of Ellendale, approximately 2 miles southeast of the Project Corridor. No security incidents or concerns specific to the Project Corridor have been identified.

6.4.1 Human Health and Safety Impacts/Mitigation

Electromagnetic Fields

The Project would generate EMFs consistent with those produced by existing substations and transmission infrastructure in North Dakota. EMF levels decrease rapidly with distance. No residences or public facilities occur within 500 feet of the Project Corridor, and the site is not accessible to the public. Therefore, EMF exposure to the general public is not anticipated. Standard design practices, including appropriate grounding, equipment spacing, and compliance with industry safety codes, would further minimize EMF levels. No additional mitigation is required.

Hazardous Waste

No permanent or temporary impacts from hazardous waste are anticipated and therefore, no mitigation is proposed.

Security

Construction of the Project would temporarily increase activity in an otherwise rural setting. To maintain site safety, temporary construction fencing, signage, and access controls would be implemented as needed. During operation, the expanded substation would be enclosed within permanent security fencing with locked, controlled-access gates consistent with industry standards. Routine O&M presence and remote system monitoring would further reduce the potential for trespass or vandalism. The Project is not anticipated

to adversely affect community safety or place additional demands on local law enforcement or emergency services. No additional mitigation is proposed.

6.5 Sound

Existing sound levels within the Study Area are characteristic of a rural agricultural setting. Primary noise sources include farm equipment, local roadway traffic, and operational noise from the existing Ellendale 345kV Substation. Ambient sound levels in similar rural environments typically range from approximately 34 to 41 A-weighted decibel (dBA) (National Park Service, 2021).

6.5.1 Sound Impacts/Mitigation

An increase in sound levels would occur during the construction phase of the Project and would vary by activity and equipment type. Noise would be intermittent and generally limited to daylight hours. Once operational, the substation expansion will generate relatively low frequency noise from the transformers (commonly referred to as corona noise), as well as intermittent sounds from cooling fans, oil pumps, and circuit breakers. These operational sounds would be minimized through adherence to standard industry design practices. While the Project would introduce additional sound to the area, the increase is expected to be minimal relative to existing background levels and is unlikely to be noticeable beyond the immediate vicinity.

6.6 Visual

Visual resources within the Study Area include relatively flat agricultural fields, shelterbelts, wetlands, roadways, farmsteads, two communication towers, transmission and distribution lines, the existing substation, and a large load customer campus. The area exhibits a mix of rural landscape and modern utility infrastructure. There are no designated or protected visual resources within or adjacent to the Study Area.

6.6.1 Visual Impacts/Mitigation

The Project is expected to introduce minor visual changes to the area due to the expansion of the existing substation and associated infrastructure. The degree of visual impact would vary depending on the viewer's location and perspective; however, the expanded facility would remain consistent with the existing utility and industrial character of the surrounding area.

Limited additional lighting would be installed as part of the substation expansion to support safe operations. These lights would be used infrequently and only as needed during nighttime operations and maintenance activities. Given the minimal use and the

presence of existing lighting at the substation and adjacent facilities, visual impacts associated with lighting are anticipated to be negligible.

6.7 Cultural and Archaeological Resources

A Class I and Class III cultural resource investigation for the Project was conducted in 2025.

Class I Investigation: A records search was conducted on September 11, 2025. This review examined site files and survey reports maintained by the North Dakota State Historic Preservation Office (SHPO) for the Study Area. No previously documented cultural resources were identified.

Class III Investigation: An intensive pedestrian survey of the 16-acre Area of Potential Effects (APE) corresponding to the Survey Area west of the existing substation, was conducted on September 15, 2025. No cultural resources were identified within the surveyed area.

Coordination with the State Historical Society of North Dakota (SHSND) was conducted under Reference No. 26-0038. SHSND indicated that no significant cultural resources would be affected by the Project provided that construction occurs in the location and manner described in the application materials.

SHSND also noted that this review does not constitute formal consultation under Section 106 of the National Historic Preservation Act. Montana-Dakota will continue to coordinate with SHSND as necessary to ensure compliance with applicable cultural resource requirements.

Refer to **Appendix E, Class III Cultural Resource Inventory**, and **Appendices C and D**, for additional information and correspondence.

6.7.1 Cultural and Archaeological Resources Impacts/Mitigation

The Project is not expected to impact any known cultural or archaeological resources within the surveyed APE, as none were identified during the Class I and Class III investigations.

Based on coordination with SHSND, no significant sites are anticipated to be affected by the Project as proposed.

To ensure protection of cultural resources, Montana-Dakota commits to the following measures;

- Construction will be limited to areas that have been previously surveyed and evaluated for cultural resources;
- Montana-Dakota will not initiate ground-disturbing activities in any areas that have not been surveyed or reviewed by SHSND;
- Construction personnel will receive pre-construction training regarding the potential for encountering cultural materials;
- In the event that previously unidentified cultural or archaeological resources are encountered during construction, work will be immediately halted in the vicinity of the discovery and SHSND will be notified; and
- Any discoveries will be evaluated and addressed in coordination with SHSND and qualified cultural resource professionals in accordance with applicable state and federal requirements.

With implementation of these measures, no significant adverse impacts to cultural resources are anticipated.

6.8 Recreational Resources

There is no land within the Project Corridor currently utilized for recreational purposes as the property is owned by Montana-Dakota and not open to the public. No publicly accessible recreational land occurs within the Study Area either. The nearest public recreation lands are the Heine WPA, located approximately 2.5 miles west-northwest, and lands managed by the NDDTL, located approximately 1.5 miles north of the Project Corridor.

6.8.1 Recreational Resources Impacts/Mitigation

The Project would not directly impact recreational resources, as no publicly accessible lands occur within the Project Corridor or Study Area. Construction activities would be limited to Montana-Dakota-owned property and would not encroach upon nearby public recreational lands. No mitigation measures are required.

6.9 Effects on Land-based Economics

Agriculture

There are approximately 423 farms in Dickey County. Crop sales (e.g., grains, oilseeds, dry beans, dry peas) make up most of the market value (85 percent) with the remainder from livestock (e.g., cattle, bees, sheep, horses, bees) sales (15 percent). The market value of

products sold in Dickey County is \$269.7 million, with averages per farm being approximately \$638,000 (USDA, 2022).

Woodlands

A single-row, deteriorating shelterbelt, approximately 400 feet in length, would be removed within the Project Corridor. Approximately 58 deciduous trees are located within this shelterbelt and would be removed as part of Project construction.

The Project's Tree and Shrub Mitigation Specifications attached to its July 10, 2014 Order provides "[t]he maximum width of clear cuts through windbreaks, shelterbelts and all other wooded areas is 50 feet, unless otherwise approved by the Commission." Montana-Dakota respectfully requests the Commission authorize clearance greater than 50 feet in width for the shelterbelt located in the southeast corner of the Survey Area, as shown on ***Exhibit 2 Project Corridor and Survey Area***, to accommodate site constructability and safe operation of the facility.

Extractive and Storage Resources

No extractive or storage resources occur within the Study Area.

6.9.1 Land Based Economics Impacts/Mitigation

Agriculture

The Project would result in permanent and temporary conversion of agricultural lands. Approximately 16 additional acres of existing cultivated land would be permanently converted by the substation expansion. No irrigated land is present within the Project Corridor.

Woodlands

No economic impact on these resources is anticipated.

Extractive and Storage Resources

No economic impact on these resources is anticipated.

6.10 Soils

Three soil map units are present within the Project Corridor: Wyndmere-Tiffany fine sandy loams (0–2% slopes), Clontarf fine sandy loam (2–6% slopes), and Swenoda-Barnes fine sandy loams (0–3% slopes). These soils are predominantly well-drained sandy loams with low hydric potential. Depth to the seasonal high water table ranges from approximately 76

to 122 centimeters, and none of the mapped units are prone to flooding or ponding. The Swenoda-Barnes unit comprises the majority of the corridor (55.1%), followed by Wyndmere-Tiffany (32.4%) and Clontarf (12.5%)(USDA, 2025). Refer to **Exhibit 4, Soil Map**, in **Appendix B**.

6.10.1 Soils Impacts/Mitigation

The Project would impact soils during construction activities. Soils disturbed by construction would be prone to erosion, and operation of heavy equipment could compact soils. BMPs would be implemented to minimize impacts on soils, such as:

- Erosion and sediment control measures.
- Segregating topsoil from subsurface materials.
- Reseeding and restoration of disturbed areas;
- Use of appropriately sized construction equipment.
- Aligning access roads with the natural terrain.
- Proper on-site disposal of excess soil.
- Maintaining proper drainage.

With implementation of these measures, impacts to soils would be temporary and minor, and the Project is anticipated to have a negligible effect on agricultural productivity.

6.11 Geologic and Groundwater Resources

Surface geology within the Study Area is part of the Coleharbor Group, a Pleistocene sediment up to 30 meters thick. The Coleharbor Group consists of glacially deposited till, sand and gravel, and silt and clay. Landforms in the area, including the “pothole” topography, were formed by the collapse of glacial sediment as glaciers melted approximately 12,000 years ago (Bluemle 1979).

No mapped aquifers or water wells occur within the Project Corridor. There are no sole source aquifers within or near the Study Area (North Dakota Department of Water Resources [NDDWR], 2025; USEPA, 2025a).

6.11.1 Geologic and Groundwater Impacts/Mitigation

The Project is not expected to result in impacts to geologic or groundwater resources.

As described in Section 6.11, the Study Area is underlain by glacial deposits of the Coleharbor Group, consisting primarily of till, sand and gravel, and silt and clay. Review of available data from the North Dakota Geological Survey (NDGS) and other state sources indicates that no geologic hazards, such as unstable slopes, landslides, or areas of

subsidence, are present within the Project Corridor or Study Area. The relatively flat topography and stable glacial deposits are not conducive to geologic instability.

The Project does not involve excavation or activities of a depth or scale that would be expected to affect underlying geologic formations. No blasting, deep foundation work, or other activities that could alter geologic conditions are anticipated.

Groundwater resources are also not expected to be impacted by the Project. No aquifers or water wells have been identified within the Project Corridor, and construction activities will be limited to shallow surface disturbance associated with substation expansion. Standard construction practices will be implemented to prevent contamination of surface and subsurface resources.

Based on these conditions, the Project is not anticipated to result in adverse impacts to geologic or groundwater resources. No mitigation measures are required.

6.12 Surface Water, Wetlands, and Floodplain Resources

The Study Area is located within the James Basin, whereby surface water flows toward the James River, and is situated within the Prairie Pothole Region, which is characterized by grasslands and cropland punctuated by a multitude of shallow depressional wetlands. These pothole wetlands provide habitat for over half of North American waterfowl during migration, provide hunting and wildlife viewing opportunities, and regulate flooding by storing runoff water (USEPA, 2025b).

A field aquatic resource delineation was conducted on September 12, 2025, for the Survey Area directly west of the existing Ellendale 345kV substation. Four wetlands were delineated within the Survey Area, totaling approximately 6 acres. Refer to **Appendix F, Aquatic Resources Delineation Report**. Wetlands identified on the USFWS National Wetland Inventory (NWI) and aquatic resource delineation conducted for the Project are shown on **Exhibit 5, Surface Waters and Wetlands**, in **Appendix B**.

No wetland basins within the Project Corridor are protected by USFWS wetland easements as discussed in **Section 6.2**. In addition, Section 404 of the Clean Water Act (CWA) regulates discharges into waters of the U.S. (i.e., wetlands and other waters under the jurisdiction of the U.S. Army Corps of Engineers (USACE), with Section 401 regulating water quality. In their response to an Approved Jurisdictional Determination request, the USACE determined that the wetlands delineated during the field wetland delineation are all non-jurisdictional. Please refer to **Appendices C and D**, for a copy of the correspondence.

The Project Corridor occurs in an area mapped by the Federal Emergency Management Agency (FEMA); however, Flood Insurance Rate Maps (FIRMs) have not been printed for the Project Corridor. The unprinted area within the Project Corridor occurs within Zone X. Zone X (unshaded) indicates an “area of minimal flood hazard, usually depicted...as above the 500-year flood level.” A permit from local (i.e., county) floodplain administrators is required for development within special Flood Hazard Areas; however, Zone X is not considered a special Flood Hazard Area (FEMA, 2025; French & Associates, Ltd., 1998).

In response to comments received from the NDDWR during scoping, the Dickey County floodplain administrator was consulted regarding potential floodplain permitting requirements for the proposed Project. During this coordination, the county confirmed that the only mapped floodplain areas within Dickey County occur on the east side of the county, that there are no floodplain concerns, and additional floodplain coordination is not required. Refer to **Appendix C** for copies of agency correspondence and coordination documentation.

No dams or reservoirs for private, organized rural water districts, or municipal water supply occur within the Project Corridor.

6.12.1 Surface Water, Wetlands, and Floodplain Resources Impacts/Mitigation

The Project will avoid and minimize direct and indirect impacts on wetlands and surface water to the maximum extent practicable. Existing drainage patterns would be maintained. It is not anticipated that waterbodies would be drained or that waters of the state would be appropriated. Should these activities become necessary during construction or O&M activities, the applicable permit(s) from the NDDWR would be obtained. CWA permitting is not anticipated as the USACE determined all wetlands to be non-jurisdictional.

Indirect impacts on water quality are unlikely. The Applicant will obtain coverage under a Stormwater Pollution Prevention Plan (SWPPP) prior to construction and will implement all associated conditions. Implementation of the SWPPP will minimize the potential for transport of stormwater from construction areas to nearby waters.

Post-construction runoff will be managed through construction of a retention basin along the western edge of the Project Corridor. The basin will be designed to capture runoff from the expanded impervious area and maintain existing drainage conditions and applicable stormwater standards. The Project is not anticipated to result in offsite drainage modifications or diversion of water beyond existing drainage patterns.

The Project is not anticipated to adversely impact dams. Should impacts on dams become necessary during construction or O&M activities, coordination with the NDDWR and affected landowners would occur.

6.13 Vegetation

The upland portions of the Project Corridor are dominated by alfalfa, while the wetlands are primarily dominated by foxtail barley, reed canary grass, and fowl bluegrass. No rare, threatened, or endangered plant species have been documented within the Project Corridor, please refer to correspondence from NDPRD in **Appendices C** and **D**.

6.13.1 Vegetation Impacts/Mitigation

As discussed in **Section 6.2**, the Project would result in permanent and temporary impacts to cropland, grassland, trees and wetlands. Approximately 58 deciduous trees are located within this shelterbelt and would be removed as part of Project construction. Temporarily disturbed areas will be returned to cultivation or re-vegetated with a grassland seed mixture consistent with surrounding vegetation and free of noxious weeds.

The Dickey County Weed Board was consulted about weed management requirements. During coordination, the Weed Board indicated that it does not maintain a formal Weed Management Plan or require submission and approval of a project-specific weed management plan. The Weed Board recommended maintaining annual weeds and keeping the project area free of noxious weeds during construction and operation. The Project Corridor would be monitored and maintained in accordance with applicable state and county weed control requirements. Refer to **Appendix C** for coordination documentation.

6.14 Wildlife

Avian Species

The Project occurs within the Central Flyway, a major migration route for over 400 species of birds across the Great Plains (Johnsgard, 2012). Migratory birds and eagles are protected by the Migratory Bird Treaty Act (MBTA) and Bald and Golden Eagle Protection Act (BGEPA), which prohibits harming these species, their nests, or eggs without a permit.

No federally listed endangered or threatened avian species have been documented specifically within the Study Area; species protected under the Endangered Species Act (ESA) are discussed in Section 6.15. The Project Corridor contains a mix of wetlands, and cropland habitats that provide potential foraging and resting areas for migratory birds.

Mammalian Species

The Study Area contains wildlife habitat including grassland, and prairie pothole wetlands. Common mammals that may occur include several bat species; carnivores such as badgers, coyotes, long-tailed weasels, raccoons, and red fox; various rodents and shrews; and ungulates such as white-tailed deer.

The Study Area occurs within primary, secondary, or potential ranges for several non-volant (i.e., not able to fly or glide) mammalian species of greatest conservation need (SGCN): arctic shrew, plains pocket mouse, Richardson's ground squirrel, and river otter (NDGFD, 2025; NDGFD, 2025a).

6.14.1 Wildlife Impacts/Mitigation

Avian Species

The Project would avoid direct impacts to known migratory bird or raptor nests. Any previously unknown leks or raptor nests discovered during construction activities would also be avoided. Permanent impacts to avian species will be minimized by the Applicants incorporating relevant Avian Power Line Infrastructure Committee (APLIC) suggested practices throughout construction, operation, and maintenance of the Project to minimize and mitigate potential impacts to avian species.

Mammalian Species

Non-volant mammals may be temporarily or permanently displaced by construction activities, including ground disturbance, heavy equipment operation, and increased human presence. Given the regional abundance of suitable habitat within the Study Area and the lack of specialized habitat within the Project Corridor, these displacements are not expected to result in population-level impacts.

Bat Species

Based on the low amount of forested habitat impacted by the Project, and no known hibernacula within the Corridor, impacts to bat species are anticipated to be negligible. No collision risk associated with the Project is anticipated.

6.15 Rare and Unique Natural Resources

Natural Heritage Inventory

A query of the North Dakota Natural Heritage Program biological conservation database, conducted by the NDPRD, indicates no documented occurrences of plant or animal

species of concern, or significant ecological communities, within or immediately adjacent to the Study Area. See **Appendices C** and **D**.

Endangered Species Act

Section 10 of the ESA prohibits non-federal activities that may affect species and their critical habitats listed under the ESA unless a permit is granted by the USFWS.

The USFWS Environmental Conservation Online System – Information for Planning and Conservation (ECOS-IPaC) identified the following federally protected resources that may occur within the Study Area: whooping crane (endangered), monarch butterfly (proposed threatened), Suckley’s cuckoo bumble bee (proposed endangered), and western regal fritillary (proposed threatened). These resources are addressed individually in the subsections below. Please refer to **Appendix G, USFWS Resource List**.

Whooping Crane (*Grus americana*)

Whooping cranes are documented annually in North Dakota during spring and fall migrations. During migration, the whooping crane’s preferred stopover habitat are wetlands and cropland for roosting and feeding. They commonly utilize seasonal, semi-permanent wetlands with shallow water. Open areas without visual obstructions are preferred over heavily vegetated wetlands (Canadian Wildlife Service [CWS] and USFWS 2007). Whooping cranes have been recorded in riverine habitats (USFWS 2021). Feeding and roosting sites are typically less than 0.6 miles apart but can occasionally be separated by more than 5 miles (USFWS 2021). On average, migrating whooping cranes avoid roads by approximately 0.3 miles and avoid human habitation by approximately 0.8 miles (Lewis and Slack 2008).

Cropland fields that could provide foraging habitat occur within the Study Area. Palustrine wetlands occur within the Study Area as well. However, all the aquatic resource features within the Project Corridor are heavily vegetated and lack sufficient visibility that is preferred by the whooping crane, due to adjacent tree rows and utility infrastructure. The Study Area is located in the whooping crane migration corridor where 95 percent of sightings are confirmed. Historic records indicate few recorded whooping crane sightings in the vicinity of the Project. Please refer to **Exhibit 6, Whooping Crane Observations**, in **Appendix B**.

Monarch Butterfly (*Danaus plexippus*)

The monarch butterfly is currently proposed for listing as a threatened species under the ESA. The fall migration corridor for Monarchs east of the Rocky Mountains primarily include

traveling from southern Ontario and the Midwest states, southwest through Kansas, Missouri, Oklahoma, Arkansas, Texas, and ultimately reaching northern Mexico (Davis and Howard 2005).

Monarchs stay in their winter habitat until alterations in environmental conditions prompt the butterflies to exit diapause, initiate mating, and journey north to commence their breeding cycles anew (Oberhauser and Frey 1997). Breeding adults typically only live for two to five weeks. As a result, the timing of spring remigration must be synchronized to allow females to deposit their eggs on newly emerged milkweed species, ensuring the progression of successive generations moving north and east (Davis and Howard 2005). The primary colonization of monarchs in the Midwest and northern regions occurs during the month of June (Cockrell et al. 1993; Davis and Howard 2005; Flockhart et al. 2013).

Monarch habitat is contingent on the availability of appropriate milkweed species. Monarchs utilize the toxic substance present in milkweeds, which acts as a deterrent to herbivores, as their own defense mechanism. Typically, females refrain from laying eggs on any other species, and monarch caterpillars do not consume leaves from any other plants (Brower 1984).

Some milkweed plants were observed within the Survey Area during the wetland mapping survey, which is typical of wetland margins in the region.

Suckley's Cuckoo Bumble Bee (*Bombus suckleyi*)

The Suckley's cuckoo bumble bee is currently proposed for listing as an endangered species under the ESA. The bee's range was once widespread across the northern United States and into Canada. The bee is a social parasite that is found most often to rely on depredation of the nests of the western bumble bee (*Bombus occidentalis*) for survival and the rearing of young (Bell and Tronstad 2021). The bee's population decline may therefore be related to the decline of one of their primary host species populations. Along with the decline of its host species, the Suckley's cuckoo bumble bee is threatened by habitat loss and fragmentation.

The Suckley's cuckoo bumble bee's specific habitat needs are not well known but are assumed by the USFWS to be similar to other cuckoo bumble bees and bumble bees in general, suggesting that they require a diverse selection of native forbs (USFWS 2024a).

Western Regal Fritillary (*Argynnis idalia occidentalis*)

The western regal fritillary is commonly located in tall-grass prairies and other native prairie environments. Native plants serve as the preferred food source, and native violets are essential for the larvae. The main reasons for the decline in this species are the depletion of native habitats, particularly those that contain violets, through herbicide use, periodic disturbances (USFWS 2023), grassland conversion, invasive plant species, and drought (USFWS 2024b). The species can best be observed during their adult flight period which extends from late June through August.

The western regal fritillary depends on large tracts of high-quality native habitat. Violets, native warm season bunchgrasses, and nectar sources, are of particular importance (USFWS 2023). The Project Corridor is primarily cropland, with no tracts of native upland grasses.

6.15.1 Rare and Unique Natural Resources Impacts/Mitigation

Natural Heritage Inventory

The Project is not expected to impact any plant or animal species of concern or significant ecological communities.

Endangered Species Act

The Project is not expected to adversely affect any ESA-listed species or their designated critical habitats.

Whooping Crane

No suitable foraging or roosting habitat occurs within the Project Corridor, and existing adjacent development would deter the species. Construction and operation activities are not expected to disturb migratory pathways. Adverse impacts to the species are not anticipated.

Monarch Butterfly

Milkweed, the primary larval host plant, is minimally present within the Project Corridor. No loss of suitable monarch habitat is anticipated. Adverse impacts to the species are not anticipated.

Suckley's Cuckoo Bumble Bee

Suitable nesting or foraging habitat for the Suckley's cuckoo bumble bee is not present within the Project Corridor. Adverse impacts to the species are not anticipated.

Western Regal Fritillary

Violets, the larval host plant, are absent from the Project Corridor. The Project is not expected to reduce habitat availability for this species. Adverse impacts to the species are not anticipated.

6.16 Summary of Impacts

Please refer to **Table 7, Summary of Impacts and Mitigation**.

Table 7, Summary of Impacts and Mitigation

Resource Category	Potential Impact	Proposed Mitigation
6.1 Demographics	Temporary increase in local business demand from workforce. Economic benefits anticipated.	No long-term impacts. No mitigation is proposed.
6.2 Land Use	Permanent conversion of approximately 16 acres of existing land uses.	No mitigation is proposed.
6.4 Human Health and Safety	EMFs associated with the Project decrease rapidly with increasing distance from the source. No impacts to human health and safety from EMFs are anticipated	No mitigation is proposed.
6.5 Sound	Temporary construction noise; low-level operational transformer/corona noise	Limited to daylight hours; industry design standards minimize noise; minimal perceptible change from baseline.
6.6 Visual	Permanent visual and aesthetic impacts are anticipated to be similar to what exists currently.	Impact varies by viewer; no specific mitigation; lighting limited to operational needs.
6.7 Cultural and Archaeological Resources	No impacts anticipated.	Standard procedures will be followed to avoid inadvertent discoveries during construction.
6.8 Recreational Resources	No impacts anticipated.	No mitigation is proposed.
6.9 Land Based Economics	Permanent conversion of approximately 16 additional acres of existing land uses.	No mitigation is proposed.

6.10 Soils	Soil disturbance, compaction, erosion.	BMPs such as erosion and sediment control, segregating topsoil, reseeding of disturbed areas, use of appropriately sized construction equipment, proper on-site disposal of excess soil, and maintaining proper drainage.
6.11 Geologic and Groundwater Impacts	No impacts to geologic or groundwater resources are anticipated.	No mitigation is proposed.
6.12 Surface Water, Wetlands, and Floodplain Resources	Potential direct impacts to wetlands and indirect impacts on water quality due to ground disturbance and use of hazardous materials.	Conditions of the SWPPP would minimize the transport of stormwater from construction areas; implementation of a SPCC plan if over 1,320 gallons of petroleum products would be stored on site. No wetland mitigation is required.
6.13 Vegetation	Temporary and permanent removal of non-cultivated vegetation.	Revegetation, invasive species management, minimize clearing
6.14 Wildlife	Habitat loss and degradation, habitat fragmentation, displacement and behavioral changes, increased predator populations, and/or introduction of invasive vegetation; potential collision of avian and bat species with transmission lines.	Avoid known nests. BMPs. No population-level effects due to abundant regional habitat.
6.15 Rare and Unique Natural Resources	No adverse impacts anticipated.	No mitigation proposed.

7. Identification of Potential Permits/Approvals

Please refer to **Table 8, Potential Permits/Approvals**, for a list of potential federal and state permits associated with construction and operation of the Project.

Table 8, Potential Permits/Approvals

Agency	Permit/Approval	Applicability	Status and Timing
USFWS	Coordination/permitting pursuant to ESA Section 10	Non-federal activities affecting resources protected under the ESA.	Coordination ongoing; no permits anticipated.
NDPSC	Amended Certificate of Corridor Compatibility	Construction of electric transmission facility.	To be obtained prior to construction.
NDDEQ	General Permit for Stormwater Discharge Related to Construction (SWPPP)	Construction activities with disturbances greater than one (1) acre.	To be obtained prior to construction.
	Section 401 Water Quality Certification	Discharge into waters of the U.S.	To be obtained prior to construction, if necessary, unless waived.
FAA	Obstruction Evaluation/Airspace Review	Potential, if triggered.	To be obtained prior to construction.

8.0 Factors Guiding the Commission

The Siting Act (see NDCC 49-22-09) lists the factors in the following subsections as those that guide the Commission in evaluating applications and designations of corridors.

8.1 Available Research and Investigations pertaining to Public Health and Welfare, Natural Resources, and the Environment

Available research and investigation were utilized throughout Section 6.0 to assess the effects of the Project on public health and welfare, natural resources, and the environment. Project-specific research and investigation reports include: Aquatic Resources Delineation Report and Class III Cultural Resource Inventory. Refer to **Appendices D and E**.

8.2 New Energy Conversion Technologies and Systems

The Project has utilized or will utilize the most current technologies and systems available to site, construct, and operate the Project while minimizing potential adverse environmental effects.

8.3 Potential for Beneficial Uses of Waste Energy

The Project is not anticipated to generate waste energy. As such, there would be no use of waste energy, beneficial or otherwise, associated with the Project.

8.4 Unavoidable Direct and Indirect Environmental Effects

Unavoidable adverse direct and indirect environmental effects are discussed throughout **Section 6.0**, with a summary of impacts and associated mitigation measures provided in **Section 6.16**.

8.5 Alternatives to the Proposed Site

Alternatives to the Project are discussed in **Section 2.2**.

8.6 Irreversible and Irretrievable Commitment of Natural Resources

The Project would result in the irreversible and irretrievable commitment of resources due to utilization of construction materials (e.g., concrete, steel, aggregate) as well as hydrocarbon fuel consumed by construction equipment and vehicles transporting workers and materials to and from the Project. Consumption of materials and fuel during operation and maintenance of the Project would be minor. Some of the resources utilized during construction may be reclaimed upon decommissioning of the Project (e.g., steel); however, consumption of most of these resources would be irreversible and irretrievable. The resources that would be utilized are not in short supply and their use would not have an adverse effect on their overall availability.

8.7 Direct and Indirect Economic Impacts

Direct and indirect impacts and mitigation associated with demographics and land-based economics are discussed in **Section 6.1** and **Section 6.9**, respectively.

8.8 Existing Development Plans

Known land use plans and considerations applicable to development within and adjacent to the Study Area are discussed in **Section 6.2**.

8.9 Scenic Areas, Historic Sites and Structures, and Paleontological or Archaeological Sites

The effect of the Project on visual (including scenic areas), cultural and archaeological (including historical sites and structures), and paleontological resources are discussed in **Section 6.6**, **Section 6.7**, and **Section 6.11**, respectively.

8.10 Areas of Unique Biological Wealth or Habitats for Rare and Endangered Species

The effect of the Project on rare and unique natural resources is discussed in **Section 6.15**.

8.11 Problems Raised by Federal, State, and Local Entities

Comments from Federal, State and Local Entities are summarized in **Section 9.0** and have been referenced and incorporated throughout this Application where appropriate.

9. Agency Comments/Coordination

On October 28, 2025, a scoping package was distributed to 34 local, state, and federal agencies pursuant to NDAC 69-06-01-05. This scoping package included information on the Project and a project location map. Please refer to **Appendix C**, for the scoping letters, mailing list, and responses.

A second scoping package was distributed to the same agencies on March 3, 2026. This supplemental package provided further refined details regarding the Project, specifically the boundary of the Project Corridor. These comments, which are summarized below, have been referenced and incorporated where appropriate within the document. Please refer to **Appendix D**, for the scoping letters, mailing list, and responses.

Montana-Dakota coordinated with City of Ellendale and Dickey County officials to provide notice and discuss the Project.

9.1 North Dakota Geological Survey

In an email dated November 6, 2025, the North Dakota Geological Survey (NDGS) suggested the Study Area being located on top of approximately 50 feet of clayey glacial till overlaying shallow shale bedrock of the Pierre Formation.

9.2 U.S. Army Corps of Engineers, North Dakota Regulatory Office

In an email dated November 6, 2025, the USACE stated that the jurisdictional determination sent on October 24, 2025, sufficiently covered any USACE interests in the Study Area.

In an email dated March 23, 2026, the USACE stated that their previous response had already reviewed all wetlands and restated that there are no jurisdictional waters in the Project Corridor.

9.3 North Dakota Game & Fish Department

In a letter dated November 21, 2025, the NDGFD stated that measures should be taken to protect drainage patterns and any unavoidable wetlands. NDGFD also stated that “any unavoidable destruction or degradation of wetland acres should be mitigated in kind.” NDGFD did not anticipate any significant adverse effects on wildlife or habitat if these measures are followed.

In an email dated March 30, 2026, the NDGFD stated that they had no additional concerns and all original comments remain applicable.

9.4 North Dakota Department of Transportation

In a letter dated November 20, 2025, the NDDOT stated that the Project should have no adverse effect on NDDOT highways.

In an email dated March 9, 2026, the NDDOT reiterated that they had no concerns.

9.5 North Dakota Parks & Recreation Department

In a letter dated November 25, 2025, NDPRD stated that they had reviewed the Project and found that no NDPRD Jurisdictional Properties or Natural Heritage Program Resources would be impacted by the Project.

In a letter dated April 1, 2026, NDPRD confirmed that an updated environmental review of the Project found no concerns.

9.6 North Dakota Department of Water Resources

In a letter dated November 20, 2025, NDDWR reviewed the Project and determined that no sovereign land permit or floodplain constraints are anticipated. The Project is not expected to require water appropriation permits unless surface or groundwater is diverted for construction purposes.

DWR indicated that removal of the existing artificial ditch block would qualify as a permitted Temporary Wetland Restoration action and would not require a surface drain permit; however, notification to DWR upon completion is requested.

Based on calculations performed by Montana-Dakota using current design information, the Project would disturb substantially less than 80 acres and would not involve diversion of 50

acre-feet or more of water; therefore, a surface drain permit or water appropriation permit would not be expected to be required.

In a letter dated March 27, 2026, NDDWR restated that as described, the Project should require no NDDWR permits. Follow-up correspondence is included in **Appendix C**.

9.7 U.S. Fish and Wildlife Service - Kulm Wetland Management District

In a letter dated November 26, 2025, the Kulm Wetland Management District of the USFWS stated that there are no USFWS property interests in the Study Area.

9.8 State Historical Society of North Dakota

In a letter dated December 1, 2025, the State Historical Society of North Dakota determined that no significant sites would be affected by the Project.

In a letter dated March 30, 2026 the State Historical Society of North Dakota stated that no significant sites would be affected by the Project.

9.9 North Dakota Transmission Authority

In an email dated March 11, 2026, the North Dakota Transmission Authority stated they have no concerns and are supportive of the Project.

9.10 North Dakota Aeronautics Commission

In an email dated March 26, 2026, the North Dakota Aeronautics Commission stated that they do not anticipate the Project to have a detrimental impact on aviation in the Ellendale area, however, they recommended an airspace case be submitted with the FAA to ensure no infrastructure results in airspace conflicts. This recommendation stems from the Federal Aviation Administration requirement found in 14 CFR § 77.9(b) that mandates the FAA be notified of projects with infrastructure reaching certain heights.

9.11 North Dakota Department of Environmental Quality

In a letter dated April 1, 2026, NDDEQ listed five potentially applicable permits and/or impacts regarding the Project. Those impacts/permits included the potential for fugitive dust emissions, degradation to waterways, stormwater permit, solid and hazardous waste, and polychlorinated biphenyls potentially present in older electrical equipment. The NDDEQ also stated that the department has no land or projects scheduled in the area, and that proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution in the State of North Dakota.

10. Qualifications of Contributors to Siting Study

Ashley Ross

Ashley is a senior environmental specialist with Ulteig that holds a B.S. in Natural Resources Management from Dickinson State University. She has 17 years of experience in conservation and environmental planning which has allowed her to work in coordination with private landowners and entities, local, state, and federal and tribal agencies. Ashley has experience in identifying and completing impact assessments, public and agency coordination, permitting, and biological and botanical surveys. She has authored numerous technical reports including National Environmental Policy Act (NEPA) documents such as Environmental Assessments, Categorical Exclusions and Environmental Impact Statements. Ashley has extensive experience with the renewable and non-renewable fields.

Matthew Phillips

Matthew is an environmental specialist with Ulteig with three years of experience in conservation and environmental planning. He holds a B.S. in Environmental Science from the University of Tennessee at Chattanooga. He has extensive hands-on experience conducting migratory bird surveys and aquatic resource surveys, having completed numerous assessments for oil and gas projects in the Bakken.

Andy McDonald

Andy is the manager of environmental compliance for Montana-Dakota's electric system. He holds a B.S. in Biology from the University of Mary. Andy has worked in the environmental science field for 20 years, with the last 11 years spent with Montana-Dakota, overseeing natural and cultural resource permitting for various infrastructure projects.

Timothy McDonald

Tim is an Engineer III in Montana-Dakota's Electric Transmission Engineering Department and has been employed by MDU for 10 years. He holds a B.S. in Mechanical Engineering from the University of North Dakota. Tim has extensive experience in planning, design, procurement, and construction of electric utility infrastructure projects. His responsibilities include physical infrastructure design, project cost estimating, technical specification development, equipment procurement, contractor selection and management, construction oversight, and schedule development and coordination. He

provides technical leadership throughout the project lifecycle from initial planning through detailed design, construction, and project closeout.

Daniel Albrecht

Dan is the Manager of Engineering Services for substation and transmission line design and construction. He holds a B.S. in Civil Engineering from North Dakota State University and a M.S. in Civil Engineering from Norwich University. Dan has worked in utility field specifically substation and transmission for 20 years, with the last 14 years spent with Montana-Dakota, overseeing substation and transmission line planning, design, procurement, and construction of electric utility infrastructure projects.

11. References

- Bell, C. and L.M. Tronstad. (2021). Distribution of declining bumble bees in central and eastern Wyoming. Report prepared by the Wyoming Natural Diversity Database for the Wyoming Office of the Bureau of Land Management. Retrieved from <https://wyndd-reports.s3.us-west-2.amazonaws.com/21bel01.pdf>
- Bluemle, J. P. 1979. Geology of Dickey and LaMoure Counties, North Dakota. Accessed online November 5, 2025. Retrieved from <https://www.dmr.nd.gov/ndgs/documents/outofprint/Bulletins/Bulletin%2070.pdf>
- Brower, L.P. (1984). Chemical defense in butterflies. Pages 109-134 in Vane-Wright, R.I. and P.R. Ackery, eds. The Biology of Butterflies. London: Academic Press.
- Bryce, S. A., J. M. Omernik, D. E. Pater, M. Ulmer, J. Schaar, J. Freeouf R. Johnson, P. Kuck, and S. H. Azevedo. Undated. Level IV Ecoregions of North Dakota and South Dakota. Accessed online November 4, 2025. Retrieved from <https://www.epa.gov/eco-research/ecoregions>
- Bureau of Land Management. 2015. Official Bureau of Land Management Potential Fossil Yield Classification for the geologic formations of Montana, North Dakota, and South Dakota.

- Bureau of Land Management. 2016. Potential Fossil Yield Classification System. Accessed online November 5, 2025. Retrieved from <https://www.blm.gov/policy/im-2016-124>
- Canadian Wildlife Service and US Fish and Wildlife Service (CWS & USFWS). (2007). International recovery plan for the whooping crane. Ottawa: Recovery of Nationally Endangered Wildlife (RENEW), and US Fish and Wildlife Service, Albuquerque, New Mexico. 162pp.
- Cockrell, B. J., S. B Malcolm, & L. P Brower. (1993). Time, temperature, and latitudinal constraints on the annual recolonization of eastern North America by the monarch butterfly. In S. B. Malcolm, & M. P. Zalucki (Eds.), *Biology and conservation of the monarch butterfly*. (pp. 233-251). Natural History Museum of Los Angeles County; Science Series, 38.
- Davis, A. K., and E. Howard. (2005). Spring recolonization rate of monarch butterflies in eastern North America: new estimates from citizen-science data. *Journal of the Lepidopterist's Society* 59:1-5. Retrieved from <https://www.biodiversitylibrary.org/part/78553>
- Federal Emergency Management Agency. 2025. Flood Insurance Rate Map - Map Index for Dickey County, North Dakota and Incorporated Areas. Accessed online November 3, 2025. Retrieved from <https://msc.fema.gov/portal/home>
- Flockhart, D.T.T., L.I. Wassenaar, T.G. Martin, K.A. Hobson, M.B. Wunder, and D.R. Norris. (2013). Tracking multi-generational colonization of the breeding grounds by monarch butterflies in eastern North America. *Proceedings of the Royal Society B: Biological Sciences* 280:20131087-20131087.
- French & Associates, Ltd. 1998. Managing Floodplain Development Through the National Flood Insurance Program. Accessed online September 11, 2018. Retrieved from <https://www.fema.gov/media-library/assets/documents/6029>
- Johnsgard, P.A. 2012. *Wings over the Great Plains: Bird Migrations in the Central Flyway*. Zea E-Books. Accessed online November 5, 2025. Retrieved from <http://digitalcommons.unl.edu/zeabook/13>
- Lewis, T.E., and R.D. Slack. (2008). Whooping Cranes and Human Disturbance: An Historical Perspective and Literature Review. North American Crane Workshop Proceedings. Paper 182. Retrieved from <http://digitalcommons.unl.edu/nacwgproc/182>.

Montana-Dakota Utilities Co., Ellendale 345kV Substation Expansion Project:
Class III Cultural Resource Inventory, Dickey County, North Dakota, 2025.

National Park Service. 2021. Mapping Sound. Accessed online November 4, 2025.
Retrieved from <https://www.nps.gov/subjects/sound/soundmap.htm>

North Dakota Department of Environmental Quality. 2025a. Environmental
Incident Reports. Accessed online November 4, 2025. Retrieved from
https://deq.nd.gov/WQ/4_Spill_Investigations/Reports.aspx

North Dakota Department of Environmental Quality. 2025b. UST Facility List.
Accessed online November 4, 2025. Retrieved from
<https://deq.nd.gov/WM/UndergroundStorageTankProgram/>

North Dakota Department of Environmental Quality. 2025c. All Solid Waste Facilities.
Accessed online November 4, 2025. Retrieved from
<https://deq.nd.gov/WM/Publications.aspx>

North Dakota Department of Mineral Resources. 2025. North Dakota Oil and Gas
Division Map Viewer. Accessed online November 5, 2025. Retrieved from
<https://gis.dmr.nd.gov/>

North Dakota Department of Transportation. 2022. Interactive Transportation
Information Map. Accessed online November 5, 2025. Retrieved from
<https://www.dot.nd.gov/construction-and-planning/nddot-maps/county-urban-traffic-maps>

North Dakota Department of Water Resources. 2025. ND Department of Water
Resources MapService. Accessed online November 4, 2025. Retrieved from
<https://mapservice.dwr.nd.gov/>

North Dakota Game and Fish Department. 2025. North Dakota State Wildlife Action
Plan 2025. Retrieved from <https://gf.nd.gov/wildlife/swap>

North Dakota Game and Fish Department. 2025a. Species Identification. Accessed
online November 4, 2025. Retrieved from <https://gf.nd.gov/wildlife/id>

Oberhauser, K. S, and D. Frey. (1997). Coercive mating by overwintering male
monarch butterflies. Page 67 in 1997 North American conference on the
monarch butterfly. 1999.

U.S. Census Bureau. 2025. 2023 American Community Survey. Accessed online
December 3, 2025. Retrieved from
https://data.census.gov/profile/Dickey_County,_North_Dakota?g=050XX00US38021

U.S. Department of Agriculture. 2022. Census of Agriculture County Profiles. Accessed online November 4, 2025. Retrieved from https://www.nass.usda.gov/Publications/AgCensus/2022/Online_Resources/County_Profiles/

U.S. Department of Agriculture National Agricultural Statistics Service. 2024. CroplandCROS. Accessed online November 6, 2025. Retrieved from <https://croplandcros.scinet.usda.gov/>

U.S. Department of Agriculture. 2025. Web Soil Survey. Accessed online October 30, 2025. Retrieved from <https://websoilsurvey.sc.egov.usda.gov/>

U.S. Environmental Protection Agency. 2025a. Interactive Map of Sole Source Aquifers. Accessed online November 5, 2025. Retrieved from <https://www.epa.gov/dwssa>

U.S. Environmental Protection Agency. 2025b. Prairie Potholes. Accessed online November 5, 2025. Retrieved from <https://www.epa.gov/wetlands/prairie-potholes>

U.S. Fish and Wildlife Service. 2009. Whooping crane migration shapefiles 1955 to 2009.

U.S. Fish and Wildlife Service (USFWS). (2020). Endangered and Threatened Wildlife and Plants; 12-Month Finding for the Monarch Butterfly. Retrieved from <https://www.federalregister.gov/documents/2020/12/17/2020-27523/endangered-and-threatened-wildlife-and-plants-12-month-finding-for-the-monarch-butterfly>

U.S. Fish and Wildlife Service (USFWS). (2021). Whooping Crane (*Grus americana*). Retrieved from <https://www.fws.gov/species/whooping-crane-grus-americana>

U.S. Fish and Wildlife Service (USFWS). (2023). Species Status Assessment For Regal Fritillary. Retrieved from <https://www.regulations.gov/document/FWS-R6-ES-2023-0182-0005>.

U.S. Fish and Wildlife Service (USFWS). (2024a). Endangered and Threatened Wildlife and Plants; Endangered Species Status for Suckley's Cuckoo Bumble Bee. Retrieved from <https://www.fws.gov/species-publication-action/endangered-species-status-suckleys-cuckoo-bumble-bee>

U.S. Fish and Wildlife Service (USFWS). (2024b). USFWS Proposes ESA Protections for Both Subspecies of the Regal Fritillary Butterfly. Retrieved from

Certificate of Corridor Compatibility Amendment for PU-13-840

Montana-Dakota Utilities Company

July 2026

12. Acronyms, Abbreviations and Definitions

A-weighted Decibel (dBA)

Area of Potential Effect (APE)

Bald and Golden Eagle Protection Act (BGEPA)

Best Management Practices (BMPs)

Canadian Wildlife Service (CWS)

Clean Water Act (CWA)

Conservation Reserve Program (CRP)

Electromagnetic field (EMF)

Endangered Species Act (ESA)

Federal Aviation Administration (FAA)

Federal Emergency Management Agency (FEMA)

Floodplain Insurance Rate Maps (FIRMs)

Kilovolt (kV)

Migratory Bird Treaty Act (MBTA)

National Wetland Inventory (NWI)

National Wildlife Refuge (NWR)

Natural Resources Conservation Service (NRCS)

North Dakota Administrative Code (NDAC)

North Dakota Century Code (NDCC)

North Dakota Department of Environmental Quality (NDDEQ)

North Dakota Department of Transportation (NDDOT)

North Dakota Department of Trust Lands (NDDTL)

North Dakota Department of Water Resources (NDDWR)

North Dakota Game and Fish Department (NDGFD)
North Dakota Geological Survey (NDGS)
North Dakota Parks and Recreation Department (NDPRD)
North Dakota Public Service Commission (NDPSC)
Not Applicable (NA)
Operations and Maintenance (O&M)
Private Land Open to Sportsmen (PLOTS)
Species of Greatest Conservation Need (SGCN)
Spill Prevention, Control, and Countermeasure (SPCC)
Storm Water Pollution Prevention Plan (SWPPP)
Underground Storage Tank (UST)
U.S. Army Corps of Engineers (USACE)
U.S. Department of Defense (USDOD)
U.S. Fish and Wildlife Service (USFWS)

Appendix A – Certificate Completion Checklist

State Authority	Description	Section
NDAC 69-06-05-01	Transmission Facility Permit	
Section 2	Contents	
a.	A description of the following:	
(1)	The type of facility proposed.	1.0, 4.1
(2)	The purpose of the facility	1.0, 2.1
(3)	The technology to be deployed.	4.1
(4)	The type of product to be transmitted.	1.0
(5)	The source of the product to be transmitted.	N/A
(6)	The final destination of the product to be transmitted.	1.0, 2.1
(7)	The proposed size and design and any alternate size or design that was considered, including:	3.5, 5.0
(a)	The width of right of way	N/A
(b)	The approximate length of facility	N/A
(c)	The estimated span length for electric facilities	N/A
(d)	The anticipated type of structure for electric facilities	4.1
(e)	The voltage for electric facilities	1.0
(f)	The requirement for and general location of any new associated facilities	N/A
(g)	The estimated distance between surface structures for pipeline facilities	N/A
(h)	The pipe size for pipeline facilities	N/A
(i)	The maximum design operating pressure and temperature for pipeline facilities	N/A
(j)	The maximum design flow rate for pipeline facilities	N/A
(k)	The number and general location of compressor or pumping stations	N/A
b.	The anticipated time schedule for accomplishing major events, including:	1.3
(1)	Obtaining the certificate of corridor compatibility.	1.3
(2)	Obtaining the route permit.	
(3)	Completing right-of-way acquisition.	1.3
(4)	Starting construction.	1.3
(5)	Completing construction.	1.3
(6)	Testing operations.	1.3
(7)	Commencing operations.	1.3
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.	Appendices E & F

d.	An analysis of the need for the proposed facility based on present and projected demand for the product transmitted, including the most recent system studies supporting the analysis of the need.	2.1
e.	A description of any feasible alternative methods of 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, 6.0
g.	A study area that includes a proposed corridor of sufficient width to enable the commission to evaluate the factors addressed in North Dakota Century Code section 49-22-09.	1.2, 6.0
h.	A discussion of the factors in North Dakota Century Code section 49-22-09 to aid the commission's evaluation of the proposed route.	2.2, 6.0, 8.0
i.	A discussion of the applicant's policies and commitments to limit the environmental impact of its facilities, including copies of board resolutions and management directives.	Section 6
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.	Appendix B
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.	3-3.6
l.	A discussion of the general mitigative measures that the applicant will take to minimize adverse impacts that result from a route location in the proposed corridor and the construction and operation of the facility.	6.0-6.16
m.	The qualifications of each person involved in the corridor location study.	10.0
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.	Appendix B

o.	An eight and one-half-inch by eleven-inch black and white map suitable for newspaper publication depicting the site area.	Appendix B
p.	A discussion of present and future natural resource development in the area.	6.2, 6.9
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. The information must provide the location of the proposed facilities, the proposed corridor and route, and the criteria evaluated.	Appendix B, USB
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, 4.0
b.	A summary of any studies which have been made of the environmental impact of the facility.	6.0-6.16
c.	A statement explaining the need for the facility.	2.1
d.	An identification of the location of the preferred site for any electric energy conversion facility.	1.0, Appendix B
e.	An identification of the location of the preferred corridor for any electric transmission facility.	1.0, Appendix B
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.	1.1, 2.0-3.6, 6.0-6.16
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.	6.0-6.16
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.	3-3.6, 6.0-6.16
i.	Such other information as the applicant may consider relevant or the commission may require.	8.0-8.11
49-22-09	Factors to be considered in evaluating applications and designation of sites, corridors, and routes	
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.	8.1
b.	The effects of new electric energy conversion and electric transmission technologies and systems designed to minimize adverse environmental effects.	8.2
c.	The potential for beneficial uses of waste energy from a proposed electric energy conversion facility.	8.3
d.	Adverse direct and indirect environmental effects that cannot be avoided should the proposed site or route be designated.	8.4, 6.0
e.	Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.	8.5, 2.2
f.	Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.	8.6
g.	The direct and indirect economic impacts of the proposed facility.	8.7, 6.1, 6.9
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.	8.8, 6.2
i.	The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.	8.9, 6.6, 6.7, 6.11
j.	The effect of the proposed site or route on areas unique because of biological wealth or because the areas are habitats for rare and endangered species.	8.10, 6.15
k.	Problems raised by federal agencies, other state agencies, and local entities.	8.11, 9.0

Appendix B - Exhibits

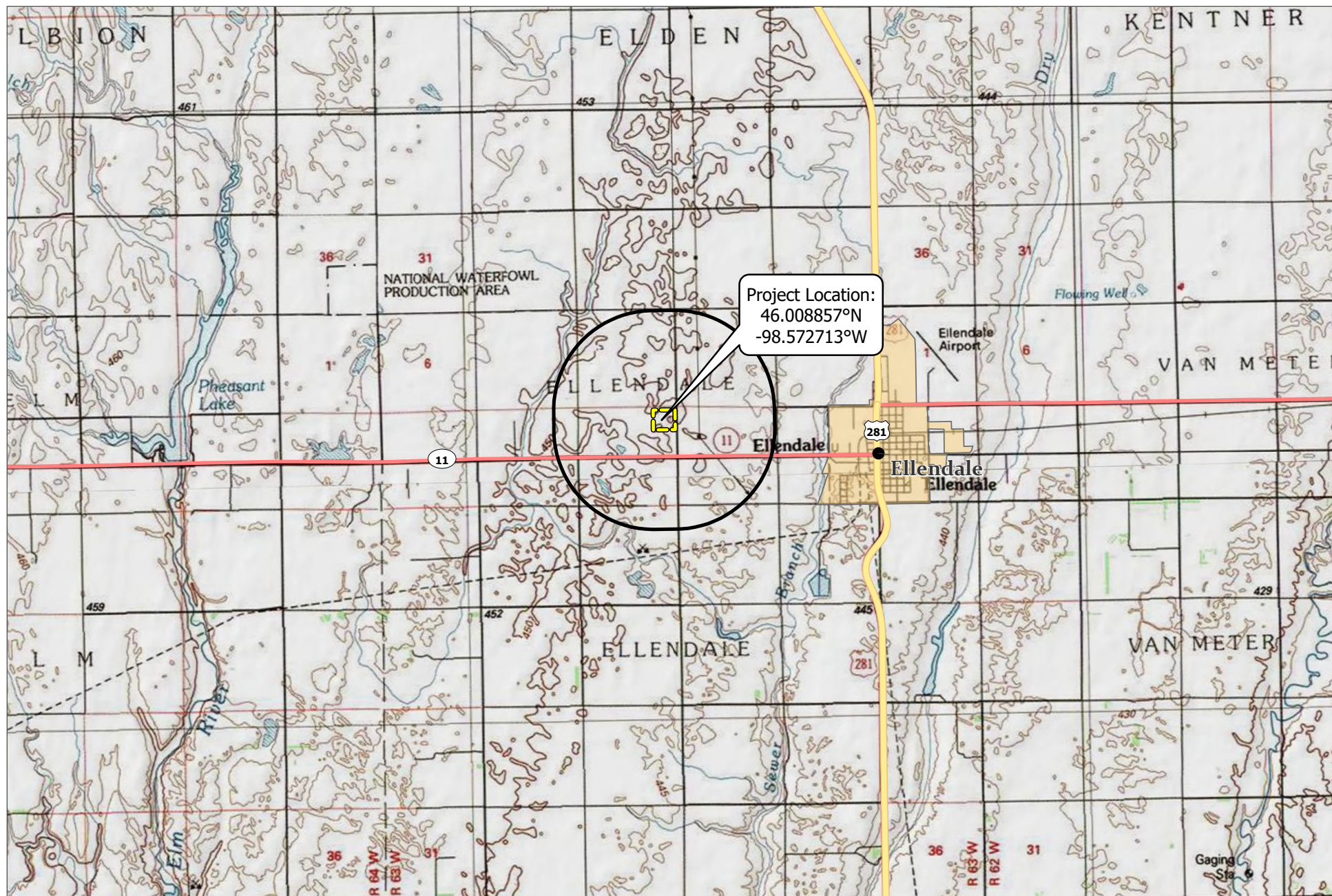
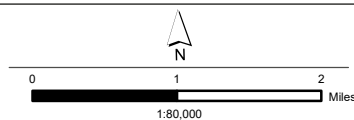


Exhibit 1: PROJECT LOCATION
Dickey County, North Dakota

Ulteig



- State Highway
- US Highway
- Project Corridor
- Study Area (1mi)
- City Boundary

MAP CREATED BY: A. Fisher
DATE: 4/2/2026 11:17 AM
PROJECT: MDU Ellendale Substation
Expansion
DEINATOR: J. Moss
FIELD DATE: 09/12/2025
BACKGROUND: USGS Topographic Map
DATA SOURCES: ND GIS, Ulteig

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-  Project Corridor
-  Survey Area
-  Previously Surveyed Area
-  PLSS Sections
-  Study Area (1mi)

Exhibit 2: Project Corridor & Survey Area

Dickey County, North Dakota

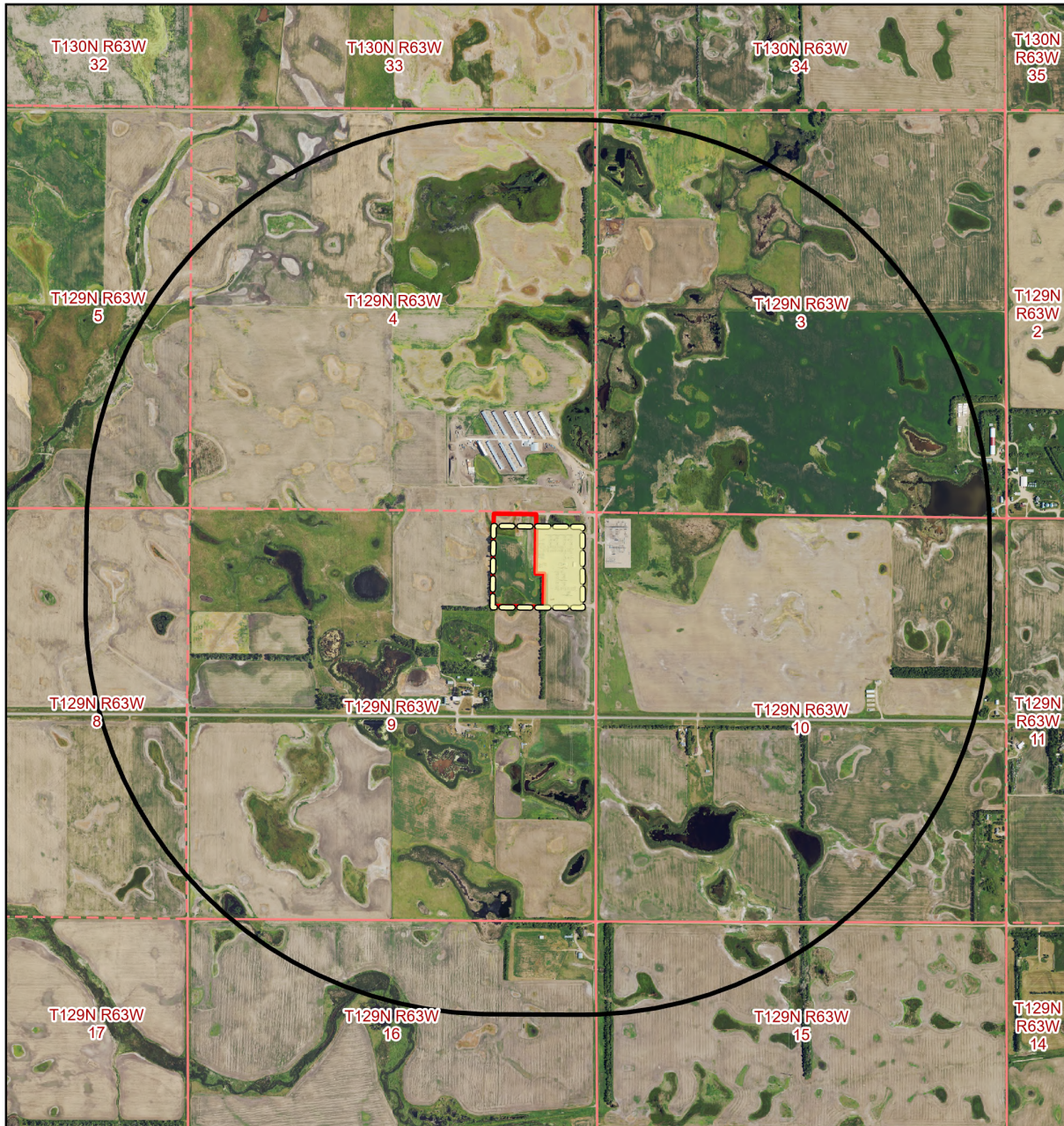
0 500
US Feet



1:7,000



Created By: A. Fisher
Date Exported: 4/30/2026
Sources: Ulteig, USGS, NDGIS
Background: NDSWC 2023 Aerial



-  Project Corridor
-  Survey Area
-  Previously Surveyed Area
-  Study Area (1mi)
-  PLSS Sections

Exhibit 3: Study Area

Dickey County, North Dakota

0 1,000 2,000
US Feet



1:25,000



Created By: A. Fisher
Date Exported: 4/30/2026
Sources: Ulteig, USGS, NDGIS
Background: NDSWC 2023 Aerial

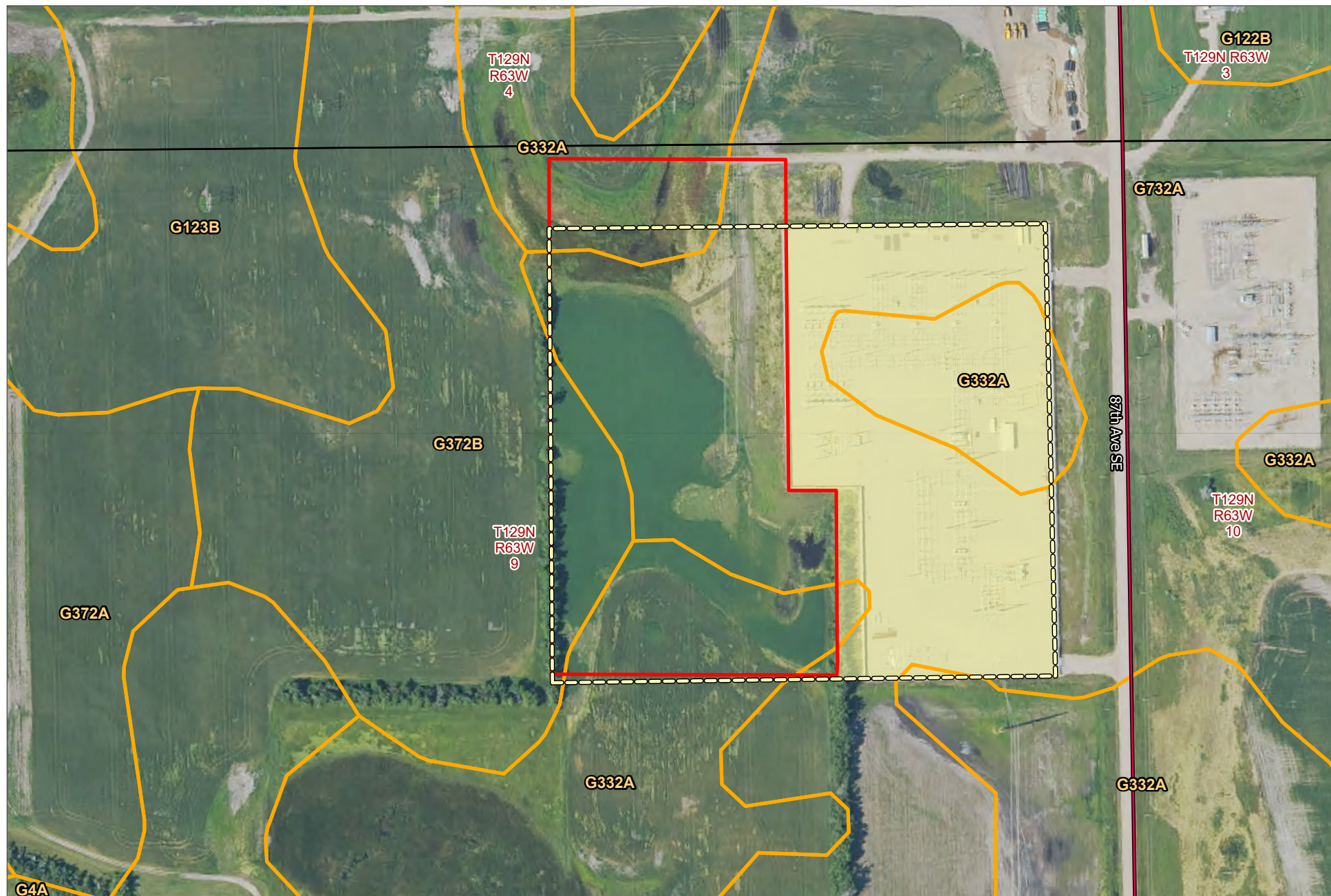
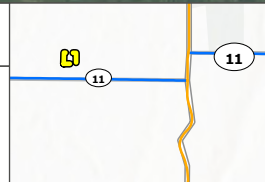


Exhibit 4: SOILS MAP
Dickey County, North Dakota

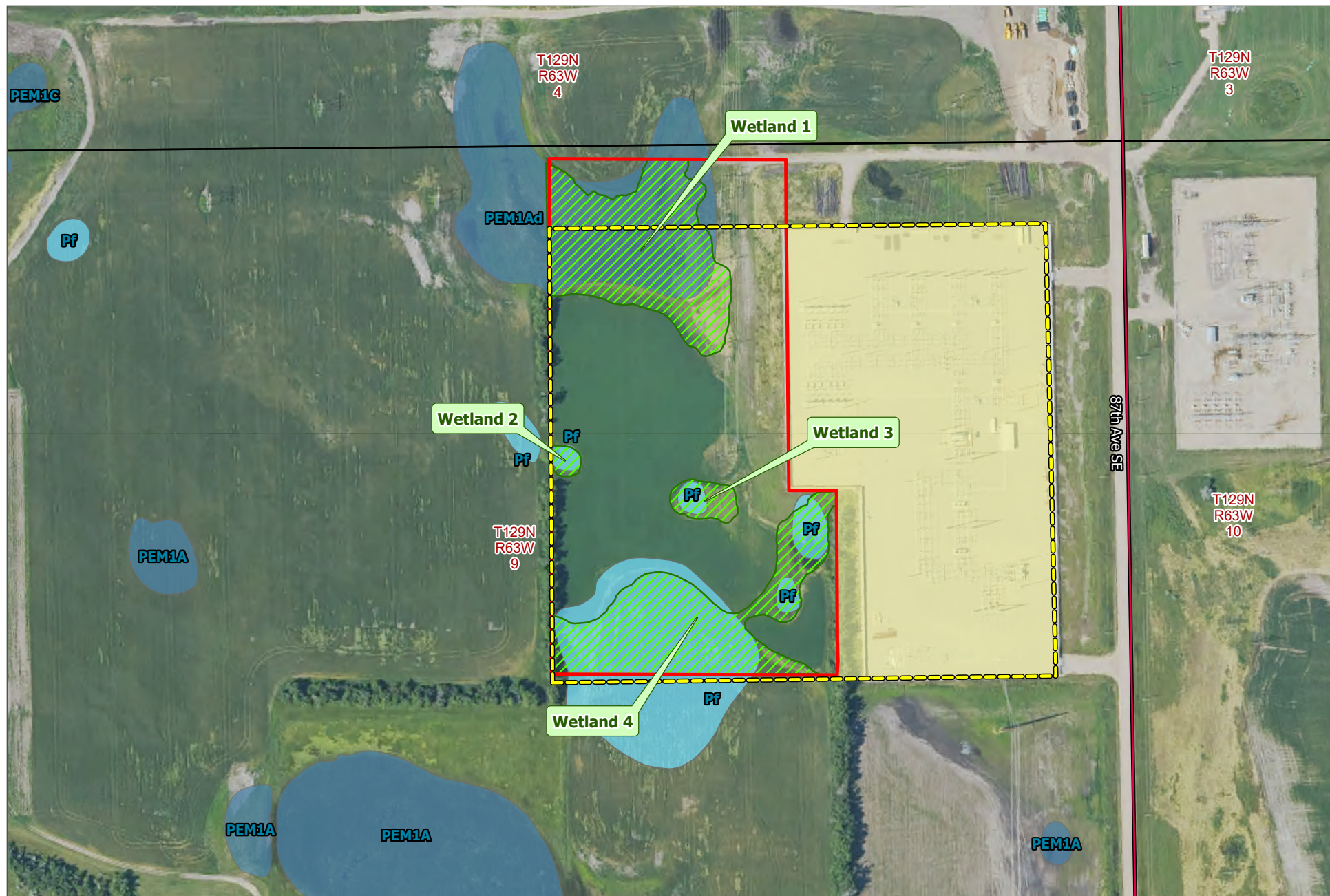
Ulteig



- Survey Area
- Previously Surveyed Area
- Project Corridor
- Soils
- PLSS Sections
- County Road

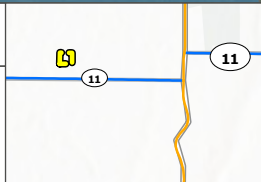
MAP CREATED BY: A. Fisher
DATE: 4/30/2026 2:07 PM
PROJECT: MDU Ellendale Substation Expansion
DEINERATOR: J. Moss
FIELD DATE: 09/12/2025
BACKGROUND: NAIP 2024
DATA SOURCES: ND GIS, Ulteig, USDA

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**Exhibit 5: Surface Waters and Wetlands
Dickey County, North Dakota**

Ulteig



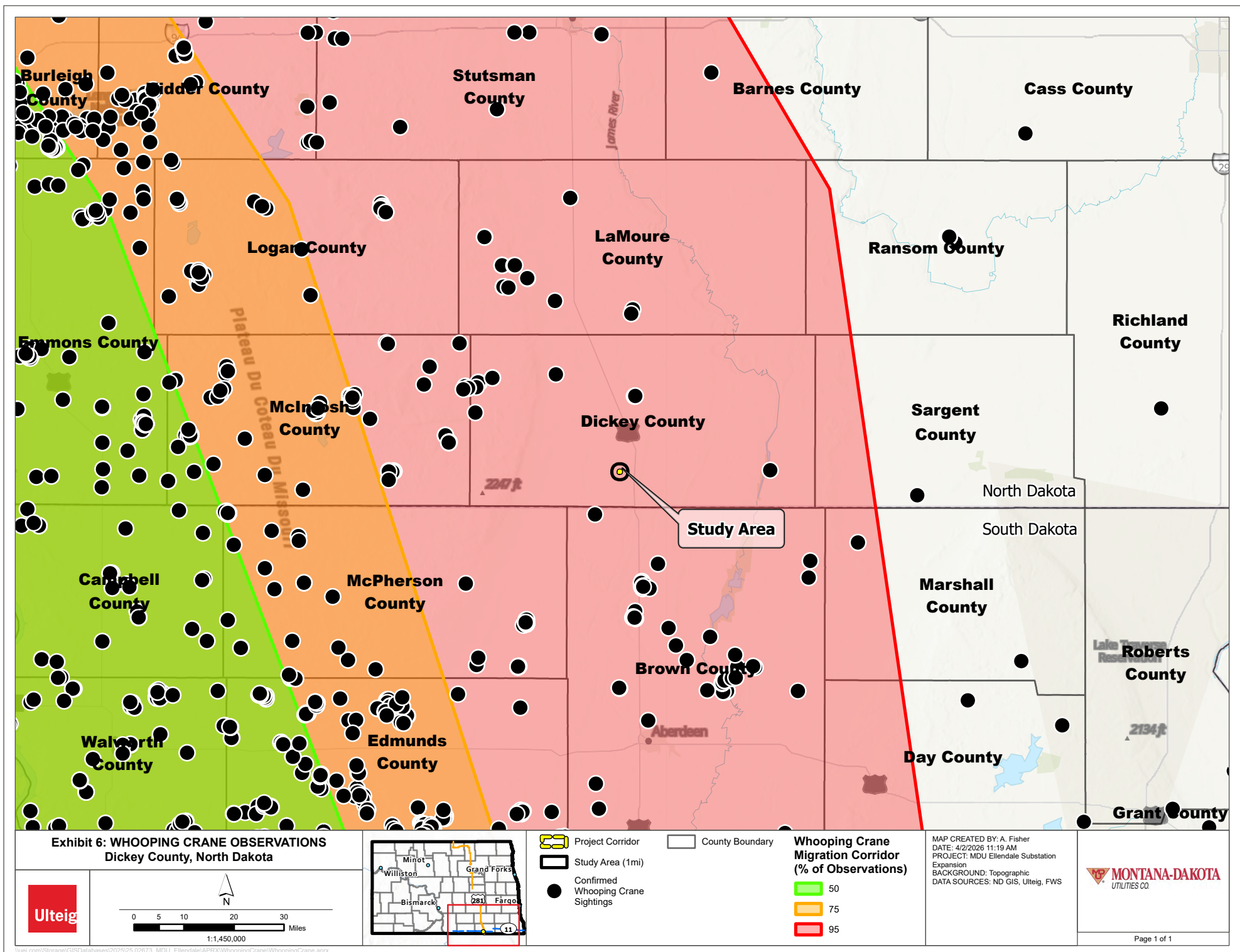
- Survey Area
- Previously Surveyed Area
- Project Corridor

- PLSS Sections
- County Road
- Aquatic Resources**
- Wetland

- NWI Wetlands**
- Freshwater Emergent Wetland
- Other

MAP CREATED BY: A. Fisher
DATE: 4/30/2026 1:56 PM
PROJECT: MDU Ellendale Substation Expansion
DEVELOPER: J. Moss
FIELD DATE: 09/12/2025
BACKGROUND: NAIP 2024
DATA SOURCES: ND GIS, Ulteig, USFWS

MONTANA-DAKOTA
UTILITIES CO.



Appendix C – Solicitation 1 Correspondence

Type	Agency Required by NDAC 65-06-01-05	Salutation	First Name	Last Name	Title	Department	Agency	Address	City	State	Zip
STATE		1 Mr.	Kyle	Wanner	Director		ND Aeronautics Commission	PO Box 5020	Bismarck	ND	58502-5020
STATE		2 Mr.	Drew	Wiegley	Attorney General		ND Attorney General	600 E. Boulevard Ave Dept. 125	Bismarck	ND	58505
STATE		3 Mr.	Doug	Goehring	Agriculture Commissioner		ND Department of Agriculture	600 E. Boulevard Ave Dept 602	Bismarck	ND	58505-0020
STATE		4 & 5 Mr.	Pat	Traenkle	Interim Director		ND Department of Health and Human Services	600 East Boulevard Ave Dept 325	Bismarck	ND	58505-0250
STATE		6 Mr.	Zachary	Greenberg	Commissioner of Labor		ND Department of Labor and Human Rights	600 East Boulevard Ave Dept 406	Bismarck	ND	58505-0340
STATE		7 Mr.	Wayde	Sick	Director and Executive Officer		ND Department of Commerce	600 East Boulevard Avenue	Bismarck	ND	58505-0610
STATE		8 Mr.	Chris	Schlenker	Commissioner		ND Department of Commerce	1600 E. Century Ave., Suite 6	Bismarck	ND	58503
STATE		9 & 10 Mr.	Joseph	Heninger	Land Commissioner		ND Department of Trust Lands	1707 N 3th St	Bismarck	ND	58501-5323
STATE		11 Ms.	Jeb	Williams	Executive Director		ND Game and Fish Department	100 N. Bismarck Expressway	Bismarck	ND	58501-5095
STATE		12 Governor	Karen	Amstrong	Governor		ND Industrial Commission	600 E. Boulevard Ave. Dept. 405	Bismarck	ND	58505-0840
STATE		13 Mr.	Kelly	Henke, PE	Director		ND Office of the Governor	600 East Boulevard Avenue	Bismarck	ND	58505-0100
STATE		14 Mr.	Ron	Peterson	Director		ND Department of Transportation	612 East Boulevard Avenue	Bismarck	ND	58505-0700
STATE		15 Mr.	Brad	Hawk	Executive Director		State Historical Society of ND		Bismarck	ND	58505
STATE		16 Mr.	Patrick	Bertagnolli	Executive Director		ND Indian Affairs Commission	600 E. Boulevard Ave.	Bismarck	ND	58505
STATE		18 Mr.	Cody	Schultz	Director		Job Service ND	PO Box 5507	Bismarck	ND	58506-5507
FEDERAL		19 Mr.	Dan	Hovland	State Conservationist	North Dakota State Office	ND Department of Parks and Recreation	604 E Boulevard Ave, Dept. 750	Bismarck	ND	58505
STATE		20 Mr.	Reice	Haase	Director		Natural Resources Conservation Service	PO Box 1458	Bismarck	ND	58502-1458
STATE		21 Mr.	Darin	Hanson	Director		ND Department of Water Resources	1200 Memorial Highway	Bismarck	ND	58504-5262
FEDERAL		22 Mr.	Luke	Toso	North Dakota Deputy Field Supervisor	Homeland Security and Emergency Managem	Department of Emergency Services	PO Box 5511	Bismarck	ND	58504
FEDERAL		23 Ms.	Krista	Lundgren	Acting District Manager	North Dakota Ecological Services Office	US Fish and Wildlife Service	3425 Miriam Avenue	Bismarck	ND	58501-7926
FEDERAL		24 Mr.	Benjamin	Solseth	State Program Manager	Kuim Wetland Management District	US Fish and Wildlife Service	1 First Street SW PO Box E	Kulm	ND	58456-7112
FEDERAL		25 Mr.	Dave	Anderson	Assistant Manager	North Dakota Regulatory Office	US Army Corps of Engineers	3319 University Drive	Bismarck	ND	58504
COUNTY		26 Ms.	Brandon	Carlson	Chairman	Dakota-Minnesota Airports District Office	Federal Aviation Administration	2301 University Dr, Bldg 238	Bismarck	ND	58504
STATE		27 Ms.	Claire	Vigesaa	Executive Director	North Dakota Transmission Authority	Dickey County Commissioners	309 2nd St N	Ellendale	ND	58436
STATE		28 Mr.	Justin	Kringstad	Director	North Dakota Pipeline Authority	ND Industrial Commission	600 E. Boulevard Ave. Dept. 405	Bismarck	ND	58505-0840
STATE		29 Mr.	David	Glatt	State Geologist	Geological Survey	ND Department of Environmental Quality	4201 Normandy Street	Bismarck	ND	58503-1324
STATE		30 Mr.	Edward	Murphy	State Forester	North Dakota Forest Service	ND Department of Mineral Resources	600 East Boulevard Avenue - Dept. 474	Bismarck	ND	58505-0614
FEDERAL		31 Ms.	Thomas	Clayes	District Manager	Eastern Montana/Dakotas District Office	Bureau of Land Management	916 E Interstate Avenue Suite #4	Bismarck	ND	58503-1227
FEDERAL		32 Ms.	Wendy	Warren	Director		Military Aviation and Installation Assurance Siting Clearinghouse	111 Garryowen Road	Miles City	MT	59301
FEDERAL		33 Mr.	Robbin	Beard	Cable Affairs Officer	91st Missile Maintenance Squadron	91st Missile Wing	3400 Defense Pentagon, Room 5C646	Washington	DC	20301-3400
FEDERAL		34 Mr.	Cy	Munos	Chief Missile Engineering		Minot AFB	300 Minuteman Drive	Minot AFB	ND	58705
FEDERAL		35 Sir or Madam	Daniel	Lewis, PE	Deputy Base Civil Engineer		Grand Forks AFB	445 Peacekeeper Place	Grand Forks AFB	ND	58705
								525 Tuskegee Airmen Blvd.			58205-6434



We listen. We solve.®

October 28, 2025

RE: Ellendale Substation Expansion
Montana-Dakota Utilities Co.
Dickey County, North Dakota

Dear:

On behalf of Montana-Dakota Utilities Co. (Montana-Dakota), Ulteig is preparing an application for the Ellendale Substation Expansion pursuant to the *North Dakota Energy Conversion and Transmission Facility Siting Act* for consideration by the North Dakota Public Service Commission. The application involves the proposed expansion of an existing substation located in Dickey County, North Dakota. Please refer to the enclosed Project Location Map for reference.

The Ellendale Substation Expansion Project proposes to expand the existing substation footprint to the west to provide a redundant (backup) power source to MDU's Ellendale Data Center Transmission Substation, which supplies electrical service to Polaris Forge 1, an Applied Digital AI-optimized data center campus located directly north of the facility. Construction is anticipated to begin in spring 2026 with an estimated completion date of December 2026. No federal funding is anticipated for the project.

We are soliciting your views and comments on the proposed project. In particular, we are interested in any property near the project area in which your agency may have an interest, as well as any proposed developments your agency may be considering nearby. Any information that may assist us in preparing the application would be greatly appreciated.

Please provide any comments or information you may have regarding the Ellendale Substation Expansion by **November 28, 2025**. If you have any questions or require additional information, please don't hesitate to contact me. Thank you for your time and cooperation.

Sincerely,

Ashley Ross
Project Manager
701.355.2389 | Ashley.ross@ulteig.com



 Project Boundary
 PLSS Sections

Ellendale Substation Expansion

Dickey County, North Dakota

0 500
 US Feet



1:7,000



Created By: A. Fisher
Date Exported: 10/21/2025
Sources: ND SHPO, Ulteig, USGS
Background: NDSWC 2023 Aerial

C.1.1 – North Dakota Geological Survey

FW: N.D. Geological Survey: Ellendale Substation Expansion Comments

From Ashley Ross <ashley.ross@ulteig.com>

Date Fri 11/7/2025 3:14 PM

To Matthew Phillips <matthew.phillips@ulteig.com>

Can you save this in the MDU folder and make sure we note this response in the PSC application?

Thanks,



Ashley Ross

Senior Environmental Specialist

419 Riverwood Dr, Suite 201 • Bismarck, ND 58504

Direct: [\(701\) 355-2389](tel:7013552389) • **Mobile:** [701-302-0368](tel:7013020368) • [Microsoft Teams Chat](#)
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From: Anderson, Fred J. <fjanderson@nd.gov>

Sent: Thursday, November 6, 2025 10:48 AM

To: Ashley Ross <ashley.ross@ulteig.com>

Subject: N.D. Geological Survey: Ellendale Substation Expansion Comments

External Sender Warning: Proceed with Caution!

Dear Ms. Ross,

The N.D. Geological Survey appreciates the opportunity to review and provide comment on this proposed electrical infrastructure development project. Our agency does not have any property interest at this location.

Shallow drilling records from water well drilling near the site suggest that the site is underlain by 50 feet of clayey glacial till overlying shallow shale bedrock of the Pierre Formation.

We do not note any geologic concerns at this location.

Please feel free to contact us if there are any questions or comments regarding this review.

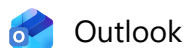
Regards,

Fred J. Anderson

Surface Geology Section Manager

701.328.8000 (O) . fjanderson@nd.gov . www.dmr.nd.gov

C.1.2 – USACE, ND Regulatory Office



FW: Regarding request for comments on the Ellendale Substation Expansion Project

From Ashley Ross <ashley.ross@ulteig.com>

Date Fri 11/7/2025 3:18 PM

To Matthew Phillips <matthew.phillips@ulteig.com>

 4 attachments (812 KB)

20251104_SOV-request.pdf; smime.p7s; ATT00001.txt; ATT00002.htm;

You can log this as an agency response also.



Ashley Ross

Senior Environmental Specialist

419 Riverwood Dr, Suite 201 • Bismarck, ND 58504

Direct: [\(701\) 355-2389](tel:7013552389) • **Mobile:** [701-302-0368](tel:7013020368) • [Microsoft Teams Chat](#)

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From: Nygard, Jeremy S CIV USARMY CENWO (USA) <Jeremy.S.Nygard@usace.army.mil>

Sent: Thursday, November 6, 2025 12:39 PM

To: Ashley Ross <ashley.ross@ulteig.com>

Cc: Jeff Moss <jeff.moss@ulteig.com>

Subject: Regarding request for comments on the Ellendale Substation Expansion Project

Hi Ashley,

I received the attached request in the mail from you on November 4. We already received a JD request for this project from Jeff Moss (you were cc'd) on October 15 and project manager Hadden Carlberg sent Jeff the completed AJD on October 24. Project # NWO-2012-02940-BIS. I don't intend to create a response for the new request since we've already reviewed any wetlands in the project area. If you have any questions, please let me know. Thanks,

v/r

Jeremy Nygard
Regulatory Program Assistant
U.S. Army Corps of Engineers
North Dakota Regulatory Office
3319 University Drive
Bismarck, ND 58504
Direct: 701-989-6425
Office General Line: 701-255-0015



Check out our new Nation-wide [Recommended Minimum Standards for Aquatic Resource Delineation Reports!](#)

Please Note: In our aim to improve efficiency, the North Dakota Regulatory Office prefers that all submissions and requests be sent electronically to the *NEW* [Regulatory Request System \(RRS\)](#) or to: CENWO-OD-RND@usace.army.mil instead of a hard copy by mail. Please split large attachments (>25 MB) into multiple emails if needed. We will continue to accept and issue paper documents that meet our file requirements upon request in order to accommodate those with limited computer access.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
3319 UNIVERSITY DRIVE
BISMARCK, NORTH DAKOTA 58504

October 24, 2025

**SUBJECT: NWO-2012-02940-BIS – MDU; Ellendale Expansion – Approved
Jurisdictional Determination**

Mr. Jeff Moss
Ulteig Operations, LLC
3350 38th Avenue South
Fargo, North Dakota 58104

Dear Mr. Moss:

This letter is in response to the request received on October 15, 2025, submitted on behalf of Montana-Dakota Utilities Co. (MDU), for an approved jurisdictional determination for the MDU Ellendale Expansion project. The site is located in Section 9, Township 129 North, Range 63 West, Dickey County, North Dakota. Your request has been assigned the Corps Regulatory File Number referenced above. Please reference this file number on any correspondence to us or to other interested parties when referencing this project or concerning this request.

The U.S. Army Corps of Engineers (Corps) regulates the discharge of dredged and fill material into waters of the United States under Section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344) and structures or work in, over, and under navigable waters of the United States under Section 10 of the Rivers and Harbors Act (RHA) (33 U.S.C. 403). The implementing regulations for these Acts are published in the Code of Federal Regulations at 33 CFR parts 330-332.

Based on our evaluation of the information provided and other available information, we have determined the following resources are non-jurisdictional: **W-1, W-2, W-3, and W-4**. The attached approved jurisdictional determination provides rationale for why these aquatic resources do not meet the definition of waters of the United States. Based on this determination, a Department of the Army permit **is not** required for the discharge of dredged or fill material into these aquatic resources. This determination does not eliminate requirements to obtain any other applicable federal, state, tribal, or local permits.

Attached to this letter is the approved jurisdictional determination for your project site. This jurisdictional determination is valid for a 5-year period from the date of this letter, until **October 24, 2030**, unless new information warrants revision of the determination before the expiration date. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR part 331. Enclosed you will find a *Notification of Administrative Appeal Options and Process and Request for Appeal* (NAO-RFA) form. If you request to appeal this determination, you must submit a completed NAO-RFA form to the address listed on the form.

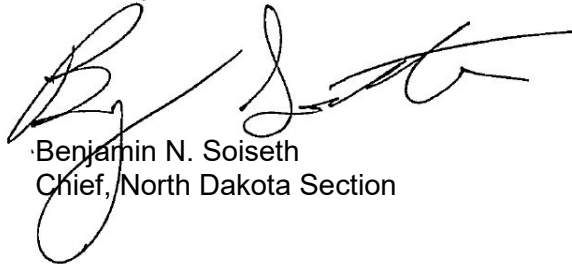
For an NAO-RFA to be accepted by the Corps, the Corps must determine that it is completed, that it meets the criteria for appeal under 33 CFR 331.5, and that it has been received by the Division Office within 60 days of the date of the NAO-RFA. Should you decide to submit an NAO-RFA form, it must be received at the Division Office by **December 23, 2025**. It is not necessary to submit an NAO-RFA form to the Division Office if you do not object to the determination in this letter.

In the event that you disagree with this approved jurisdictional determination and you have **new information** not considered in the original determination, you may request reconsideration of this determination by contacting this office prior to initiating an appeal. To request this reconsideration based upon new information, you must submit the new information to this office so that it is received within 60 days of the date of the NAO-RFA.

Further information regarding the Omaha District Regulatory Program can be obtained by visiting our website at <https://www.nwo.usace.army.mil/Missions/Regulatory-Program/>.

If you have any questions concerning this jurisdictional determination, please contact Mr. Hadden Carlberg at the above address, by phone at 701-989-6431, or by email at Hadden.J.Carlberg@usace.army.mil, and reference file number **NWO-2012-2940-BIS**.

Sincerely,



Benjamin N. Soiseth
Chief, North Dakota Section

Enclosures

cc: Andy McDonald; Environmental Compliance Manager - MDU

The Omaha District, North Dakota Regulatory Office is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete our Customer Service Survey found on our website at <https://regulatory.ops.usace.army.mil/customer-service-survey>. If you do not have Internet access, you may call and request a paper copy of the survey that you can complete and return to us by mail or fax.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
3319 UNIVERSITY DRIVE
BISMARCK, NORTH DAKOTA 58504

CENWO-ODR-N

October 23, 2025

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Pre-2015 Regulatory Regime
Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322
(2023),¹ [NWO-2012-02940-BIS - MDU; Ellendale Expansion, MFR 1 of 1](#)²

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.³ AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.⁴ For the purposes of this AJD, we have relied on section 10 of the Rivers and Harbors Act of 1899 (RHA),⁵ the Clean Water Act (CWA) implementing regulations published by the Department of the Army in 1986 and amended in 1993 (references 2.a. and 2.b. respectively), the 2008 *Rapanos-Carabell* guidance (reference 2.c.), and other applicable guidance, relevant case law and longstanding practice, (collectively the pre-2015 regulatory regime), and the *Sackett* decision (reference 2.d.) in evaluating jurisdiction.

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. The features addressed in this AJD were evaluated consistent with the definition of “waters of the United States” found in the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. This AJD did not rely on the 2023 “Revised Definition of ‘Waters of the United States,’” as

¹ While the Supreme Court's decision in *Sackett* had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.

² When documenting aquatic resources within the review area that are jurisdictional under the Clean Water Act (CWA), use an additional MFR and group the aquatic resources on each MFR based on the TNW, interstate water, or territorial seas that they are connected to. Be sure to provide an identifier to indicate when there are multiple MFRs associated with a single AJD request (i.e., number them 1, 2, 3, etc.).

³ 33 CFR 331.2.

⁴ Regulatory Guidance Letter 05-02.

⁵ USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

CENWO-ODR-N

SUBJECT: Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), [NWO-2012-02940-BIS](#)

amended on 8 September 2023 (Amended 2023 Rule) because, as of the date of this decision, the Amended 2023 Rule is not applicable in this state due to litigation.

1. SUMMARY OF CONCLUSIONS.

- a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).
 - i. [W-1: not jurisdictional; is not a Water of the United States](#)
 - ii. [W-2: not jurisdictional; is not a Water of the United States](#)
 - iii. [W-3: not jurisdictional; is not a Water of the United States](#)
 - iv. [W-4: not jurisdictional; is not a Water of the United States](#)

2. REFERENCES.

- a. Final Rule for Regulatory Programs of the Corps of Engineers, 51 FR 41206 (November 13, 1986).
- b. Clean Water Act Regulatory Programs, 58 FR 45008 (August 25, 1993).
- c. U.S. EPA & U.S. Army Corps of Engineers, Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* & *Carabell v. United States* (December 2, 2008)
- d. *Sackett v. EPA*, 598 U.S. 651, 143 S. Ct. 1322 (2023)
- e. 2008 Rapanos Guidance
- f. US Army-EPA Joint Memo "Memorandum to the Field between the U.S. Department of the Army, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency Concerning the Proper Implementation of "Continuous Surface Connection" under the Definition of "Waters of the United States" under the Clean Water Act"" (March 2025)

3. REVIEW AREA. [Review area is approximately \(~\)16.28 acres, Dickey County, North Dakota in Section 9, Township 129 North, Range 63 West; centered at Latitude 46.008647° N, Longitude -98.572591° W. A boundary map for JD review area is attached. *AJD completed in January 2013 found the same resources non-jurisdictional.*](#)

CENWO-ODR-N

SUBJECT: Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), [NWO-2012-02940-BIS](#)

4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), INTERSTATE WATER, OR THE TERRITORIAL SEAS TO WHICH THE AQUATIC RESOURCE IS CONNECTED. [N/A](#).⁶
5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, INTERSTATE WATER, OR THE TERRITORIAL SEAS [N/A](#).
6. SECTION 10 JURISDICTIONAL WATERS⁷: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10. [N/A](#)⁸
7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the pre-2015 regulatory regime. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.
 - a. TNWs (a)(1): [N/A](#)
 - b. Interstate Waters (a)(2): [N/A](#)

⁶ This MFR should not be used to complete a new stand-alone TNW determination. A stand-alone TNW determination for a water that is not subject to Section 9 or 10 of the Rivers and Harbors Act of 1899 (RHA) is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established.

⁷ 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.

⁸ This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part 329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

- c. Other Waters (a)(3): [N/A](#)
- d. Impoundments (a)(4): [N/A](#)
- e. Tributaries (a)(5): [N/A](#)
- f. The territorial seas (a)(6): [N/A](#)
- g. Adjacent wetlands (a)(7): [N/A](#)

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

- a. Describe aquatic resources and other features within the review area identified as “generally non-jurisdictional” in the preamble to the 1986 regulations (referred to as “preamble waters”).⁹ Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA as a preamble water. [N/A](#)
- b. Describe aquatic resources and features within the review area identified as “generally not jurisdictional” in the *Rapanos* guidance. Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA based on the criteria listed in the guidance. [N/A](#)
- c. Describe aquatic resources and features identified within the review area as waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA. Include the size of the waste treatment system within the review area and describe how it was determined to be a waste treatment system. [N/A](#)
- d. Describe aquatic resources and features within the review area determined to be prior converted cropland in accordance with the 1993 regulations (reference 2.b.). Include the size of the aquatic resource or feature within the review area and describe how it was determined to be prior converted cropland. [N/A](#)
- e. Describe aquatic resources (i.e. lakes and ponds) within the review area, which do not have a nexus to interstate or foreign commerce, and prior to the January 2001 Supreme Court decision in “*SWANCC*,” would have been jurisdictional based solely on the “Migratory Bird Rule.” Include the size of the aquatic

⁹ 51 FR 41217, November 13, 1986.

resource or feature, and how it was determined to be an “isolated water” in accordance with SWANCC. [N/A](#)

- f. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the pre-2015 regulatory regime consistent with the Supreme Court’s decision in *Sackett* (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).
 - i. [W-1 \(~2.85 acres\), W-2 \(~0.10 acres\), W-3 \(~0.28 acres\), and W-4 \(~2.66 acres\) were identified in the delineation report as natural basin wetlands.](#)
 - ii. [Utilizing the best available data \(see Section 9\), the Corps assessed wetlands W-1, W-2, W-3, and W-4 and we have determined that these wetlands are natural palustrine emergent basin wetlands that receive hydrology from precipitation events and surface runoff. Further, it was determined that these wetlands do not possess a continuous surface connection to \(abut\) a relatively permanent tributary to a TNW or to a TNW itself. While these wetlands are part of a larger series of wetlands that continue off-site, there does not exist a continuous surface connection, as per the March 2025 U.S. Army-EPA Memo to the Field \(see Section 2.f above\), between these series of wetlands and a relatively permanent tributary nor to a TNW.](#)
 - iii. [In conclusion, wetlands W-1, W-2, W-3, and W-4 were determined by us to be non-jurisdictional wetlands because they do not meet category \(a\)\(7\) wetlands under the pre-2015 regulatory regime consistent with the Supreme Court’s decision in *Sackett*.](#)
9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.
- a. [October 2025 Aquatic Resources Delineation Report for Montana-Dakota Utilities Co. - Ellendale Substation, delineated by Jeff Moss of Ulteig Operations, LLC on September 12, 2025.](#)
 - b. [Google Earth Pro \(1997-2024\) Assessed October 21, 2025](#)
 - c. [USACE National Regulatory Viewer – North Dakota <https://arcportal-ucop-corps.usace.army.mil/s0portal/apps/experiencebuilder/experience/?id=9e1a61cbac2341d1b75b58c6ffa5a5ca&page=North-Dakota> October 21, 2025](#)

CENWO-ODR-N

SUBJECT: Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), [NWO-2012-02940-BIS](#)

- d. NDDWR/FEMA Flood Risk Assessment Map Service <https://ndram.dwr.nd.gov/> Assessed October 21, 2025
- e. USGS National Map Viewer <https://apps.nationalmap.gov/viewer/> Assessed October 21, 2025
- f. GEGD Pro (Vivid Imagery; 2025) <https://pro.gegd.com/> Assessed October 22, 2025

10. OTHER SUPPORTING INFORMATION. [N/A](#)

11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.

NWO-2012-02940-BIS



C1.3. – North Dakota Game & Fish



November 21, 2025

Ashley Ross
Project Manager
Ulteig
419 Riverwood Drive, Suite 201
Bismarck, ND 58504

Dear Ms. Ross:

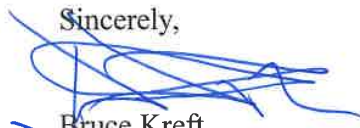
RE: Ellendale Substation Expansion Project
Montana-Dakota Utilities Co.

This project as proposed would expand an existing substation located in Dickey County, North Dakota. The North Dakota Game and Fish Department (Department) has reviewed this project for wildlife concerns.

The National Wetland Inventory indicates a variety of wetlands within the proposed project area. Steps should be taken to protect any wetlands that cannot be avoided, no alterations should be made to existing drainage patterns, and above-ground appurtenances should not be placed in wetland areas. Unavoidable destruction or degradation of wetland acres should be mitigated in kind.

We do not believe this project will have significant adverse effects on wildlife or wildlife habitat, including species of conservation priority, provided these recommendations are implemented where appropriate.

Sincerely,


Bruce Kreft
Chief
Conservation & Communications Division

C.1.4 – NDDOT – Valley City District

RECEIVED BY

NOV 24 2025

ULTEIG ENGINEERS

November 20, 2025

Ulteig
Ashley Ross
Project Manager
419 Riverwood Drive, Suite 201
Bismarck, ND 58504

ELLENDALE SUBSTATION EXPANSION, MONTANA-DAKOTA UTILITIES CO.,
DICKEY COUNTY, NORTH DAKOTA

We have reviewed your October 28, 2025, letter.

This project should have no adverse effect on 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, Jay Praska at 701-845-8800.



JON KETTERLING, P.E., DIRECTOR – OFFICE OF PROJECT DEVELOPMENT

57/jk/js

c: Jay Praska, Valley City District Engineer

C.1.5 – North Dakota Parks and Recreation

November 25, 2025

Ashley Ross
Ulteig
419 Riverwood Drive, Suite 201
Bismarck, ND 58504

Re: Environmental Review –Ellendale Substation Expansion

Dear Ashley Ross,

The North Dakota Parks and Recreation Department (NDPRD) has completed its review of the proposed expansion of an existing substation located in Dickey County, North Dakota.

Our review considered:

1. NDPRD Jurisdictional Properties – Properties owned, leased, or managed by NDPRD.
2. Land and Water Conservation Fund (LWCF) Section 6(f) Properties – Areas protected under federal funding agreements.
3. Natural Heritage Program Resources – Documented occurrences of rare plants, animals, and significant ecological communities within the project vicinity.

Findings:

- The proposed project does not appear to affect properties owned, leased, or managed by NDPRD.
- The proposed project does not appear to impact any properties protected under Section 6(f) of the LWCF.
- A query of the North Dakota Natural Heritage biological conservation database indicates no documented occurrences of plant or animal species of concern, or significant ecological communities, within or immediately adjacent to the project area (approximately one-mile radius).

We appreciate your commitment to conserving North Dakota's natural resources and your cooperation in the environmental review process. If you have questions or require further information, please contact me at (701) 328-5370, (701) 220-3377 (cell), or by email at kgduttenhefner@nd.gov.

Thank you for the opportunity to comment on this project.

Sincerely,



Kathy Duttenhefner
Chief, Natural Resources Division

604 E Boulevard Ave Dept. 750 | Bismarck, ND 58505

PHONE: 701-328-5357 | FAX: 701-328-5363 | EMAIL: parkrec@nd.gov | WEBSITE: www.parkrec.nd.gov

C.1.6 – North Dakota Department of Water Resources

Nov 20, 2025

Ms. Ashley Ross

Ulteig Engineering Inc
419 Riverwood Drive
Suite 201
Bismarck, ND 58504
ashley.ross@ulteig.com
701-355-2389

Dear Ms. Ross,

This is in response to your request for a review of the environmental impacts associated with the Ellendale Substation Expansion, Montana-Dakota Utilities Co Project, located in Dickey County, North Dakota.

The proposed project has been reviewed by Department of Water Resources (DWR), and the following comments are provided:

- Projects that take place within the ordinary high water mark of a North Dakota navigable waterbody (as outlined in North Dakota Century Code ch. 61-33) require prior authorization to construct from DWR. The Project(s), as described, does not appear to take place within a currently identified navigable waterbody, and does not require a North Dakota state sovereign land permit. For further information, contact Amy Winkelman, State Sovereign Land Manager, at awinkelman@nd.gov, (701)328-4935 or Travis Thyberg, State Sovereign Land Specialist, at tbthyberg@nd.gov (701)328-4988.
- There are no FEMA National Flood Insurance Program (NFIP) floodplains identified or mapped where the proposed project is to take place. No permits relative to the NFIP are likely required based on the current Flood Insurance Rate Map and State minimum standards. However, flood risk has been identified through the North Dakota Risk Assessment Mapservice and Base Level Engineering (BLE) (ndram.dwr.nd.gov). In the absence of FEMA NFIP data, BLE is often considered best available data and is recommended to be considered in the design process. The State of North Dakota has no formal NFIP permitting authority as all NFIP permitting decisions are considered by impacted NFIP participating communities, the community with zoning authority for the area in question. Please work directly with the local floodplain administrators of the zoning authorities impacted.
Tyler Spomer, NFIP Coordinator, 701-328-2452, tlspomer@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 any future projects identified in the plan, a water permit will be required per North Dakota Century Code § 61-04-02. Please consult with the DWR Water Appropriation Division if you have any questions at (701) 328-2754 or appropinfo@nd.gov.
- The DWR Regulatory Division's Engineering and Permitting Section reviewed the project location and determined it contains permitted Temporary Wetland Restoration No. R0188 (enclosed). Removal of an artificial ditch block associated with the restoration permit does not require a surface drain permit but DWR requests notification upon project completion to update the restoration's status. A permit may

be required for regrading if a pond, slough, or lake, or any series thereof, with a drainage area of 80 acres or more will be drained beyond ditch block removal. To access the surface drain application form (SFN 2830) and more information on permit requirements, please visit the Drainage and Water Management webpage under the Regulation & Appropriation tab on the DWR website (dwr.nd.gov) or contact the Regulatory Division at 701-328-2750 or dwrregpermits@nd.gov. Documents Added R0188.pdf.

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

Sincerely,

A handwritten signature in cursive script, appearing to read "Kyle Yrkoski".

Kyle Yrkoski
Planner III

KY:mg/1570

NORTH DAKOTA WETLANDS BANK-WETLAND EVALUATION FORM

1. Project Name: WEBSTER - USFWS RESTORATION
2. Applicant: EARL WEBSTER - ELLENDALE, ND / USFWS
3. County: DICKEY COUNTY Biotic Area: II
4. Location: E2NW4 & E2W2NW4,S3,-&S4,-&NE4,S9, T129N, R63W
5. Permit Number/Date Approved: N.R.<12.5 A-F R-188
6. Net effect on Wetlands Bank: 127.4 ACRES CREDIT-TEMPORARY
7. If creation/restoration, what was the former land used?
Cropland X Not Cropland
8. What type of wetland will be created? WILDLIFE HABITAT
 Temporary Seasonal Semi-permanent Premanent
9. If drainage, replacement cost per acre: N.A.
10. Total replacement cost: N.A.
11. Comments: IN W.L. BANK 8-14-90 12.4 A SEC. 3, 78.8 A SEC. 4, 36.2 A SEC. 9
R188A R188B R188C
12. Sources: APPLICATION, USFWS Special Provisions-Exhibit A,
USDA-ASCS Aerial Photo Maps

Approved by:

Cary Backstrand
State Engineer Representative

7-11-90
Date

Approved by:


Commissioner Representative

Date 19 July 90

APPLICATION TO RESTORE A WETLAND (CAPACITY LESS THAN 12.5 ACRE-FEET)

State Engineer

900 East Boulevard, Bismarck, ND 58505

Application No. R-188
SWC Project No. 1273

The capacity of each restored wetland(s) at the top of dam/ditch block must be less than 12.5 acre-feet. This application must be accompanied by ASCS aerial photographs or equivalent showing the location of the proposed restorations, and the height of each structure (from streambed to top of dam).

1. Dickey County
2. Legal description of the tract: E 1/2 of NW 1/4 and E 1/2 W 1/2 of NW 1/4 Sec 3 T129 R63 12.4 A R188A
1/4 1/4, Section 4, Twp. 129 N., Rge. 63 W. 78.8A R188B
1/4 NE 1/4, Section 9, Twp. 129 N., Rge. 63 W. 36.2A R188C
3. Describe below the proposed plan of operation, if the structure has such capabilities: _____
4. The proposed restorations are: X temporary _____ permanent

THE FOLLOWING CONDITIONS apply to each restoration on this application:

1. Prior to construction, the foundation must be stripped to remove vegetation and other unsuitable materials.
2. Fill material must not be frozen, and shall be free of sod, brush and other organic material.
3. Upstream and downstream sideslopes may not exceed three feet horizontal to one foot vertical.
4. Fill material shall be placed in approximately horizontal layers not to exceed six inches. Passage of heavy equipment over each layer is required to compact the fill material.
5. The minimum top width of the dam/ditch block shall be ten (10) feet, provided a properly designed emergency spillway is included. Without an emergency spillway, the minimum top width shall be twenty (20) feet.
6. Vegetative cover must be reestablished as soon as possible upon completion of construction.
7. By granting this permit, no liability for damages caused by improper design construction, operation, or maintenance, or failure in design, materials, or workmanship is assumed by or transferred to the State Engineer, the State Water Commission, or their employees, agents or assigns.
8. At the discretion of the State Engineer, in accordance with the exercise of any of his duties, the dam/ditch block is subject to modification at the expense of the owner.

The granting of this permit does not of itself constitute a right to appropriate water.

Name: Earl Webster

Date: 5/8/90

Address: Rt 1 Box 81, Ellendale ND 58436

Phone No.: 701-647-2866 FWS

This application must be signed by the landowner or by the legal entity sponsoring the project, who certifies that permission has been granted by the landowner.

Signed: Walt Zank

This permit is hereby: X approved _____ disapproved

David A. Sprynczynatyk
David A. Sprynczynatyk, State Engineer

8/15/90
Date



EXHIBIT A SPECIAL PROVISIONS

The wildlife habitat developments described below are agreed to by Mr. Earl Webster and the FWS
in a Wildlife Management Agreement dated May 20, 1988

Planned work The cooperator agrees to allow the Fish and Wildlife Service or its designees to enter the property for the purposes of placing ditch plugs in wetland drainage ditches (see attached map). The purpose of the ditch plugs is to restore the wetlands to their original condition while the land is enrolled in the Conservation Reserve Program. The cooperator agrees to allow the Service access to inspect the work and track the success of the wetland restorations. At the end of the term of this agreement, the landowner is free to remove the ditch plugs at his expense. The landowner shall receive a one-time, lump sum bonus payment in return for the wetland restoration work. The landowner agrees to request the Soil Conservation Service to amend the Conservation Reserve Program Conservation Plan (CP) to allow wetland restoration. No ditch plug construction will proceed without the CP being amended. The cooperator agrees, with assistance from the Service, to request approval from the State Engineer for any ditch plugs that will impound greater than 12½ acre feet of water, as required by State Law.

Itemized costs of payments, materials, supplies, completed work, and schedule of payments.

Ditch block construction: 12 ditch plugs @ \$100 ea.	\$1200.
3 ditch plugs @ \$150 ea.	450.
24 ditch plugs @ \$200 ea.	4800.
1 ditch plug @ \$250 ea.	250.
	<u>6700.</u>

Bonus payment (\$10/wetland acre restored, or minimum of \$50/wetland):

Wetland # 1: 1.3 acres (minimum rate applies)	50.00
Wetland # 2: 2.8 acres (minimum rate applies)	50.00
Wetland # 3: 3.4 acres " " "	50.00
Wetland # 4: 3.1 acres " " "	50.00
Wetland # 5: 3.2 acres " " "	50.00
Wetland # 6: 4.5 acres " " "	50.00
Wetland # 7: 0.8 acres " " "	50.00

Note: Bonus payment is available to cooperator upon receipt of invoice after the wetland restoration is completed. (continued on next page)

Completed work (as modified by mutual agreement)

Special Note

This agreement does not supercede any local, state or federal regulations that would apply to the removal of any ditch plugs at the termination of this contract.

(Continued from page 1)

Wetland # 8:	0.5 acres	(minimum rate applies)	50.00
Wetland # 9:	0.4 acres	" " "	50.00
Wetland #10:	0.8 acres	" " "	50.00
Wetland #11:	0.6 acres	" " "	50.00
Wetland #12:	1.0 acres	" " "	50.00
Wetland #13:	3.0 acres	" " "	50.00
Wetland #14:	2.5 acres	" " "	50.00
Wetland #15:	4.8 acres	" " "	50.00
Wetland #16:	4.4 acres	" " "	50.00
Wetland #17:	1.2 acres	" " "	50.00
Wetland #18:	5.5 acres		55.00
Wetland #19:	2.5 acres	(minimum rate applies)	50.00
Wetland #20:	6.4 acres		64.00
Wetland #21:	3.0 acres	(minimum rate applies)	50.00
Wetland #22:	2.5 acres	" " "	50.00
Wetland #23:	3.0 acres	" " "	50.00
Wetland #24:	0.8 acres	" " "	50.00
Wetland #25:	0.5 acres	" " "	50.00
Wetland #26:	1.4 acres	" " "	50.00
Wetland #27:	1.6 acres	" " "	50.00
Wetland #28:	4.5 acres	" " "	50.00
Wetland #29:	12.0 acres		120.00
Wetland #30:	1.2 acres	(minimum rate applies)	50.00
Wetland #31:	0.8 acres	" " "	50.00
Wetland #32:	1.5 acres	" " "	50.00
Wetland #33:	3.0 acres	" " "	50.00
Wetland #34:	2.0 acres	" " "	50.00
Wetland #35:	3.5 acres	" " "	50.00
Wetland #36:	10.0 acres		100.00
Wetland #37:	7.0 acres		70.00
Wetland #38:	10.0 acres		100.00
Wetland #39:	11.0 acres		110.00
Wetland #40:	7.0 acres		70.00
Grand total			8989.00

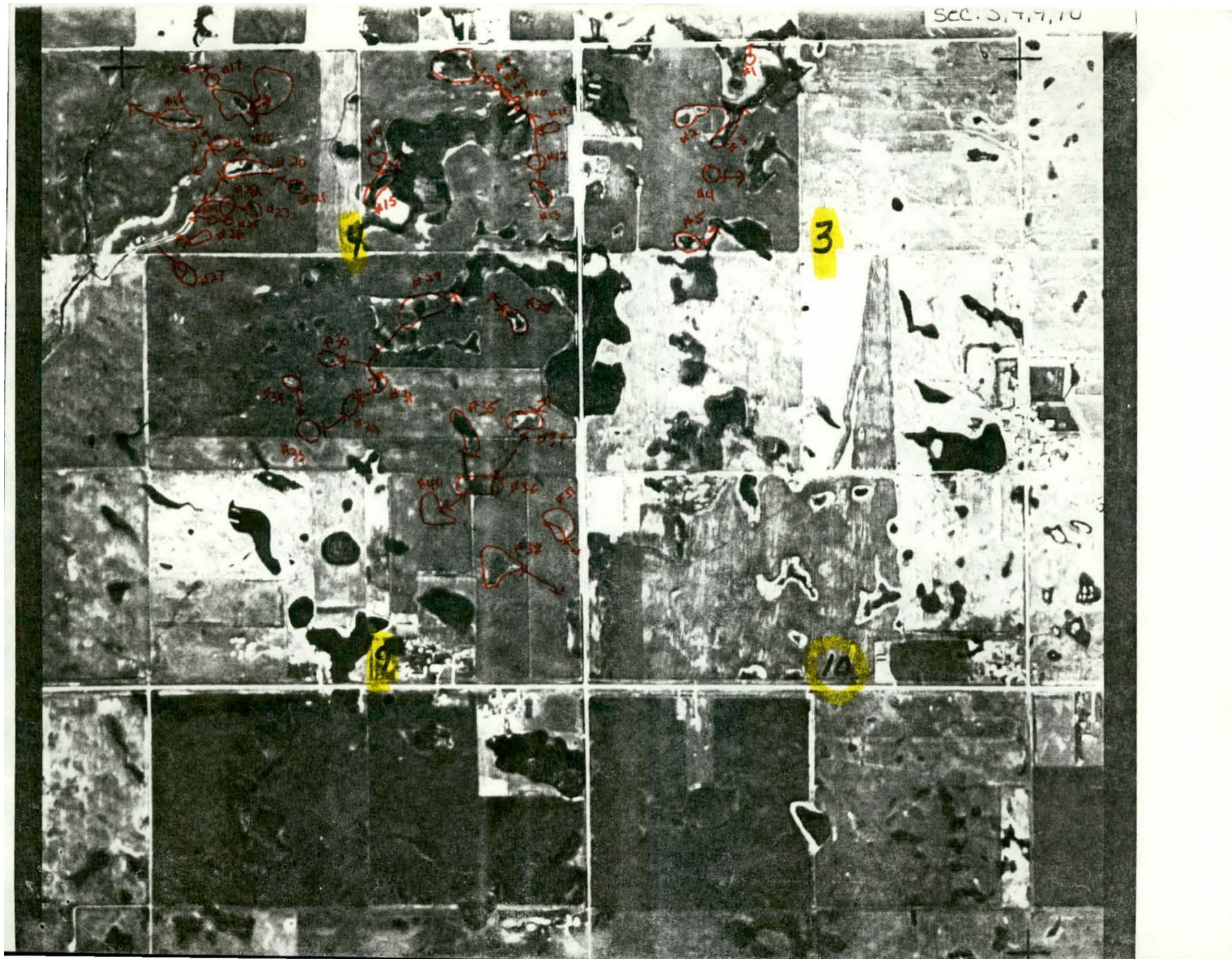
2239

Mr. Earl Webster

		<u>Present</u>	<u>Increase</u>	<u>restored</u>	<u>Ditch Plug Height</u>
Wetland SEC. 3	1	0.0	1.3	1.3 acres	36"
	2	0.4	2.4	2.8	36"
	3	0.8	2.6 12.4	3.4	36"
	4	0.0	3.1	3.1	36"
	5	0.2	3.0	3.2	36"
	6	0.4	4.1	4.5	36"
	7	0.0	0.8	0.8	30"
	8	0.0	0.5	0.5	30"
	9	0.0	0.4	0.4	30"
	10	0.0	0.8	0.8	36"
	11	0.0	0.6	0.6	30"
	12	0.1	0.9	1.0	36"
	13	0.8	2.2	3.0	36"
	14	0.0	2.5	2.5	36"
	15	1.0	3.8	2.8 4.8	36"
SEC. 4	16	0.8	3.6	4.4	36"
	17	0.0	1.2	1.2	36"
	18	0.4	5.1	5.5	36"
	19	0.0	2.5	2.5	30"
	20	1.0	5.4	6.4	36"
	21	0.8	2.2	3.0	36"
	22	0.0	2.5	2.5	36"
	23	1.0	2.0	3.0	36"
	24	0.0	0.8	0.8	36"
	25	0.0	0.5	0.5	36"
	26	0.0	1.4	1.4	36"
	27	0.0	1.6	1.6	36"
	28	0.2	4.3	4.5	36"
	29	0.4	11.6	12.0	40"

	<u>Present</u>		<u>increase</u>	<u>restored</u>	<u>Ditch Plug Height</u>
Wetland	30	0.1	1.1	1.2	36"
	31	0.2	0.6	0.8	34"
	32	0.0	1.5	1.5	36"
	33	0.0	3.0	3.0	36"
	34	0.0	2.0	2.0	36"
	35	1.2	2.3	3.5	36"
SEC. 9	36	1.6	8.4	10.0	40"
SEC. 4	37	0.0	7.0	7.0	38"
	38	0.2	9.8	10.0	40"
SEC. 9	39	0.0	11.0	11.0	42"
	40	0.0	7.0	7.0	38"
	<u>116.6</u>		<u>127.4</u>	<u>139.0</u>	

127.4 Acres to Wetland Bank



From: [Martin, Jennifer S.](#)
To: [Ashley Ross](#)
Subject: Re: Environmental Review
Date: Friday, May 22, 2026 4:50:18 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)
[image010.png](#)

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Ashley,

I apologize for my lack of response, I now see that my response to your December 18, 2025 email was saved as a draft and never sent.

The wildlife extension agreement shows that the agreement term has passed, but termination of the agreement does not negate drain permitting requirements under [ND Century Code ch. 61-32](#). I mentioned the agreement previously because a permit was issued by the Department of Water Resources (DWR) for the project. Thus, modification to the original project may require a new permit. Removal of an artificial drain plug generally does not require a DWR permit, but further drainage may require a drain permit if the watershed being drained is greater than 80 acres.

I hope this clarifies the situation. For your awareness, updates were made recently to the DWR [Drain Permits webpage](#), including the application form.

Please let me know if you'd like to discuss the matter further. I will ensure I respond timely given my inconsistency in doing so previously.

Thank you and have a great weekend.

Jennifer Martin

*Water Resource Engineer
Regulatory Division*

701.328.1347 (direct) • 701.328.3696 (fax) • jennifermartin@nd.gov • www.dwr.nd.gov



701.328.2750 (main) • dwr@nd.gov • 1200 Memorial Highway • Bismarck, ND 58504

From: Ashley Ross <ashley.ross@ulteig.com>
Date: Thursday, May 21, 2026 at 2:11 PM
To: Martin, Jennifer S. <jennifermartin@nd.gov>

Subject: FW: Environmental Review

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Hi Jennifer,

I wanted to follow up one last time regarding the Temporary Wetland Restoration project and the Wildlife Extension Agreement I previously provided. Since I have not received a response to my emails or been able to reach you by phone, we will proceed under the assumption that the agreement demonstrates closure of this issue.

As such, we are planning to move forward with filing the PSC amendment. If there are any outstanding concerns or additional information needed, please let me know as soon as possible.

Thank you,
Ashley



Ashley Ross

Senior Environmental Specialist

419 Riverwood Dr, Suite 201 • Bismarck, ND 58504

Direct: [\(701\) 355-2389](tel:7013552389) • **Mobile:** [701-302-0368](tel:7013020368) • [Microsoft Teams Chat](#)

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From: Ashley Ross

Sent: Thursday, May 14, 2026 12:46 PM

To: 'Martin, Jennifer S.' <jennifermartin@nd.gov>

Subject: RE: Environmental Review

Hi Jennifer,

I wanted to follow up on this item and see if you had any feedback or questions. When you have a chance, could you please respond so I can finalize our records on this end? If it would be easier to discuss, I'd be happy to set up a call.

Thanks!



Ashley Ross

Senior Environmental Specialist

419 Riverwood Dr, Suite 201 • Bismarck, ND 58504

Direct: [\(701\) 355-2389](tel:7013552389) • **Mobile:** [701-302-0368](tel:7013020368) • [Microsoft Teams Chat](#)

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have deleted the email and any copies.

From: Ashley Ross
Sent: Thursday, December 18, 2025 11:13 AM
To: Martin, Jennifer S. <jennifermartin@nd.gov>
Subject: RE: Environmental Review

Hi Jennifer,

I reached out to the U.S. Fish and Wildlife Service to see if they had any additional documentation, and Krista provided the original Wildlife Extension Agreement (attached). This document outlines the terms of the agreement. Based on this information, I am hoping that a drain permit application is no longer warranted.

Please let me know your thoughts.

Thanks,
Ashley



Ashley Ross
Senior Environmental Specialist
419 Riverwood Dr, Suite 201 • Bismarck, ND 58504
Direct: [\(701\) 355-2389](tel:7013552389) • **Mobile:** [701-302-0368](tel:7013020368) • [Microsoft Teams Chat](#)
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From: Martin, Jennifer S. <jennifermartin@nd.gov>
Sent: Tuesday, December 16, 2025 9:25 AM
To: Ashley Ross <ashley.ross@ulteig.com>
Subject: Re: Environmental Review

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Ashley,

As discussed today, I have provided links below to the surface drain permit application form (SFN 2830) and drain permitting policies brochure (REG_02.2024).

[Application For Surface Drain \(SFN 2830\)](#)

[REG_02.2024 – Drainage Permitting Considerations](#)

The links above and other information can be accessed on dwr.nd.gov under the Regulation & Appropriation tab at the Drainage & Water Management webpage.

Please submit the application and any supplemental documents to the email listed at the top of the form and let me know if you have any questions.

Thank you,

Jennifer Martin

Water Resource Engineer
Regulatory Division

701.328.1347 (office) • 701.328.3696 (fax) • email@nd.gov • www.dwr.nd.gov



701.328.2750 • dwr@nd.gov • 1200 Memorial Highway • Bismarck, ND 58504



From: Ashley Ross <ashley.ross@ulteig.com>

Date: Wednesday, December 10, 2025 at 2:25 PM

To: Martin, Jennifer S. <jennifermartin@nd.gov>

Subject: FW: Environmental Review

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Hi Jennifer,

I just left you a voicemail but wanted to follow up with more detailed information. I'm inquiring about the permitted Temporary Wetland Restoration project located in Section 9, Township 129 North, Range 63 West, and what actions are required before my client can proceed with construction of their project.

I requested comments from the North Dakota Department of Water Resources, and they provided a response. Both their letter and my original request are attached for your reference.

Please let me know if you need any additional information.

Thank you,



Ashley Ross

Senior Environmental Specialist

419 Riverwood Dr, Suite 201 • Bismarck, ND 58504

Direct: [\(701\) 355-2389](tel:7013552389) • **Mobile:** [701-302-0368](tel:7013020368) • [Microsoft Teams Chat](#)

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From: Yrkoski, Kyle <kyrkoski@nd.gov>

Sent: Tuesday, December 9, 2025 11:42 AM

To: Ashley Ross <ashley.ross@ulteig.com>

Subject: Re: Environmental Review

External Sender Warning: Proceed with Caution!

Hi Ashley,

As far as your follow up questions you will need to contact the following 701-328-2750 or dwrregpermits@nd.gov This is also stated on the letter in that fourth bullet point. This is the Regulatory Division's Engineering and Permitting Section contact information. They will be able to clarify what actions are needed on your end.

Let me know if you can't get ahold of them and I can find someone for you.

Thanks

Kyle Yrkoski

Planner III, Planning & Education Division

701.328.4970(d) 701.328.3696(f) kyrkoski@nd.gov www.dwr.nd.gov



701.328.2750 • dwr@nd.gov • 1200 Memorial Highway • Bismarck, ND 58504



From: Ashley Ross <ashley.ross@ulteig.com>

Date: Tuesday, December 9, 2025 at 10:31 AM

To: Yrkoski, Kyle <kyrkoski@nd.gov>

Cc: Gerrity, Michelle L. <mlgerrity@nd.gov>

Subject: FW: Environmental Review

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Hi Kyle,

Thank you for the response. I had a follow-up question about the fourth bullet regarding the permitted Temporary Wetland Restoration. Based on the map you provided, it appears the proposed project would impact a portion of Wetland #36. We completed a field wetland delineation last fall, and the USACE determined that these wetlands are non-jurisdictional. Additionally, in the response letter from the USFWS, there was no acknowledgment of this restoration project.

Given that, could you clarify exactly what actions are needed on our end?
Thank you,



Ashley Ross

Senior Environmental Specialist

419 Riverwood Dr, Suite 201 • Bismarck, ND 58504

Direct: [\(701\) 355-2389](tel:7013552389) • **Mobile:** [701-302-0368](tel:7013020368) • [Microsoft Teams Chat](#)

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From: Gerrity, Michelle L. <mlgerrity@nd.gov>

Sent: Wednesday, November 26, 2025 8:52 AM

To: Ashley Ross <ashley.ross@ulteig.com>

Subject: Environmental Review

External Sender Warning: Proceed with Caution!

Good morning,

Please see the attached information on the environmental review that was requested. Thank you!

Michelle Gerrity

Administrative Assistant

701.328.4989 (o) • 701.328.3696 (f) • mlgerrity@nd.gov • www.dwr.nd.gov



701.328.2750 • dwr.nd.gov • 1200 Memorial Highway • Bismarck, ND 58504



From: [Lundgren, Krista](#)
To: [Ashley Ross](#)
Subject: Re: [EXTERNAL] RE: Ellendale Substation Expansion
Date: Thursday, December 18, 2025 8:43:14 AM
Attachments: [image001.png](#)
[image002.png](#)
[Outlook-3seninrs.png](#)
[WEA_19880520.pdf](#)

External Sender Warning: Proceed with Caution!

Good morning Ashley,

I've attached a copy of the original Wildlife Extension Agreement. I believe this has the dates you are seeking.

Thanks for sending the documentation you had received. That was very helpful in locating the Extension Agreement.

Krista Lundgren
Acting Station Manager
Kulm Wetland Management District
One 1st Street SW | P.O. Box E
Kulm, North Dakota 58456
701-647-2866 | 701-830-0138 (cell)
www.fws.gov/refuge/kulm-wetland-management-district/



From: Ashley Ross <ashley.ross@ulteig.com>
Sent: Tuesday, December 16, 2025 10:22 AM
To: Lundgren, Krista <Krista_Lundgren@fws.gov>
Subject: [EXTERNAL] RE: Ellendale Substation Expansion

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Krista,

Thank you for your response regarding this project. I received a letter from the North Dakota Department of Water Resources identifying a Temporary Wetland Restoration project permitted through the U.S. Fish and Wildlife Service (please see the fourth bullet and application in the attached letter).

I just spoke with Jennifer Martin at the Department of Water Resources, and because she could not find any dates identifying the term of this Temporary Wetland Restoration, she is recommending that we complete a drain permit application. I'm wondering if you happen to have any documentation regarding the term of this project that might help close the loop and eliminate the need for a drain permit.

Thanks for your help!



Ashley Ross

Senior Environmental Specialist

419 Riverwood Dr, Suite 201 • Bismarck, ND 58504

Direct: [\(701\) 355-2389](tel:7013552389) • **Mobile:** [701-302-0368](tel:7013020368) • [Microsoft Teams Chat](#)

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From: Lundgren, Krista <Krista_Lundgren@fws.gov>

Sent: Wednesday, November 26, 2025 10:03 AM

To: Ashley Ross <ashley.ross@ulteig.com>

Subject: Re: Ellendale Substation Expansion

External Sender Warning: Proceed with Caution!

Ashley,

Please see attached letter for my reply. My contact information is below if you need anything further.

Have a Happy Thanksgiving!

Krista Lundgren

Acting Station Manager

Kulm Wetland Management District

One 1st Street SW | P.O. Box E

Kulm, North Dakota 58456

701-647-2866 | 701-830-0138 (cell)

www.fws.gov/refuge/kulm-wetland-management-district/

krista_lundgren@fws.gov



**NATIONAL
WILDLIFE
REFUGE SYSTEM**

Easement
90x, 1-2

WE AGREEMENT NO.
62630-88-207

WILDLIFE EXTENSION AGREEMENT

THIS AGREEMENT DATED May 20, 1988 BETWEEN Earl Webster
WILDLIFE COOPERATOR(S), AND THE U.S. FISH AND WILDLIFE SERVICE (FWS) IS ENTERED INTO PURSUANT TO
AUTHORITY CONTAINED IN SECTION 1 OF THE FISH AND WILDLIFE COORDINATION ACT, 16 U.S.C. 661 AND SECTION
7 OF THE FISH AND WILDLIFE ACT OF 1956, 16 U.S.C. 742f(a)(4).

Mr. Earl F. Webster, Rt. 1, Box 81, Ellendale, ND 58436

HEREBY AGREE TO OR PARTICIPATE WITH THE FWS IN CONDUCTING CERTAIN WILDLIFE MANAGEMENT PRACTICES
ON LANDS OWNED BY THEM IN Dickey COUNTY, STATE OF ND DESCRIBED AS FOLLOWS:

* T. 129 N., R. 63 W., section 4

T. 129 N., R. 63 W., section 9, NE $\frac{1}{4}$ (excluding farm site)

* T. 129N., R. 63 W., section 3, E $\frac{1}{2}$ of NW $\frac{1}{4}$ and E $\frac{1}{2}$ of NW $\frac{1}{4}$.

THE WILDLIFE COOPERATORS IN SIGNING THIS AGREEMENT JOIN AS PARTICIPANTS IN A WILDLIFE MANAGEMENT
PROGRAM AND GRANT TO THE FWS THE AUTHORITY TO COMPLETE WILDLIFE HABITAT DEVELOPMENT, OR TO
PERSONALLY CARRY OUT WILDLIFE MANAGEMENT ACTIVITIES WITH FINANCIAL OR MATERIAL SUPPORT, AS
DESCRIBED IN THE ATTACHED SPECIAL PROVISIONS (EXHIBIT A). ANY DONATION OF SUPPLIES OR EQUIPMENT, OR
DIRECT PAYMENT FROM THE FWS TO THE WILDLIFE COOPERATORS FOR CARRYING OUT THE WILDLIFE HABITAT
DEVELOPMENTS, ARE ALSO INCLUDED IN THE ATTACHED SPECIAL PROVISIONS (EXHIBIT A).

THE TERMS OF THIS AGREEMENT WILL BE FOR 9.3 YEARS BEGINNING May 20, 1988, AND ENDING
Aug. 30, 1997. PAYMENT AS APPROPRIATE WILL BE MADE AS DESCRIBED AND AGREED TO IN EXHIBIT A.

THIS AGREEMENT MAY BE MODIFIED AT ANY TIME BY MUTUAL WRITTEN CONSENT. IT MAY ALSO BE TERMINATED IN
WRITING BY EITHER PARTY THIRTY (30) DAYS IN ADVANCE. IF TERMINATED BY THE COOPERATOR, COOPERATOR
WILL REIMBURSE FWS FOR THE COST OF THE WILDLIFE HABITAT DEVELOPMENTS. IF THIS AGREEMENT IS
TERMINATED IN WRITING BY THE FWS, THEN FWS MAY AT ITS OPTION REMOVE ANY WILDLIFE DEVELOPMENTS
PLACED ON THE LAND.

AT THE END OF THE TERM, THE WILDLIFE HABITAT DEVELOPMENT WILL BECOME THE PROPERTY OF THE WILDLIFE
COOPERATOR.

THE FWS DOES NOT ASSUME JURISDICTION OVER THE PREMISES BY THIS AGREEMENT. THE WILDLIFE COOPERATOR
RETAINS ALL RIGHTS TO CONTROL TRESPASS AND RETAINS ALL RESPONSIBILITY FOR TAXES, ASSESSMENTS, AND
DAMAGE CLAIMS.

THE FWS, ITS AGENTS, OR ASSIGNEES RESERVE THE RIGHT TO ENTER THE LAND AT REASONABLE TIMES FOR
WILDLIFE HABITAT DEVELOPMENT AND MANAGEMENT PURPOSES AND TO INSPECT COMPLETED WORK.

THE SERVICE ASSUMES NO LIABILITY FOR DAMAGE OR INJURY OTHER THAN THAT CAUSED BY ITS OWN
NEGLIGENCE, ON THE ABOVE ACREAGE.

SPECIFIC WORK COMPLETED WILL BE DOCUMENTED ON EXHIBIT A.

A CHANGE IN OWNERSHIP SHALL NOT CHANGE THE TERMS OF THIS AGREEMENT. THE AGREEMENT AND TERMS
SHALL BE IN EFFECT ON THE DESCRIBED LAND FOR THE PERIOD OF THE AGREEMENT. THE WILDLIFE COOPERATOR
WILL NOTIFY THE FWS OF PLANNED OR PENDING CHANGES IN OWNERSHIP.

THE COOPERATOR AGREES NOT TO ALLOW ANY AGRICULTURAL USE OF THE TRACT SUCH AS LIVESTOCK GRAZING
OR HAYING, UNLESS INCLUDED AS PART OF THIS OR AN AMENDED AGREEMENT.

AT THE END OF THIS AGREEMENT, THE COOPERATOR ASSUMES FULL AND COMPLETE RESPONSIBILITY FOR ALL WILDLIFE HABITAT DEVELOPMENTS MADE DURING THIS AGREEMENT ON THE PROJECT TRACT. THERE SHALL BE NO OBLIGATION TO ANY OF THE AGENCIES OF THE AGREEMENT AFTER THE TERM OF THE AGREEMENT HAS EXPIRED.

THE LANDOWNER WILL BE RESPONSIBLE FOR SECURING ANY NECESSARY PERMITS. TECHNICAL ADVICE AND SUPPORT WILL BE PROVIDED BY PARTICIPATING AGENCIES IN THE APPLICATION FOR THE PERMIT.

THE FWS IS PROHIBITED BY LAW FROM MAKING OBLIGATIONS THAT EXCEED AVAILABLE FUNDS AND, THEREFORE, THE FWS CAN DO ONLY THAT WORK WHICH IS FUNDED. IN THE EVENT FUNDS ARE NOT AVAILABLE TO DO THE WILDLIFE HABITAT DEVELOPMENT WORK WITHIN THE PERIOD OF TIME OR IN THE MANNER PRESCRIBED IN THE SPECIAL PROVISIONS, THE FWS WILL ADVISE THE WILDLIFE COOPERATOR OF THAT FACT.

WILDLIFE COOPERATOR GUARANTEES OWNERSHIP OF THE ABOVE-DESCRIBED LAND AND WARRANTS THAT THERE ARE NO OUTSTANDING RIGHTS WHICH INTERFERE WITH THE WILDLIFE MANAGEMENT AGREEMENT.

x Earl F. Webster
WILDLIFE COOPERATOR

REDACTED

SOCIAL SECURITY NUMBER*

Michael D. Murphy
FWS, REFUGE MANAGER

RAS
10/11/00
DH

Robert J. Vander Burge
Project Leader

Robert B. Krund
FWS, ASSISTANT REGIONAL DIRECTOR,
REFUGES AND WILDLIFE

- * **PRIVACY ACT NOTICE:** THE FWS IS REQUIRED TO OBTAIN THIS INFORMATION TO PROCESS ANY PAYMENT(S) TO THE WILDLIFE COOPERATOR AS A RESULT OF THIS AGREEMENT. THIS INFORMATION WILL BE FURNISHED TO THE INTERNAL REVENUE SERVICE AS REQUIRED BY THE TAX REFORM ACT OF 1986 AND MAY BE SHARED WITH THE DEPARTMENT OF JUSTICE FOR CRIMINAL OR CIVIL LITIGATION. FURNISHING A SOCIAL SECURITY NUMBER IS VOLUNTARY, BUT FAILURE TO DO SO MAY RESULT IN DISQUALIFICATION FROM THIS PROGRAM.

C.1.7 – USFWS, Kulm Wetland Management District



IN REPLY REFER TO:
FWS/R6/

United States Department of the Interior

FISH AND WILDLIFE SERVICE Kulm Wetland Management District



MAILING ADDRESS:
Post Office Box E
Kulm, North Dakota 58456

STREET LOCATION:
One First Street SW
Kulm, North Dakota 58456

November 26, 2025

RE: Ellendale Substation Expansion, Montana-Dakota Utilities Co.
Dickey County, North Dakota

Ulteig
Ashley Ross, Project Manager
419 Riverwood Drive, Suite 201
Bismarck, ND 58504
Ashley.ross@ulteig.com

Dear Ashley:

Thank you for the opportunity to comment on the proposed MDU Ellendale Substation Expansion. I have reviewed the proposed project location. There are no U.S. Fish and Wildlife Service property interests in the project location. If you have need of any information on Endangered Species Act-related topics, please contact the Ecological Services office in Bismarck, North Dakota. If you have further questions for me about our land interests in the area, please contact me at the mailing address above, by phone to 701-647-2866, or by email to krista_lundgren@fws.gov.

Sincerely,

Krista Lundgren
Acting District Manager

C.1.8 – State Historical Society of ND



December 1, 2025

Ashley Ross
Ulteig
419 Riverwood Dr, Ste 201
Bismarck ND, 58504
Ashley.ross@ulteig.com

SHSND Ref.: 26-0038 Ellendale Substation Expansion in portions of [T129N R63W Section 9] in Dickey County, North Dakota

Dear Ashley,

From your submission on behalf of Montana-Dakota Utilities Co., it is our understanding that SHSND Ref: 26-0038 involves construction of new substation facilities immediately west of and adjoining to the existing substation. It is our determination that there are no significant sites affected by this project provided the project takes place in the location and in the manner described in the documentation.

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 Lorna Meidinger, Lead Historic Preservationist at lbmeidinger@nd.gov or (701) 328-2089.

Sincerely,

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

26-0038

Appendix D - Solicitation 2 Correspondence

Type	Agency Required by NDAC 65-06-01-05	Salutation	First Name	Last Name	Title	Department	Agency	Address	City	State	Zip
STATE		1 Mr.	Kyle	Wanner	Director		ND Aeronautics Commission	PO Box 5020	Bismarck	ND	58502-5020
STATE		2 Mr.	Drew	Wiegley	Attorney General		ND Attorney General	600 E. Boulevard Ave Dept. 125	Bismarck	ND	58505
STATE		3 Mr.	Doug	Goehring	Agriculture Commissioner		ND Department of Agriculture	600 E. Boulevard Ave Dept 602	Bismarck	ND	58505-0020
STATE		4 & 5 Mr.	Pat	Traenkle	Interim Director		ND Department of Health and Human Services	600 East Boulevard Ave Dept 325	Bismarck	ND	58505-0250
STATE		6 Mr.	Zachary	Greenberg	Commissioner of Labor		ND Department of Labor and Human Rights	600 East Boulevard Ave Dept 406	Bismarck	ND	58505-0340
STATE		7 Mr.	Wayde	Sick	Director and Executive Officer		ND Department of Commerce	600 East Boulevard Avenue	Bismarck	ND	58505-0610
STATE		8 Mr.	Chris	Schlenker	Commissioner		ND Department of Commerce	1600 E. Century Ave., Suite 6	Bismarck	ND	58503
STATE		9 & 10 Mr.	Joseph	Heninger	Land Commissioner		ND Department of Trust Lands	1707 N 3th St	Bismarck	ND	58501-5323
STATE		11 Ms.	Jeb	Williams	Executive Director		ND Game and Fish Department	100 N. Bismarck Expressway	Bismarck	ND	58501-5095
STATE		12 Governor	Karen	Armstrong	Governor		ND Industrial Commission	600 E. Boulevard Ave. Dept. 405	Bismarck	ND	58505-0840
STATE		13 Mr.	Kelly	Henke, PE	Director		ND Office of the Governor	600 East Boulevard Avenue	Bismarck	ND	58505-0100
STATE		14 Mr.	Ron	Peterson	Director		ND Department of Transportation	608 East Boulevard Avenue	Bismarck	ND	58505-0700
STATE		15 Mr.	Brad	Hawk	Executive Director		State Historical Society of ND	612 East Boulevard Ave.	Bismarck	ND	58505
STATE		16 Mr.	Patrick	Bertagnolli	Executive Director		ND Indian Affairs Commission	600 E. Boulevard Ave.	Bismarck	ND	58505
STATE		18 Mr.	Cody	Schultz	Director		Job Service ND	PO Box 5507	Bismarck	ND	58506-5507
FEDERAL		19 Mr.	Dan	Hovland	State Conservationist	North Dakota State Office	ND Department of Parks and Recreation	604 E Boulevard Ave, Dept. 750	Bismarck	ND	58505
STATE		20 Mr.	Reice	Haase	Director		Natural Resources Conservation Service	PO Box 1458	Bismarck	ND	58502-1458
STATE		21 Mr.	Darin	Hanson	Director		ND Department of Water Resources	1200 Memorial Highway	Bismarck	ND	58504-5262
FEDERAL		22 Mr.	Luke	Toso	North Dakota Ecological Services Office	Homeland Security and Emergency Managem	Department of Emergency Services	PO Box 5511	Bismarck	ND	58504
FEDERAL		23 Ms.	Krista	Lundgren	Acting District Manager	North Dakota Ecological Services Office	US Fish and Wildlife Service	3425 Miriam Avenue	Bismarck	ND	58501-7926
FEDERAL		24 Mr.	Benjamin	Solseth	State Program Manager	Kuim Wetland Management District	US Fish and Wildlife Service	1 First Street SW PO Box E	Kulm	ND	58456-7112
FEDERAL		25 Mr.	Dave	Anderson	Assistant Manager	North Dakota Regulatory Office	US Army Corps of Engineers	3319 University Drive	Bismarck	ND	58504
COUNTY		26 Ms.	Brandon	Carlson	Chairman	Dakota-Minnesota Airports District Office	Federal Aviation Administration	2301 University Dr, Bldg 238	Bismarck	ND	58504
STATE		27 Ms.	Claire	Vigesaa	Executive Director	North Dakota Transmission Authority	Dickey County Commissioners	309 2nd St N	Ellendale	ND	58436
STATE		28 Mr.	Justin	Kringstad	Director	North Dakota Pipeline Authority	ND Industrial Commission	600 E. Boulevard Ave. Dept. 405	Bismarck	ND	58505-0840
STATE		29 Mr.	David	Murphy	State Geologist	Geological Survey	ND Department of Environmental Quality	4201 Normandy Street	Bismarck	ND	58503-1324
STATE		30 Mr.	Edward	Clayes	State Forester	North Dakota Forest Service	ND Department of Mineral Resources	600 East Boulevard Avenue - Dept. 474	Bismarck	ND	58505-0614
FEDERAL		31 Ms.	Thomas	Warren	District Manager	Eastern Montana/Dakotas District Office	Bureau of Land Management	916 E Interstate Avenue Suite #4	Bismarck	ND	58503-1227
FEDERAL		32 Ms.	Wendy	Beard	Director	Cable Affairs Officer	Military Aviation and Installation Assurance Siting Clearinghouse	111 Garryowen Road	Miles City	MT	59301
FEDERAL		33 Mr.	Robbin	Munos	Chief Missile Engineering	91st Missile Maintenance Squadron	3400 Defense Pentagon, Room 5C646	300 Minuteman Drive	Washington	DC	20301-3400
FEDERAL		34 Mr.	Cy	Lewis, PE	Deputy Base Civil Engineer	319 CES/CD	Minot AFB	445 Peacekeeper Place	Minot AFB	ND	58705
FEDERAL		35 Sir or Madam	Daniel	Lewis, PE			Grand Forks AFB	525 Tuskegee Airmen Blvd.	Grand Forks AFB	ND	58205-6434



We listen. We solve.®

March 3, 2026

RE: Supplemental Update to the Ellendale Substation Expansion
Montana-Dakota Utilities Co.
Dickey County, North Dakota

Dear:

On behalf of Montana-Dakota Utilities Co. (Montana-Dakota), Ulteig is preparing an application for an amended certificate of corridor compatibility for the previously sited Big Stone South-Ellendale 345kV Transmission Line Project & Associated Ellendale 345-kV Substation (PU-13-840). This application, which will be submitted to the North Dakota Public Service Commission pursuant to the *North Dakota Energy Conversion and Transmission Facility Siting Act*, is for the Ellendale Substation Expansion Project, which involves expanding an existing substation in Dickey County, North Dakota. Please see the enclosed Project Corridor Map for reference. This letter serves as a supplemental update to the previous Ellendale Substation Expansion letter dated October 28, 2025.

The Ellendale Substation Expansion Project proposes to expand the existing substation footprint westward. Construction is anticipated to begin in 2026 with an estimated completion date of December 2026. No federal nexus [is anticipated OR has been identified] for the project.

We are soliciting your views and comments on the proposed project. In particular, we are interested in any property near the project area in which your agency may have an interest, as well as any proposed developments your agency may be considering nearby. Any information that may assist us in preparing the application would be greatly appreciated.

Please provide any comments or information you may have regarding the Ellendale Substation Expansion by **April 3, 2026**. If you have any questions or require additional information, please don't hesitate to contact me. Thank you for your time and cooperation.

Sincerely,

Ashley Ross
Project Manager
701.355.2389 | Ashley.ross@ulteig.com



 Project Corridor
 PLSS Sections

Ellendale Substation Expansion

Dickey County, North Dakota

0 500
US Feet



1:7,000



Created By: A. Fisher
Date Exported: 2/24/2026
Sources: Ulteig, USGS, NDGIS
Background: NDSWC 2023 Aerial

D.1.1 – NDDOT – Valley City District

Thompson, Pamela

From: Praska, Jay
Sent: Monday, March 9, 2026 10:42 AM
To: Thompson, Pamela
Subject: RE: SOV Request for Supplemental Update to the Ellendale Substation Expansion - Dickey County_
_Ulteig_OPD DIR

Hi Pam
No comments from the VC District.
Thanks
Jay P

From: Thompson, Pamela <pamthompson@nd.gov>
Sent: Friday, March 6, 2026 3:26 PM
To: Praska, Jay <jpraska@nd.gov>
Cc: Ketterling, Jonathan <jketterl@nd.gov>
Subject: SOV Request for Supplemental Update to the Ellendale Substation Expansion - Dickey County_
_Ulteig_OPD DIR

Please review and comment.

Thank you.

Subject Title	Document Link	Properties Link
SOV Request for Supplemental Update to the Ellendale Substation Expansion - Dickey County_ _Ulteig_OPD DIR	Document	Properties

D.1.2 – North Dakota Transmission Authority

From: [Vigesaa, Claire](#)
To: [Ashley Ross](#)
Subject: Supplemental Update to the Ellendale Substation Expansion
Date: Wednesday, March 11, 2026 4:06:23 PM

You don't often get email from cvigesaa@nd.gov. [Learn why this is important](#)

External Sender Warning: Proceed with Caution!

Ashley,

I received your solicitation letter regarding the supplemental update to the Ellendale Substation Expansion. We have no concerns with the project and are supportive of your Ellendale Substation Expansion Project.

We appreciate your investment in the ND grid that leads to economic growth in our state.

Best Regards,

Claire

Claire Vigesaa, Executive Director
North Dakota Transmission Authority
406-489-3881

D.1.3 - USACE, ND Regulatory Office

From: [Nygard, Jeremy S CIV USARMY CENWO \(USA\)](#)
To: [Ashley Ross](#)
Subject: NWO-2012-02940-BIS, Ulteig Engineering; MDU; Ellendale Substation Expansion
Date: Monday, March 23, 2026 3:54:19 PM
Attachments: [image001.png](#)
[image002.png](#)
[20260310_SOV-request.pdf](#)
[NWO-2012-02940_20251106_Email response to agent.pdf](#)

Hi Ashley,

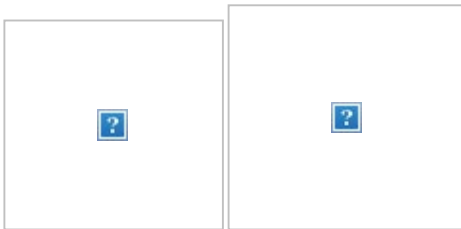
I received the attached request from you on March 10. Previously, I received a similar request in the mail from you on November 4, 2025 and replied on November 6, 2025 (email attached).

We already received a JD request for this project from Jeff Moss at Ulteig Engineering (you were cc'd) on October 15, 2025 and project manager Hadden Carlberg sent Jeff the completed AJD on October 24, 2025. Project # NWO-2012-02940-BIS. I don't intend to create a response letter for the new request since we've already reviewed any wetlands in the project area.

None of the wetlands were jurisdictional so no Section 404 permit is required from our office. If the project area changes in the future to include wetlands that haven't already been reviewed, then please let me know. If you have any questions, please let me know. Thanks,

v/r

Jeremy Nygard
Regulatory Program Assistant
U.S. Army Corps of Engineers
North Dakota Regulatory Office
3319 University Drive
Bismarck, ND 58504
Direct: 701-989-6425
Office General Line: 701-255-0015



Check out our new Nation-wide [Recommended Minimum Standards for Aquatic Resource Delineation Reports!](#)

Please Note: In our aim to improve efficiency, the North Dakota Regulatory Office prefers that all submissions and requests be sent electronically to the *NEW* [Regulatory Request](#)

System (RRS) or to: CENWO-OD-RND@usace.army.mil instead of a hard copy by mail. Please split large attachments (>25 MB) into multiple emails if needed. We will continue to accept and issue paper documents that meet our file requirements upon request in order to accommodate those with limited computer access.

D.1.4 – North Dakota Aeronautics Commission

From: [Dillin, Adam](#)
To: [Ashley Ross](#)
Cc: [Wanner, Kyle C.](#)
Subject: NDAC Comments on Ellendale Substation Expansion Project
Date: Thursday, March 26, 2026 1:23:01 PM

You don't often get email from adillin@nd.gov. [Learn why this is important](#)

External Sender Warning: Proceed with Caution!

Good afternoon,

My name is Adam Dillin and I'm an Airport Planner with the North Dakota Aeronautics Commission. I'm writing you regarding the proposed project to expand the electrical substation near the Applied Digital data center in Ellendale.

Upon review of your letter and diagram, I do not anticipate the project to have any detrimental impact on aviation in the Ellendale area. However, depending on the height of the transmission lines, towers, or related infrastructure that are planned to be constructed, they may trigger the Federal Aviation Administration requirement found in 14 CFR § 77.9(b) that mandates the FAA be notified of the proposed project so that they may conduct an official airspace review. It is my recommendation that an airspace case be submitted as a precaution to ensure that no conflicts exist. Airspace cases may be submitted to the FAA through their Obstruction Evaluation/Airport Airspace Analysis portal found at: <https://oeaaa.faa.gov/oeaaa/oe3a/main/#/home>.

Best regards,

Adam Dillin, CM, ACE, IACE

Airport Planner

North Dakota Aeronautics Commission

Tel: (701) 328-9657 Email: adillin@nd.gov Website: <https://aero.nd.gov>



D.1.5 – State Historical Society of ND



March 30, 2026

Ashley Ross
Ulteig
419 Riverwood Dr, Ste 201
Bismarck ND, 58504
Ashley.ross@ulteig.com

SHSND Ref.: 26-0038 Ellendale Substation Expansion in portions of [T129N R63W Section 9] in Dickey County, North Dakota

Dear Ashley,

From your submission on behalf of Montana-Dakota Utilities Co., it is our understanding that the expanded area for SHSND Ref: 26-0038 involves construction of new substation facilities immediately west of and adjoining to the existing substation. The project expansion also includes work on the site of the existing station. It is our determination that there are no significant sites affected by this project provided the project takes place in the location and in the manner described in the documentation.

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 Lorna Meidinger, Lead Historic Preservationist at lbmeidinger@nd.gov or (701) 328-2089.

Sincerely,

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

26-0038

D.1.6 - North Dakota Game & Fish

From: [Schumacher, John D.](#)
To: [Ashley Ross](#)
Subject: RE: Ellendale Substation Expansion Project -- Supplemental Update
Date: Monday, March 30, 2026 10:59:58 AM
Attachments: [image002.png](#)

You don't often get email from jdschumacher@nd.gov. [Learn why this is important](#)

External Sender Warning: Proceed with Caution!

Ashley Ross
Project Manager
Ulteig

RE: Ellendale Substation Expansion Project – Supplemental Update

The North Dakota Game and Fish Department has reviewed this project as revised. We do not have any additional concerns, our original comments are still applicable.

J.D. Schumacher

Resource Biologist

701.328.6321 • jdschumacher@nd.gov • gf.nd.gov

NORTH
Dakota | Game and Fish
Be Legendary.™

D.1.7 - North Dakota Parks and Recreation

April 1, 2026

Ashley Ross
Ulteig
419 Riverwood Drive, Suite 201
Bismarck, ND 58504

Subject: Environmental Review –Ellendale Substation Expansion – MDU Dickey County

Dear Ashley Ross,

The North Dakota Parks and Recreation Department (NDPRD) has completed its review of the proposed expansion of the Ellendale Substation in Dickey County, North Dakota.

NDPRD's review scope includes:

- Properties owned, leased, or managed by NDPRD.
- Properties protected under Section 6(f) of the Land and Water Conservation Fund (LWCF).
- Plant species of concern and significant ecological communities documented through NDPRD surveys, federally listed species data, and information provided by partner agencies with jurisdictional authority.

Findings:

- **NDPRD Managed Lands:** The proposed project does not occur on or adjacent to properties owned, leased, or managed by NDPRD.
- **LWCF Section 6(f) Compliance:** The proposed project does not appear to affect properties protected under Section 6(f) of the LWCF.
- **Biological Resources:** A review of internal records indicates no documented occurrences of species of concern or significant ecological community resources within the project area. Site-specific field verification may be conducted, as appropriate, prior to project implementation to confirm existing conditions.

Notice Regarding Natural Heritage Data: As of January 1, 2026, the North Dakota Parks and Recreation Department (NDPRD) has discontinued its annual Biotics database license and data-sharing agreement with NatureServe. Consequently, NDPRD will no longer include standard Natural Heritage Program data in responses to solicitations of views or environmental review documents.

Our reviews are now limited to internal data regarding managed lands and specific species of concern. For comprehensive ecological data or statewide species occurrences, we encourage you to refer to the NatureServe Explorer webpage. NatureServe is the definitive source for information on rare and

604 E Boulevard Ave Dept. 750 | Bismarck, ND 58505

PHONE: 701-328-5357 | FAX: 701-328-5363 | EMAIL: parkrec@nd.gov | WEBSITE: www.parkrec.nd.gov

endangered species and ecosystems in the Americas. Their online guide provides information on the 100,000 species and ecosystems tracked across the network.

Resource Link: <https://explorer.natureserve.org/>

We appreciate your commitment to conserving rare plants, animals, and ecological communities, and your cooperation in the inter-agency environmental review process. For further information, please contact me at (701) 328-5370, (701) 220-3377 (cell), or kgduttonhefner@nd.gov.

Thank you for the opportunity to comment on this proposed project.

Sincerely,



Kathy Duttonhefner
Chief, Natural Resources Division

D.1.8 – Dickey County

Phone Log

- **Date/Time:** May 20, 2026; 1:05 PM
- **Contact:** Casey Holm
- **Organization:** Dicky County Commission
- **Method:** Phone
- **Subject:** Floodplain – Ellendale Substation Expansion
- **Discussion Summary:** Ashley explained the proposed substation expansion to Casey and noted that the FEMA website identified the area as “Not Printed,” indicating no mapped floodplain is present. Ashley asked whether any additional floodplain coordination with Dickey County would be required. Casey stated that the only floodplain areas in Dickey County are located on the east side of the county and confirmed that no floodplain concerns are anticipated for the proposed project.
- **Decisions Made:** There is no FEMA floodplain at the proposed substation expansion.
- **Follow-Up Actions:** None
- **Documented By:** Ashley Ross

Phone Log

- **Date/Time:** May 20, 2026; 1:20 PM
- **Contact:** Terry Weis
- **Organization:** Dicky County Weed Board
- **Method:** Phone
- **Subject:** Weed Management – Ellendale Substation Expansion
- **Discussion Summary:** Ashley explained the proposed substation expansion to Terry and inquired whether Dickey County has a Weed Management Plan. Terry stated that the county does not have a formal weed management plan but recommended maintaining annual weeds and keeping the area free of noxious weeds. He also noted that the existing substation is currently being maintained appropriately in this regard.
- **Decisions Made:** None
- **Follow-Up Actions:** None
- **Documented By:** Ashley Ross

Appendix E – Class III Cultural Resource Inventory

MANUSCRIPT DATA RECORD FORM

1. Manuscript Number:
2. SHPO Reference #:
3. Author(s): Michele Wiker
4. Title: Montana-Dakota Utilities Co. Ellendale Substation Expansion Project: Class III Cultural Resource Inventory, Dickey County, ND
5. Report Date: October 17, 2025
6. Number of Pages: 7
7. Type – I, T, E, O: I
I=Inventory; T=Formal Testing; E=Excavation; O=Other
8. List formally tested or excavated sites (not probes): N/A
9. Acres: 16.3
10. List the legal description* and study unit. For study unit assignment, use the township tables in the *State Plan*, http://history.nd.gov/hp/stateplan_arch.html.
Study Units: LM, CB, KN, HE, SM, GA, JA, GR, NR, SR, SO, SH, YE

*For *inventory*, *formal testing* and *excavation* projects, list the *CLASS III* legal locations only.

<u>County</u>	<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Study Unit</u>
Dickey	129N	63W	9	JA

Negative Class III Survey Form Report (for surveys 40 acres or less)

Cultural Resource Report Information

Report Title: Montana-Dakota Utilities Co. Ellendale Substation Expansion: Class III Cultural Resource Inventory, Dickey County, ND

Funding/Permitting Agency(s): North Dakota Public Service Commission/USACE

Cultural Resource Firm/Federal Agency/State Agency: Ulteig Operations, LLC

Report Author: Michele Wiker

Principal Investigator (Signature and Title): Jeani Borchert, PI

Report Date: October 17, 2025

Field Personnel: Michele Wiker

Survey Date(s): September 15, 2025

Location Information and Survey Conditions

County(s): Dickey

USGS 7.5' Topographic Quadrangle(s): Ellendale North

Project Type/Title: Class III Inventory/Ellendale Substation Expansion

Section: 9 Township: 129N Range: 63W

Project Description and Purpose: Montana-Dakota Utilities Company (Montana-Dakota) has proposed the expansion of the Ellendale 345 Transmission Substation located in Dickey County, North Dakota. The proposed project would consist of expanding this substation's footprint to the west ultimately to provide a redundant (backup) power source to MDU's Ellendale Data Center Transmission Substation that provides electrical service to Polaris Forge 1, which is an Applied Digital AI-optimized data center campus located directly north of the facility (**Figure 1, Figure 2**). The project area is located approximately 1.5 miles west of Ellendale, North Dakota.

The Area of Potential Effect (APE) for this project consists of the entire parcel of land to the west of the extant substation which is owned by Montana-Dakota. For this project, the APE and the Class III cultural resource inventory are identical.

Instructions: Submission of this report must include: 1) a paper copy, 2) a PDF version, and 3) the corresponding shapefiles. Submit to the Archaeology & Historic Preservation Division of the State Historical Society of North Dakota at 612 E Boulevard Ave, Bismarck, ND 58505.

Montana-Dakota will require a Certificate of Site Compatibility permit application to be submitted to the North Dakota Public Service Commission. In addition, there is the potential for a federal permit as the project may impact United States Army Corps of Engineers jurisdictional wetlands. Federal permitting initiates the Section 106 process of the National Historic Preservation Act (36 CFR Part 800). This process requires federal agencies to take into account the effects any undertaking has on historic properties.

General Project Location (Directions to project area): From Ellendale, ND, head west on ND-11/97.5 St SE and proceed for 2 miles. Turn right onto 87th Ave SE and proceed for 1.5 miles. The project area is located 0.15 miles to the west and abuts the western edge of the extant substation.

APE Area (Acres): 16.3 Number of Acres Surveyed: 16.3

Topography: The inventory area is located within the plains of the Elm River and is predominately flat and low-lying. A few pothole lakes are present to the west and south of the project area. Pockets of wetlands are present within the inventory area and throughout the surrounding area. One small, elevated rise was present in the center of the inventory area.

Soils: There are three soil types located within the inventory area. The majority of the inventory area (57.6 percent) is composed of Swenoda-Barnes fine sandy loams, 0 to 3 percent slopes that derives from coarse-loamy eolian deposits over fine-loamy till. Windmere-Tiffany fine sandy loams, 0 to 2 percent slopes composed 31.4 percent of the inventory area, mostly located in areas of wetlands. They are derived from glaciofluvial deposits and/or glaciolacustrine deposits. The remaining 11.1 percent of soil is composed of Clontarf fine sandy loam, 2 to 3 percent slopes derived from glaciolacustrine deposits.

Current and Historical Land Use: The area has been utilized for agricultural production since 1951 into the present day. At the time of fieldwork, the inventory area was planted with alfalfa.

Vegetation (including % visibility): Alfalfa, 25 to 75 percent

Environmental Limitations to Survey: None

Surface and/or Minerals Ownership: Montana-Dakota Utilities Co.

Other comments: Surrounding area is heavily developed by transmission lines and the construction of a data center to the north. Two transmission lines traverse a portion of the inventory area to enter the extant substation.

Background and Survey Information

Historic Plats/Atlases/Sources: North Dakota SHPO site files, USDA Web Soil Survey, Historic Aerials, North Dakota Department of Water Resources Historical Maps and Aerial Photography Map Service

Study Unit: James River

Instructions: Submission of this report must include: 1) a paper copy, 2) a PDF version, and 3) the corresponding shapefiles. Submit to the Archaeology & Historic Preservation Division of the State Historical Society of North Dakota at 612 E Boulevard Ave, Bismarck, ND 58505.

Previous Sites within APE¹: None

Previous Sites outside APE within 1 mile: There are no cultural resources documented outside of the APE within a 1-mile radius.

Previous Surveys within APE:

MS #	Title	Primary Author	Date
12310	Class III Archaeological Resource Inventory for a 230 kV transmission Line from the Merricourt Wind Farm to the Ellendale Junction Substations, Dickey and McIntosh Counties, ND.	D. Eigenberger	2011
15864	Class III Intensive Cultural Resources Inventory: Historic Structures Inventory and Evaluation, Big Stone South to Ellendale 345 kV Transmission Line Project, Dicky County, North Dakota to the South Dakota Border.	K. Palmer	2015

Previous Surveys outside APE within 1 mile:

MS #	Title	Primary Author	Date
9309	An Archaeological Survey of a Proposed Communications Tower Site in the Township of Ellendale, Dickey Co., ND.	P.H. Salkin	2005

Date of File Search: September 11, 2025

Survey Methodology (transect intervals): Transects were spaced no greater than 15 meters apart. Additional transects were conducted over the small rise in the center of the field where there was a higher probability of locating cultural resources.

Shovel/Auger Probing Methodology: No shovel probes were conducted.

Area Surveyed (Acres): 16.3

Time Expended (Person Hours): 1.5 hours

Recommendation: No Historic Properties Affected

Other Comments: None

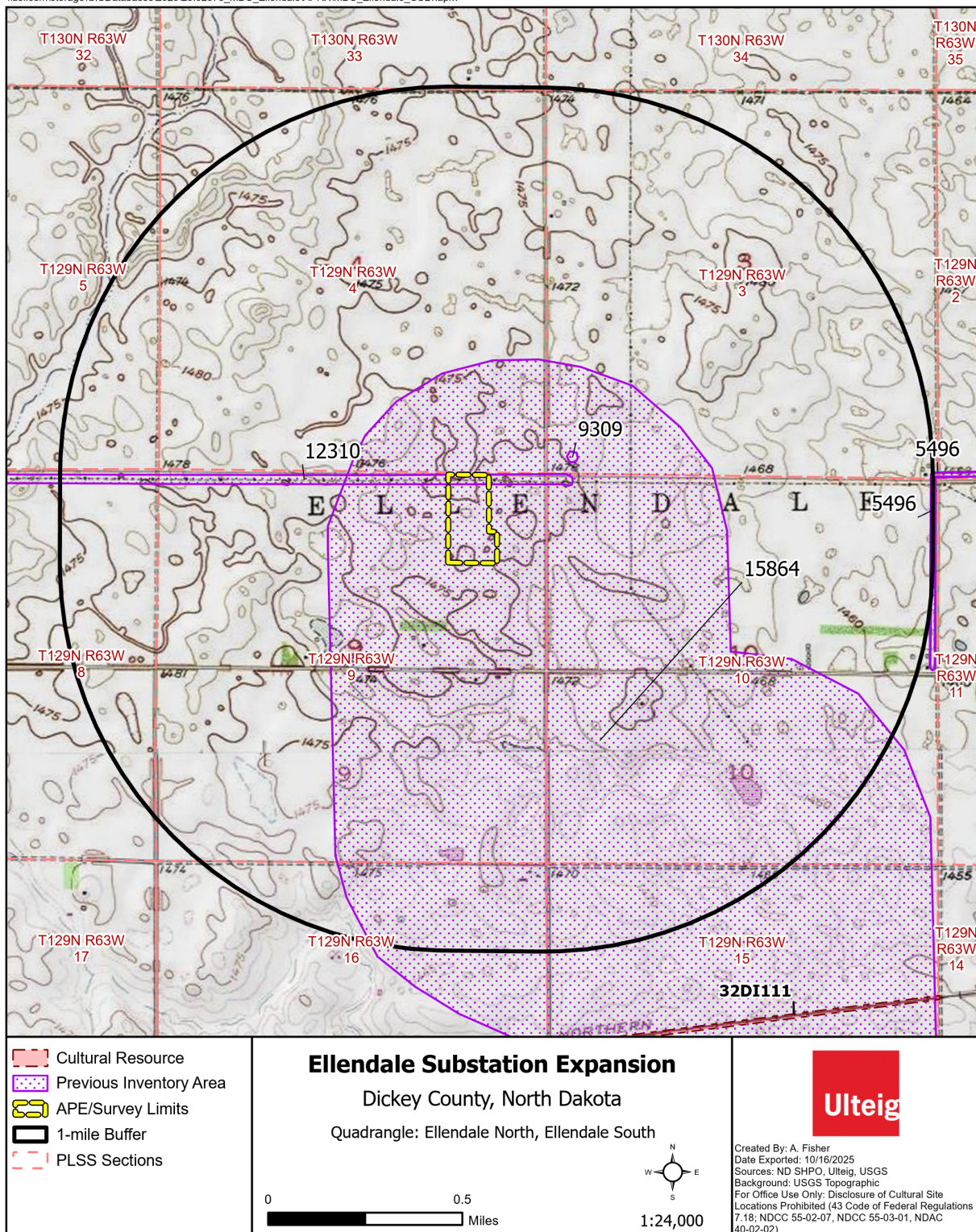
Required Attachments

USGS 7.5' Topographic Quadrangle Map(s) Showing: 1) Project Location; 2) Previously Recorded Sites; 3) Previously Conducted Surveys.

Project Map(s) Depicting: 1) APE; 2) Survey Limits

¹ Any project that includes a site, site lead, or isolated find within the APE is considered a positive find requires a full report.

Instructions: Submission of this report must include: 1) a paper copy, 2) a PDF version, and 3) the corresponding shapefiles. Submit to the Archaeology & Historic Preservation Division of the State Historical Society of North Dakota at 612 E Boulevard Ave, Bismarck, ND 58505.



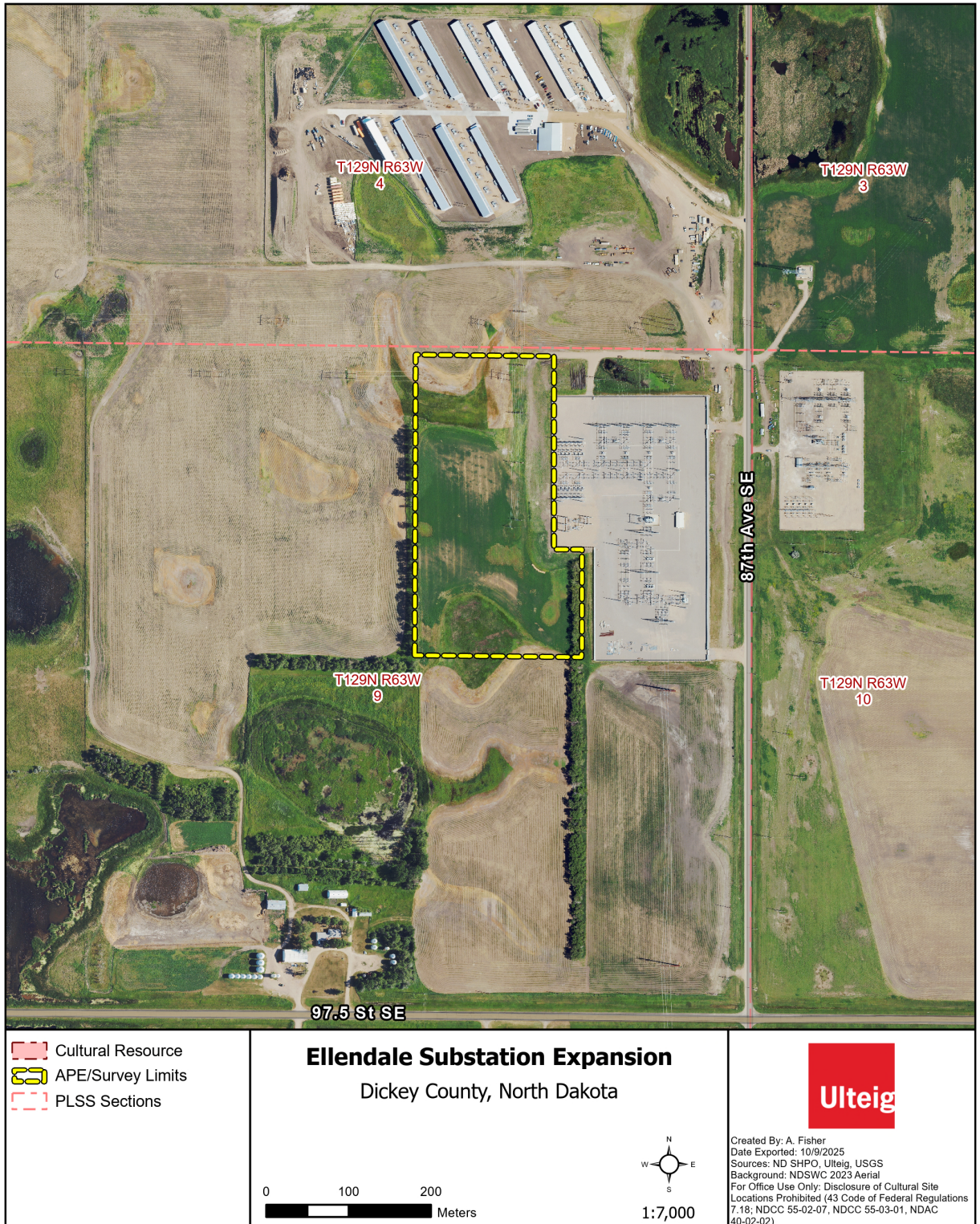


Figure 2: Aerial map of the proposed project



Figure 3: Overview of inventory area from southeast corner, view to the northwest.



Figure 4: Overview of inventory area from center looking towards current substation, view to the east.

Instructions: Submission of this report must include: 1) a paper copy, 2) a PDF version, and 3) the corresponding shapefiles. Submit to the Archaeology & Historic Preservation Division of the State Historical Society of North Dakota at 612 E Boulevard Ave, Bismarck, ND 58505.



Figure 5: Overview of inventory area, wetland on northern edge, view to the west.



Figure 6: Overview of inventory area, wetland on southern edge, view to the east.

Instructions: Submission of this report must include: 1) a paper copy, 2) a PDF version, and 3) the corresponding shapefiles. Submit to the Archaeology & Historic Preservation Division of the State Historical Society of North Dakota at 612 E Boulevard Ave, Bismarck, ND 58505.

Appendix F – Aquatic Resources Delineation Report

AQUATIC RESOURCES DELINEATION REPORT

Ulteig

We listen. We solve.®

Montana-Dakota Utilities Co.

Ellendale Substation

Prepared: October 2025

Ulteig Project Number: 25.02673

Prepared for:

Montana-Dakota Utilities Co.

400 N. 4th Street

Bismarck, North Dakota 58501

Prepared by:

Ulteig Engineers, Inc.

3350 38th Ave S

Fargo, North Dakota 58104-7079



EXECUTIVE SUMMARY

Montana-Dakota Utilities Co. (MDU) is proposing the expansion of a substation located along 87th Avenue SE in Dickey County, North Dakota. Uteig conducted a field aquatic resources delineation for the proposed substation expansion on September 12, 2025. The study area is located west of the existing substation, approximately 1.5 miles west of the City of Ellendale, and contains approximately 16.28 acres. Please refer to **Appendix A** for a project location map.

A Level 2 wetland delineation was conducted in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0). Wetland boundaries within the study area were determined by completing United States Army Corps of Engineers (USACE) Wetland Determination Data Forms for paired test hole points and observed soils, vegetation, and hydrology in the area.

Four wetlands were identified within the study area. The delineated features Cowardin classifications were identified as:

- 2 palustrine wetlands with emergent vegetation that are temporarily flooded (PEMA)
- 2 palustrine wetlands with emergent vegetation that are seasonally flooded (PEMC)

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Appendix D Antecedent Precipitation Tool Output

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ACRONYMS AND ABBREVIATIONS

FACU	Facultative Upland Plants
FACW.....	Facultative Wetland Plants
NAIP	National Agricultural Imagery Program
NHD	National Hydrography Dataset
NRCS.....	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OBL	Obligate Wetland Plants
OHWM	Ordinary High Water Mark
OW	Other Waters
PEMA.....	Palustrine, Emergent, Temporarily Flooded
PEMC.....	Palustrine, Emergent, Seasonally Flooded
USACE.....	US Army Corps of Engineers
USDA.....	US Department of Agriculture
USFWS.....	US Fish and Wildlife Service
USGS	US Geological Survey

INTRODUCTION

Montana-Dakota Utilities Co. (MDU) is proposing the expansion of a substation located along 87th Avenue SE in Dickey County, North Dakota. Ulteig conducted a field aquatic resources delineation for the proposed substation expansion on September 12, 2025. The study area is located west of the existing substation, approximately 1.5 miles west of the City of Ellendale, and contains approximately 16.28 acres. Please refer to **Appendix A** for a project location map.

The purpose of this report is to identify and describe aquatic resources in the project area. This report facilitates efforts to avoid or minimize impacts to aquatic resources during the design process as well as document aquatic resource boundary determinations for review by regulatory authorities. The aquatic resources delineation was prepared in accordance with:

- Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987).
- Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0) (Environmental Laboratory, 2010).
- Field Indicators of Hydric Soils in the United States (Version 8.2) (US Department of Agriculture, Natural Resources Conservation Service, 2018); and
- Regulatory Guidance Letter No. 05-05: Ordinary High-Water Mark (OHWM) Identification (US Army Corps of Engineers, 2005).
- National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams Identification (US Army Corps of Engineers, 2022).

The project proponent contact information is included below:

- Andy McDonald
MDU – Environmental Compliance Manager
400 N 4th Street
Bismarck, ND 58501
(701) 222-7941
Andy.McDonald@mdu.com

For directions to the project site, refer to **Appendix E: Driving Directions to the Site**.

METHODS

The US Army Corps of Engineers (USACE) routine, Level 2 – Onsite Inspection Necessary approach with onsite inspection was utilized, including the standard multi-parameter approach (i.e., vegetation, hydrology, and soils) (Environmental Laboratory, 1987). The field aquatic resources delineation was conducted on September 12, 2025, by Jeff Moss of Ulteig.

Antecedent precipitation conditions were evaluated for the study area using the USACE Antecedent Precipitation Tool (Gutensen and Deters, 2025). The region was experiencing wetter than normal conditions at the time of the field delineation. Please refer to **Appendix D: Antecedent Precipitation Tool Output**.

Field and report maps were developed using National Agricultural Imagery Program (NAIP) aerial photography in combination with data from the US Fish and Wildlife Services (USFWS) National Wetlands Inventory (NWI) (USFWS, 2025), US Geological Survey (USGS) National Hydrography

Dataset (NHD) (USGS, 2025), US Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) Soil Survey (Soil Survey Staff, 2025), and USGS Topographic Maps (The National Map, 2020).

Sampling locations were determined using: (1) data from field maps, (2) visual identification of sites that supported a hydrophytic plant community, and (3) presence of wetland hydrology and hydric soil characteristics. A minimum of two sample points (paired upland and wetland) were recorded for each wetland. Soil pits were excavated to depths sufficient to either identify hydric soil indicators or to rule out thick dark surface (i.e., hydric soil indicator A12).

Data from each sample point was recorded on USACE Wetland Determination Data Forms. Please refer to **Appendix C: Wetland Determination Data Forms**. Aquatic resource boundaries and associated geospatial data were recorded using Esri Field Maps with a Trimble DA2 receiver.

Delineated areas meeting wetland criteria were identified as wetlands. Other Waters of the United States (OW), such as tributaries, where indicators of an Ordinary High Water Mark (OHWM) are observed, were not identified during the delineation. Each aquatic resource was assigned a sequential number. Sampling points were numbered in the order data was collected in the field, with odd numbers denoting sampling points that met wetland criteria and even numbers denoting sampling points that did not meet wetland criteria.

RESULTS

Four wetlands were delineated within the study area, totaling 5.888 acres. For a summary of the delineated wetlands, please refer to **Table 1: Wetlands**. For maps of the delineated resources, please refer to **Appendix A: Maps**. For photos, please refer to **Appendix B: Photo Log**. For detailed information collected at each sampling point, please refer to **Appendix C: Wetland Determination Data Forms**.

Table 1: Wetlands

Wetland Number	Sampling Point	Location	Cowardin Classification	Type	Feature	Area Acres
1	1	S9 T129N R63W	PEMC	Basin	Natural	2.850
2	3	S9 T129N R63W	PEMA	Basin	Natural	0.098
3	9	S9 T129N R63W	PEMA	Basin	Natural	0.276
4	5	S9 T129N R63W	PEMC	Basin	Natural	2.664
	7					
TOTAL						5.888

Wetland 1

Wetland 1 is a natural basin wetland classified as a palustrine feature with emergent vegetation that is seasonally flooded (PEMC). Wetland hydrology is associated with precipitation and runoff from uplands; subsurface flow is unknown. Dominant vegetation observed at the sample point consisted of foxtail barley (*Hordeum jubatum*, FACW). Hydric soil indicators observed include depleted matrix (F3) and redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9), geomorphic position (D2), and FAC-neutral test (D5). No surface water, water table, or saturation were observed at the sample point location.

Wetland 2

Wetland 2 is a natural basin wetland classified as a palustrine feature with emergent vegetation that is temporarily flooded (PEMA). Wetland hydrology is associated with precipitation and runoff from uplands; subsurface flow is unknown. Dominant vegetation observed at the sample point included fowl bluegrass (*Poa palustris*, FACW), reed canary grass (*Phalaris arundinacea*, FACW), and bottlebrush sedge (*Carex hystericina*, OBL). The hydric soil indicator observed was redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9), geomorphic position (D2), and FAC-neutral test (D5). No surface water, water table, or saturation were observed at the sample point location.

Wetland 3

Wetland 3 is a natural basin wetland classified as a palustrine feature with emergent vegetation that is temporarily flooded (PEMA). Wetland hydrology is associated with precipitation and runoff from uplands; subsurface flow is unknown. Dominant vegetation observed at the sample point included foxtail barley (*Hordeum jubatum*, FACW), reed canary grass (*Phalaris arundinacea*, FACW), and Canada thistle (*Cirsium arvense*, FACU). While a dominant facultative upland plant was observed at the sample point, the sample point met the dominance test hydrophytic vegetation indicator. Hydric soil indicators observed include depleted matrix (F3) and redox dark surface (F6). Hydrology indicators observed include saturation visible on aerial imagery (C9), geomorphic position (D2), and FAC-neutral test (D5). No surface water, water table, or saturation were observed at the sample point location.

Wetland 4

Wetland 4 is a natural basin wetland classified as a palustrine feature with emergent vegetation that is seasonally flooded (PEMC). Wetland hydrology is associated with precipitation and runoff from uplands; subsurface flow is unknown.

Dominant vegetation observed at sample point 5 included fowl bluegrass (*Poa palustris*, FACW) and common spike rush (*Eleocharis palustris*, OBL). Hydric soil indicator observed was depleted matrix (F3). Hydrology indicators observed include saturation (A3), saturation visible on aerial imagery (C9), geomorphic position (D2), and FAC-neutral test (D5). No surface water or water table were observed at the sample point location, however, saturation was observed to the surface.

Dominant vegetation observed at sample point 7 consisted of foxtail barley (*Hordeum jubatum*, FACW). Hydric soil indicators observed include depleted matrix (F3) and redox dark surface (F6). Hydrology indicators observed include saturation (A3), geomorphic position (D2), and FAC-neutral test (D5). No surface water or water table were observed at the sample point location; however, saturation was observed to the surface.

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Jeff Moss	
Education	North Dakota State University – BS Natural Resources Management
Certifications	Minnesota Wetland Professional Certification Program – Certified Minnesota Wetland Professional (CMWP #1415)
Training	Wetland Delineator Certification Program – 5-Day Basic Wetland Delineation Course
Professional Membership	Minnesota Wetland Professional Association, National Association of Wetland Managers

REFERENCES

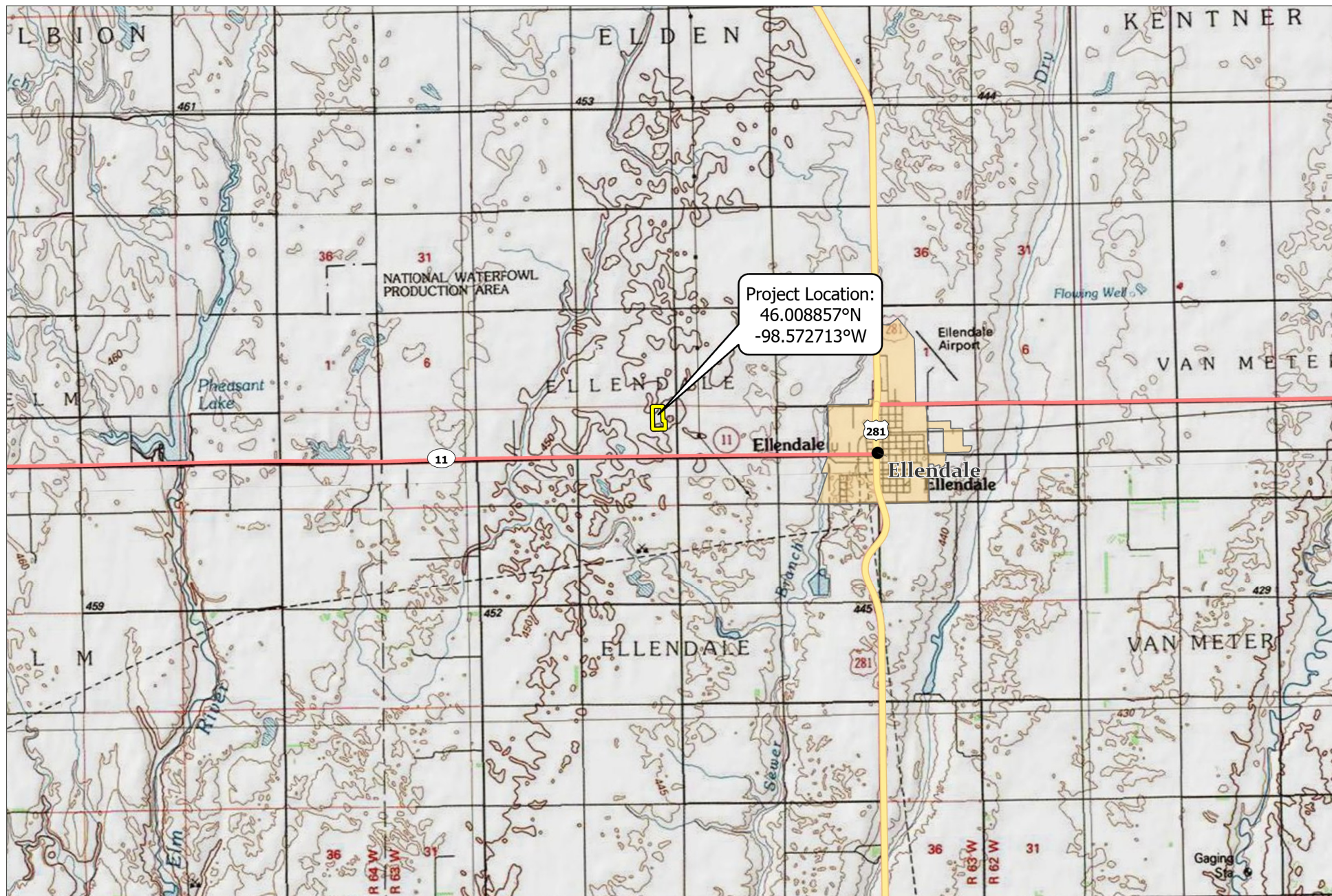
- Cowardin, LM, V Carter, FC Golet, and ET LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the US as modified for National Wetland Inventory Mapping Convention. <http://www.fws.gov/wetlands/Documents/Wetlands-and-Deepwater-Habitats-Classification-chart.pdf>
- Gutenson, JL and JC Deters. 2025. Antecedent Precipitation Tool (APT) Version 3.0: Available online at: <https://www.erdc.usace.army.mil/Media/Publication-Notices/Article/4249898/antecedent-precipitation-tool-apt-version-30-technical-and-user-guide/>
- Soil Survey Staff, US Department of Agriculture, Natural Resources Conservation Service. 2025. Web Soil Survey. <http://websoilsurvey.nrcs.usda.gov/>
- US Army Corps of Engineers. 1987. Corps of Engineers Wetlands Delineation Manual. US Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS. <https://usace.contentdm.oclc.org/digital/collection/p266001coll1/id/4532/>
- US Army Corps of Engineers. 2005. Regulatory Guidance Letter No. 05-05: Ordinary High Water Mark Identification. <https://usace.contentdm.oclc.org/utis/getfile/collection/p16021coll9/id/1253>
- US Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0). Available online at: https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/
- US Army Corps of Engineers. 2022. National Wetland Plant List, version 3.6. Available online at: <https://nwpl.sec.usace.army.mil/species/>
- US Army Corps of Engineers. 2022. National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams (Interim Version). <https://erdc-library.erdc.dren.mil/jspui/handle/11681/46102>
- US Department of Agriculture - Natural Resources Conservation Service. 2018. Field Indicators of Hydric Soils in the United States. (Version 8.2). https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_053171.pdf

US Fish and Wildlife Service.2025. National Wetlands Inventory. <https://www.fws.gov/program/national-wetlands-inventory>

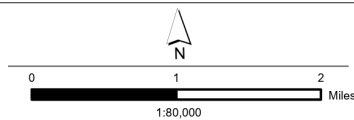
US Geological Survey. 2025. National Hydrography Dataset. <https://www.usgs.gov/national-hydrography/national-hydrography-dataset>

US Geological Survey. USGS Topographic Map. Available online at:
<http://viewer.nationalmap.gov/viewer/>

APPENDIX A | Maps



PROJECT LOCATION
Dickey County, North Dakota



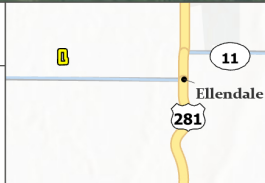
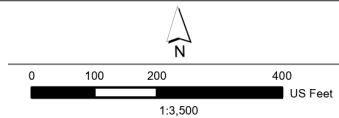
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- US Highway
- Project Boundary
- City Boundary

MAP CREATED BY: A. Fisher
DATE: 9/30/2025 4:45 PM
PROJECT: MDU Ellendale Substation Expansion
DEINATOR: J. Moss
FIELD DATE: 09/12/2025
BACKGROUND: USGS Topographic Map
DATA SOURCES: ND GIS, Ulteig





AQUATIC RESOURCES
Dickey County, North Dakota

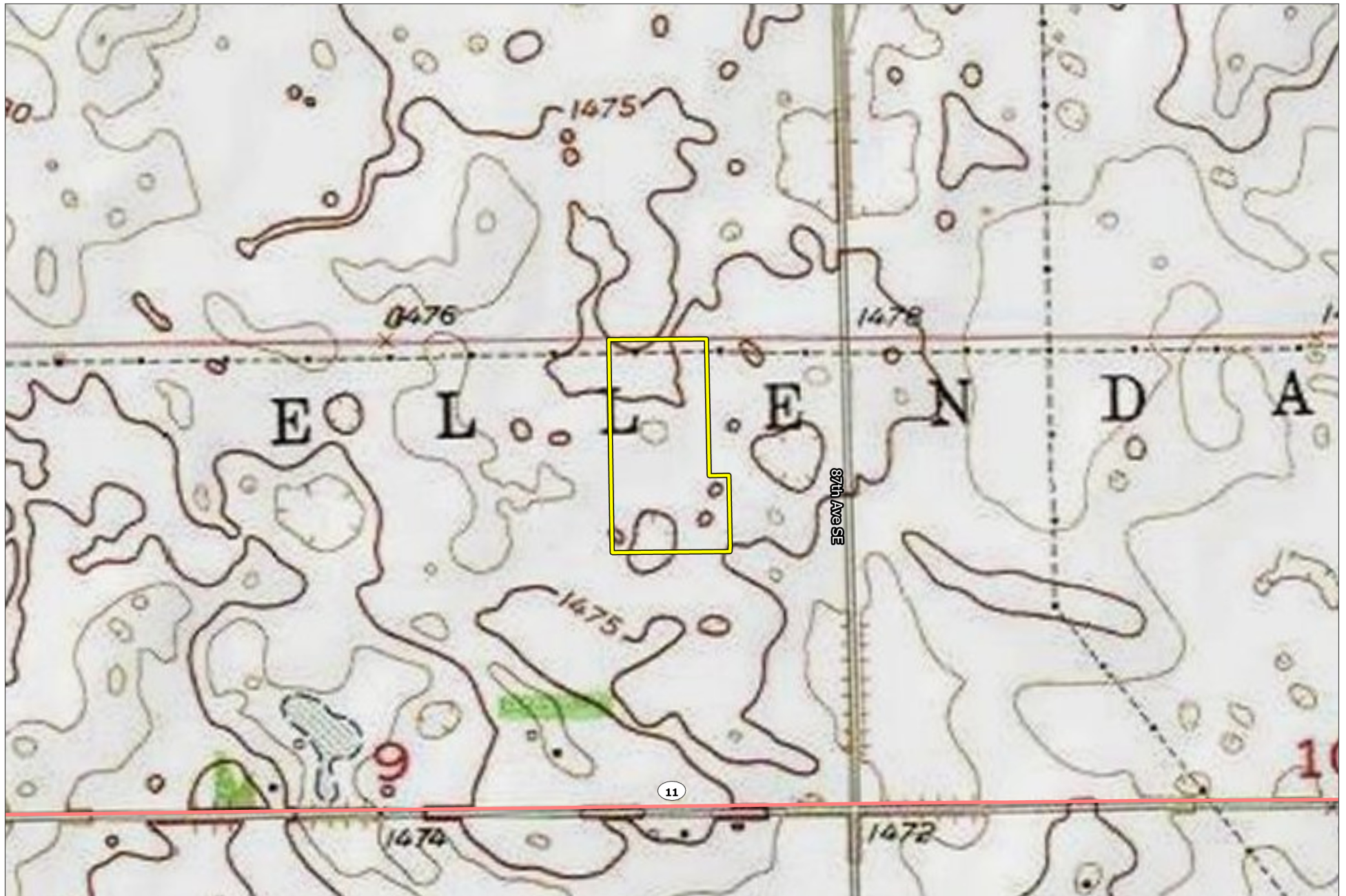


- Upland
- Wetland
- ↑ Photo Point
- Project Boundary

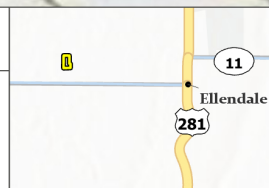
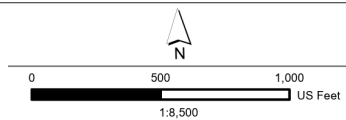
- PLSS Sections
- County Road
- Aquatic Resources**
- Wetland

MAP CREATED BY: A. Fisher
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DEINATOR: J. Moss
FIELD DATE: 09/12/2025
BACKGROUND: NAIP 2024
DATA SOURCES: ND GIS, Ulteig





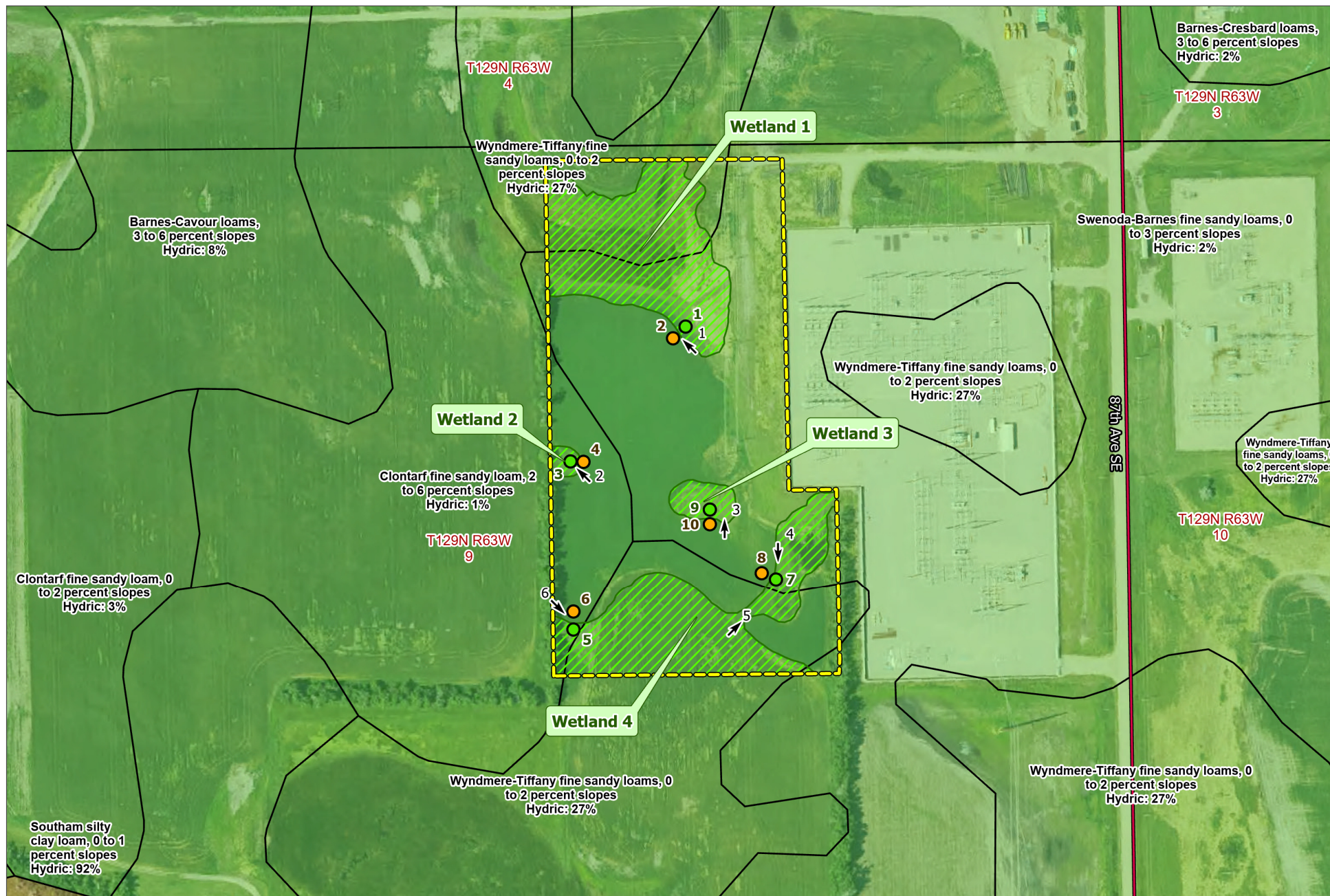
USGS TOPOGRAPHIC
Dickey County, North Dakota



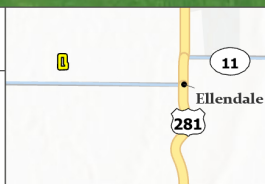
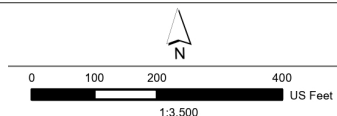
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- State Highway
- US Highway
- City Boundary

MAP CREATED BY: A. Fisher
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PROJECT: MDU Ellendale Substation
Expansion
DESIGNATOR: J. Moss
FIELD DATE: 09/12/2025
BACKGROUND: USGS Topographic Map
DATA SOURCES: ND GIS, Ulteig





HYDRIC RATING BY MAP UNIT **Dickey County, North Dakota**



- Upland
- Wetland
- Photo Point
- Project Boundary

- PLSS Sections
- County Road
- Aquatic Resources**
- Wetland

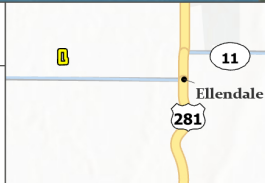
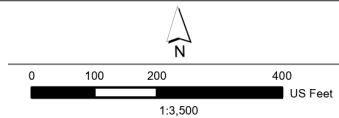
- Soil Hydric Rating**
- Predominantly nonhydric (1 to 32%)
- Predominantly Hydric (66 to 99%)

MAP CREATED BY: A. Fisher
 DATE: 9/30/2025 4:31 PM
 PROJECT: MDU Ellendale Substation Expansion
 DENSATOR: J. Moss
 FIELD DATE: 09/12/2025
 BACKGROUND: NAIP 2024
 DATA SOURCES: ND GIS, Ulteig, USDA





NWI WETLANDS
Dickey County, North Dakota



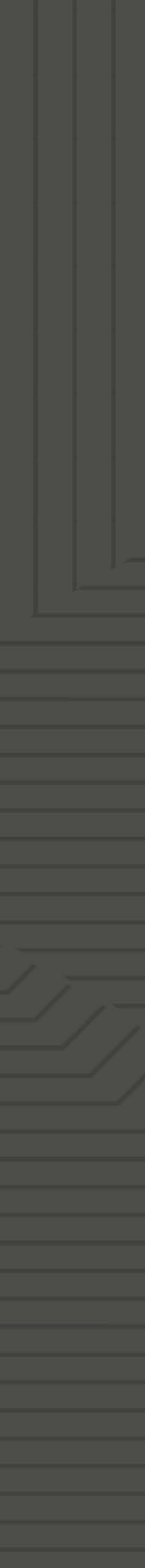
- Upland
- Wetland
- ↑ Photo Point
- Project Boundary

- PLSS Sections
- County Road
- Aquatic Resources**
- Wetland

- Wetland Type**
- Freshwater Emergent Wetland
 - Other

MAP CREATED BY: A. Fisher
DATE: 9/30/2025 4:32 PM
PROJECT: MDU Ellendale Substation Expansion
DEINATOR: J. Moss
FIELD DATE: 09/12/2025
BACKGROUND: NAIP 2024
DATA SOURCES: ND GIS, Ulteig, USFWS





APPENDIX B | Photo Log

Photo Point 1

S9 T129N R63W

September 12, 2025

View Northwest

Wetland 1



Photo Point 2

S9 T129N R63W

September 12, 2025

View Northwest

Wetland 2



Photo Point 3

S9 T129N R63W

September 12, 2025

View North

Wetland 3



Photo Point 4

S9 T129N R63W

September 12, 2025

View South

Wetland 4



Photo Point 5

S9 T129N R63W

September 12, 2025

View Northeast

Wetland 4



Photo Point 6

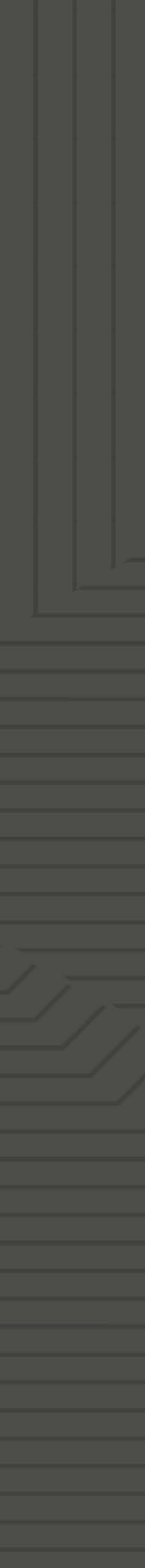
S9 T129N R63W

September 12, 2025

View Southeast

Wetland 4





APPENDIX C

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: MDU Ellendale Substation Expansion City/County: Dickey County Sampling Date: 9/12/25
 Applicant/Owner: Montana-Dakota Utilities Company (MDU) State: ND Sampling Point: 1
 Investigator(s): Jeff Moss Section, Township, Range: Sec. 9, T129N, R63W
 Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR): F Lat: 46.009223 Long: -98.572622 Datum: NAD83
 Soil Map Unit Name: Swenoda-Barnes fine sandy loams, 0 to 3 percent slopes NWI classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒	No ☐	Is the Sampled Area within a Wetland?	Yes ☒	No ☐
Hydric Soil Present?	Yes ☒	No ☐			
Wetland Hydrology Present?	Yes ☒	No ☐			
Remarks: Associated with Wetland 1. Based on the USACE and ERDC Antecedent Precipitation Tool (Version 3.0), the area was experiencing wetter than normal precipitation conditions over the prior period (3 months).					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>) 0 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = 0 FACW species _____ x 2 = 0 FAC species _____ x 3 = 0 FACU species _____ x 4 = 0 UPL species _____ x 5 = 0 Column Totals: 0 (A) 0 (B) Prevalence Index = B/A = NaN
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Herb Stratum (Plot size: <u>5 ft radius</u>) 0 = Total Cover				Hydrophytic Vegetation Indicators: ☒ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Hordeum jubatum</u>	85	Y	FACW	
2. <u>Rumex crispus</u>	10	N	FAC	
3. <u>Sonchus arvensis</u>	5	N	FAC	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: <u>30 ft radius</u>) 0 = Total Cover				Hydrophytic Vegetation Present? Yes ☒ No ☐
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
% Bare Ground in Herb Stratum <u>0</u> 0 = Total Cover				
Remarks:				

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 2/1	100					CL	Salts
5-7	10YR 2/1	70	10YR 5/4	5	C	M	CL	
	10YR 5/1	25						
7-16	10YR 5/1	100					CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) (LRR F) ☐ 1 cm Muck (A9) (LRR F, G, H) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) ☐ 5 cm Mucky Peat or Peat (S3) (LRR F)	☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Loamy Mucky Mineral (F1) ☐ Loamy Gleyed Matrix (F2) ☒ Depleted Matrix (F3) ☒ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)
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Indicators for Problematic Hydric Soils³: ☐ 1 cm Muck (A9) (LRR I, J) ☐ Coast Prairie Redox (A16) (LRR F, G, H) ☐ Dark Surface (S7) (LRR G) ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) ☐ Reduced Vertic (F18) ☐ Red Parent Material (TF2) ☐ Very Shallow Dark Surface (TF12) ☐ Other (Explain in Remarks)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
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Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No ☐
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Oxidized Rhizospheres on Living Roots (C3) (where not tilled) ☐ Presence of Reduced Iron (C4) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled) ☐ Crayfish Burrows (C8) ☒ Saturation Visible on Aerial Imagery (C9) ☒ Geomorphic Position (D2) ☒ FAC-Neutral Test (D5) ☐ Frost-Heave Hummocks (D7) (LRR F)			
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)			Wetland Hydrology Present? Yes ☒ No ☐		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: MDU Ellendale Substation Expansion City/County: Dickey County Sampling Date: 9/12/25

Applicant/Owner: Montana-Dakota Utilities Company (MDU) State: ND Sampling Point: 2

Investigator(s): Jeff Moss Section, Township, Range: Sec. 9, T129N, R63W

Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 3

Subregion (LRR): F Lat: 46.009150 Long: -98.572739 Datum: NAD83

Soil Map Unit Name: Swenoda-Barnes fine sandy loams, 0 to 3 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	Is the Sampled Area within a Wetland?	Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒		
Wetland Hydrology Present?	Yes ☐ No ☒		
Remarks: Associated with Wetland 1. Based on the USACE and ERDC Antecedent Precipitation Tool (Version 3.0), the area was experiencing wetter than normal precipitation conditions over the prior period (3 months).			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>NaN</u>
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: ☐ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Medicago sativa</u>	<u>60</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Poa pratensis</u>	<u>15</u>	<u>N</u>	<u>FACU</u>	
3. <u>Setaria pumila</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
<u>85</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				Hydrophytic Vegetation Present? Yes ☐ No ☒
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>15</u>				
Remarks:				

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10YR 3/2	100					CL	
13-20	10YR 4/3	100					CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) (LRR F) ☐ 1 cm Muck (A9) (LRR F, G, H) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) ☐ 5 cm Mucky Peat or Peat (S3) (LRR F)	Indicators for Problematic Hydric Soils³: ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Loamy Mucky Mineral (F1) ☐ Loamy Gleyed Matrix (F2) ☐ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ High Plains Depressions (F16) (MLRA 72 & 73 of LRR H) ☐ 1 cm Muck (A9) (LRR I, J) ☐ Coast Prairie Redox (A16) (LRR F, G, H) ☐ Dark Surface (S7) (LRR G) ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) ☐ Reduced Vertic (F18) ☐ Red Parent Material (TF2) ☐ Very Shallow Dark Surface (TF12) ☐ Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☐ No ☒
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Oxidized Rhizospheres on Living Roots (C3) (where not tilled) ☐ Presence of Reduced Iron (C4) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ FAC-Neutral Test (D5) ☐ Frost-Heave Hummocks (D7) (LRR F)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: MDU Ellendale Substation Expansion City/County: Dickey County Sampling Date: 9/12/25
 Applicant/Owner: Montana-Dakota Utilities Company (MDU) State: ND Sampling Point: 3
 Investigator(s): Jeff Moss Section, Township, Range: Sec. 9, T129N, R63W
 Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR): F Lat: 46.008381 Long: -98.573704 Datum: NAD83
 Soil Map Unit Name: Clontarf fine sandy loam, 2 to 6 percent slopes NWI classification: PEMA
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒	No ☐	Is the Sampled Area within a Wetland?	Yes ☒	No ☐
Hydric Soil Present?	Yes ☒	No ☐			
Wetland Hydrology Present?	Yes ☒	No ☐			
Remarks: Associated with Wetland 2. Based on the USACE and ERDC Antecedent Precipitation Tool (Version 3.0), the area was experiencing wetter than normal precipitation conditions over the prior period (3 months).					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>) 0 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = 0 FACW species _____ x 2 = 0 FAC species _____ x 3 = 0 FACU species _____ x 4 = 0 UPL species _____ x 5 = 0 Column Totals: 0 (A) 0 (B) Prevalence Index = B/A = NaN
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Herb Stratum (Plot size: <u>5 ft radius</u>) 0 = Total Cover				Hydrophytic Vegetation Indicators: ☒ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Poa palustris</u>	35	Y	FACW	
2. <u>Phalaris arundinacea</u>	25	Y	FACW	
3. <u>Carex hystericina</u>	20	Y	OBL	
4. <u>Taraxacum officinale</u>	15	N	FACU	
5. <u>Rumex crispus</u>	5	N	FAC	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: <u>30 ft radius</u>) 0 = Total Cover				Hydrophytic Vegetation Present? Yes ☒ No ☐
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
% Bare Ground in Herb Stratum <u>0</u> 0 = Total Cover				
Remarks:				

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	95	5YR 4/4	5	C	M	CL	
3-20	10YR 2/1	70	5YR 4/4	30	C	M	CL	
20-25	10YR 4/3	85	10YR 5/6	15	C	M	CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) (LRR F) ☐ 1 cm Muck (A9) (LRR F, G, H) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) ☐ 5 cm Mucky Peat or Peat (S3) (LRR F)	☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Loamy Mucky Mineral (F1) ☐ Loamy Gleyed Matrix (F2) ☐ Depleted Matrix (F3) ☒ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)
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Indicators for Problematic Hydric Soils³:
☐ 1 cm Muck (A9) (LRR I, J)
☐ Coast Prairie Redox (A16) (LRR F, G, H)
☐ Dark Surface (S7) (LRR G)
☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)
³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No ☐
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Oxidized Rhizospheres on Living Roots (C3) (where not tilled) ☐ Presence of Reduced Iron (C4) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled) ☐ Crayfish Burrows (C8) ☒ Saturation Visible on Aerial Imagery (C9) ☒ Geomorphic Position (D2) ☒ FAC-Neutral Test (D5) ☐ Frost-Heave Hummocks (D7) (LRR F)	

Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: MDU Ellendale Substation Expansion City/County: Dickey County Sampling Date: 9/12/25
Applicant/Owner: Montana-Dakota Utilities Company (MDU) State: ND Sampling Point: 4
Investigator(s): Jeff Moss Section, Township, Range: Sec. 9, T129N, R63W
Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 1
Subregion (LRR): F Lat: 46.008378 Long: -98.573587 Datum: NAD83
Soil Map Unit Name: Clontarf fine sandy loam, 2 to 6 percent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks: Associated with Wetland 2. Based on the USACE and ERDC Antecedent Precipitation Tool (Version 3.0), the area was experiencing wetter than normal precipitation conditions over the prior period (3 months).					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
_____ = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
Herb Stratum (Plot size: <u>5 ft radius</u>)			
1. <u>Medicago sativa</u>	<u>65</u>	<u>Y</u>	<u>UPL</u>
2. <u>Setaria pumila</u>	<u>15</u>	<u>N</u>	<u>FACU</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
_____ = Total Cover			
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
_____ = Total Cover			
% Bare Ground in Herb Stratum <u>20</u>			
Remarks:			

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): _____ (A)
Total Number of Dominant Species Across All Strata: _____ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:
Total % Cover of: _____ Multiply by:
OBL species _____ x 1 = 0
FACW species _____ x 2 = 0
FAC species _____ x 3 = 0
FACU species _____ x 4 = 0
UPL species _____ x 5 = 0
Column Totals: 0 (A) 0 (B)
Prevalence Index = B/A = NaN

Hydrophytic Vegetation Indicators:
☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0¹
☐ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☐ No ☒

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	10YR 2/1	100					CL	
20-26	10YR 4/3	100					CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) (LRR F) ☐ 1 cm Muck (A9) (LRR F, G, H) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) ☐ 5 cm Mucky Peat or Peat (S3) (LRR F)	Indicators for Problematic Hydric Soils³: ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Loamy Mucky Mineral (F1) ☐ Loamy Gleyed Matrix (F2) ☐ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ High Plains Depressions (F16) (MLRA 72 & 73 of LRR H) ☐ 1 cm Muck (A9) (LRR I, J) ☐ Coast Prairie Redox (A16) (LRR F, G, H) ☐ Dark Surface (S7) (LRR G) ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) ☐ Reduced Vertic (F18) ☐ Red Parent Material (TF2) ☐ Very Shallow Dark Surface (TF12) ☐ Other (Explain in Remarks)
--	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☐ No ☒
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Oxidized Rhizospheres on Living Roots (C3) (where not tilled) ☐ Presence of Reduced Iron (C4) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ FAC-Neutral Test (D5) ☐ Frost-Heave Hummocks (D7) (LRR F)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: MDU Ellendale Substation Expansion City/County: Dickey County Sampling Date: 9/12/25
 Applicant/Owner: Montana-Dakota Utilities Company (MDU) State: ND Sampling Point: 5
 Investigator(s): Jeff Moss Section, Township, Range: Sec. 9, T129N, R63W
 Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR): F Lat: 46.007308 Long: -98.573716 Datum: NAD83
 Soil Map Unit Name: Clontarf fine sandy loam, 2 to 6 percent slopes NWI classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks: Associated with Wetland 4. Based on the USACE and ERDC Antecedent Precipitation Tool (Version 3.0), the area was experiencing wetter than normal precipitation conditions over the prior period (3 months).			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>) 0 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = 0 FACW species _____ x 2 = 0 FAC species _____ x 3 = 0 FACU species _____ x 4 = 0 UPL species _____ x 5 = 0 Column Totals: 0 (A) 0 (B) Prevalence Index = B/A = NaN
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Herb Stratum (Plot size: <u>5 ft radius</u>) 0 = Total Cover				Hydrophytic Vegetation Indicators: ☒ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Poa palustris</u>	50	Y	FACW	
2. <u>Eleocharis palustris</u>	25	Y	OBL	
3. <u>Phalaris arundinacea</u>	15	N	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: <u>30 ft radius</u>) 0 = Total Cover				Hydrophytic Vegetation Present? Yes ☒ No ☐
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
% Bare Ground in Herb Stratum <u>10</u>				
Remarks:				

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 2/1	100					CL	
7-15	10YR 5/1	70	7.5YR 4/4	30	C	M	CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Sandy Gleyed Matrix (S4)	☐ 1 cm Muck (A9) (LRR I, J)
☐ Histic Epipedon (A2)	☐ Sandy Redox (S5)	☐ Coast Prairie Redox (A16) (LRR F, G, H)
☐ Black Histic (A3)	☐ Stripped Matrix (S6)	☐ Dark Surface (S7) (LRR G)
☐ Hydrogen Sulfide (A4)	☐ Loamy Mucky Mineral (F1)	☐ High Plains Depressions (F16)
☐ Stratified Layers (A5) (LRR F)	☐ Loamy Gleyed Matrix (F2)	(LRR H outside of MLRA 72 & 73)
☐ 1 cm Muck (A9) (LRR F, G, H)	☒ Depleted Matrix (F3)	☐ Reduced Vertic (F18)
☐ Depleted Below Dark Surface (A11)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (TF2)
☐ Thick Dark Surface (A12)	☐ Depleted Dark Surface (F7)	☐ Very Shallow Dark Surface (TF12)
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	☐ Other (Explain in Remarks)
☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	☐ High Plains Depressions (F16)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
☐ 5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)	

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No ☐
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required) ☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled) ☐ Crayfish Burrows (C8) ☒ Saturation Visible on Aerial Imagery (C9) ☒ Geomorphic Position (D2) ☒ FAC-Neutral Test (D5) ☐ Frost-Heave Hummocks (D7) (LRR F)
☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Oxidized Rhizospheres on Living Roots (C3) (where not tilled) ☐ Presence of Reduced Iron (C4) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☒ No ☐ Depth (inches): 0 (includes capillary fringe)	Wetland Hydrology Present? Yes ☒ No ☐
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: MDU Ellendale Substation Expansion City/County: Dickey County Sampling Date: 9/12/25

Applicant/Owner: Montana-Dakota Utilities Company (MDU) State: ND Sampling Point: 6

Investigator(s): Jeff Moss Section, Township, Range: Sec. 9, T129N, R63W

Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 3

Subregion (LRR): F Lat: 46.007423 Long: -98.573710 Datum: NAD83

Soil Map Unit Name: Clontarf fine sandy loam, 2 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			

Remarks:

Associated with Wetland 4. Based on the USACE and ERDC Antecedent Precipitation Tool (Version 3.0), the area was experiencing wetter than normal precipitation conditions over the prior period (3 months).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>NaN</u>
_____ = Total Cover				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
Herb Stratum (Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: ☐ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
_____ = Total Cover				
1. <u>Medicago sativa</u>	<u>60</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Setaria pumila</u>	<u>15</u>	<u>N</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				
_____ = Total Cover				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☐ No ☒
2. _____	_____	_____	_____	
% Bare Ground in Herb Stratum <u>25</u>				_____ = Total Cover

Remarks:

SOIL

Sampling Point: 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 2/1	100					CL	
16-22	10YR 4/3	100					CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) (LRR F) ☐ 1 cm Muck (A9) (LRR F, G, H) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) ☐ 5 cm Mucky Peat or Peat (S3) (LRR F)	Indicators for Problematic Hydric Soils³: ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Loamy Mucky Mineral (F1) ☐ Loamy Gleyed Matrix (F2) ☐ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ High Plains Depressions (F16) (MLRA 72 & 73 of LRR H) ☐ 1 cm Muck (A9) (LRR I, J) ☐ Coast Prairie Redox (A16) (LRR F, G, H) ☐ Dark Surface (S7) (LRR G) ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) ☐ Reduced Vertic (F18) ☐ Red Parent Material (TF2) ☐ Very Shallow Dark Surface (TF12) ☐ Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☐ No ☒
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Oxidized Rhizospheres on Living Roots (C3) (where not tilled) ☐ Presence of Reduced Iron (C4) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ FAC-Neutral Test (D5) ☐ Frost-Heave Hummocks (D7) (LRR F)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: MDU Ellendale Substation Expansion City/County: Dickey County Sampling Date: 9/12/25
 Applicant/Owner: Montana-Dakota Utilities Company (MDU) State: ND Sampling Point: 7
 Investigator(s): Jeff Moss Section, Township, Range: Sec. 9, T129N, R63W
 Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): F Lat: 46.007598 Long: -98.571854 Datum: NAD83
 Soil Map Unit Name: Swenoda-Barnes fine sandy loams, 0 to 3 percent slopes NWI classification: PEMC
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒	No ☐	Is the Sampled Area within a Wetland?	Yes ☒	No ☐
Hydric Soil Present?	Yes ☒	No ☐			
Wetland Hydrology Present?	Yes ☒	No ☐			
Remarks: Associated with Wetland 4. Based on the USACE and ERDC Antecedent Precipitation Tool (Version 3.0), the area was experiencing wetter than normal precipitation conditions over the prior period (3 months).					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>) 0 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = 0 FACW species _____ x 2 = 0 FAC species _____ x 3 = 0 FACU species _____ x 4 = 0 UPL species _____ x 5 = 0 Column Totals: 0 (A) 0 (B) Prevalence Index = B/A = NaN
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Herb Stratum (Plot size: <u>5 ft radius</u>) 0 = Total Cover				Hydrophytic Vegetation Indicators: ☒ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Hordeum jubatum</u>	75	Y	FACW	
2. <u>Persicaria pensylvanica</u>	15	N	FACW	
3. <u>Phalaris arundinacea</u>	10	N	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: <u>30 ft radius</u>) 0 = Total Cover				Hydrophytic Vegetation Present? Yes ☒ No ☐
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
% Bare Ground in Herb Stratum <u>0</u>				
Remarks:				

SOIL

Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 2/1	95	7.5YR 4/4	5	C	M	CL	
5-12	10YR 5/1	80	7.5YR 4/4	20	C	M	CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) (LRR F) ☐ 1 cm Muck (A9) (LRR F, G, H) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) ☐ 5 cm Mucky Peat or Peat (S3) (LRR F)	Indicators for Problematic Hydric Soils³: ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Loamy Mucky Mineral (F1) ☐ Loamy Gleyed Matrix (F2) ☒ Depleted Matrix (F3) ☒ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)
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Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No ☐
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (minimum of two required)		
☐ Surface Water (A1) ☐ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Oxidized Rhizospheres on Living Roots (C3) (where not tilled) ☐ Presence of Reduced Iron (C4) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled) ☐ Crayfish Burrows (C8) ☒ Saturation Visible on Aerial Imagery (C9) ☒ Geomorphic Position (D2) ☒ FAC-Neutral Test (D5) ☐ Frost-Heave Hummocks (D7) (LRR F)			

Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☒ No ☐ Depth (inches): 0	Wetland Hydrology Present? Yes ☒ No ☐
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: MDU Ellendale Substation Expansion City/County: Dickey County Sampling Date: 9/12/25
 Applicant/Owner: Montana-Dakota Utilities Company (MDU) State: ND Sampling Point: 8
 Investigator(s): Jeff Moss Section, Township, Range: Sec. 9, T129N, R63W
 Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 4
 Subregion (LRR): F Lat: 46.007639 Long: -98.571981 Datum: NAD83
 Soil Map Unit Name: Swenoda-Barnes fine sandy loams, 0 to 3 percent slopes NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks: Associated with Wetland 4. Based on the USACE and ERDC Antecedent Precipitation Tool (Version 3.0), the area was experiencing wetter than normal precipitation conditions over the prior period (3 months).					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>) 0 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = 0 FACW species _____ x 2 = 0 FAC species _____ x 3 = 0 FACU species _____ x 4 = 0 UPL species _____ x 5 = 0 Column Totals: 0 (A) 0 (B) Prevalence Index = B/A = NaN
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Herb Stratum (Plot size: <u>5 ft radius</u>) 0 = Total Cover				Hydrophytic Vegetation Indicators: ☐ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes ☐ No ☒
1. <u>Medicago sativa</u>	65	Y	UPL	
2. <u>Setaria pumila</u>	10	N	FACU	
3. <u>Sonchus arvensis</u>	5	N	FAC	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: <u>30 ft radius</u>) 0 = Total Cover				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☐ No ☒
2. _____	_____	_____	_____	
% Bare Ground in Herb Stratum <u>20</u>				
Remarks:				

SOIL

Sampling Point: 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10YR 2/1	100					CL	
13-18	10YR 3/3	100					CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) (LRR F) ☐ 1 cm Muck (A9) (LRR F, G, H) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) ☐ 5 cm Mucky Peat or Peat (S3) (LRR F)	Indicators for Problematic Hydric Soils³: ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Loamy Mucky Mineral (F1) ☐ Loamy Gleyed Matrix (F2) ☐ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ High Plains Depressions (F16) (MLRA 72 & 73 of LRR H) ☐ 1 cm Muck (A9) (LRR I, J) ☐ Coast Prairie Redox (A16) (LRR F, G, H) ☐ Dark Surface (S7) (LRR G) ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) ☐ Reduced Vertic (F18) ☐ Red Parent Material (TF2) ☐ Very Shallow Dark Surface (TF12) ☐ Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☐ No ☒
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Oxidized Rhizospheres on Living Roots (C3) (where not tilled) ☐ Presence of Reduced Iron (C4) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ FAC-Neutral Test (D5) ☐ Frost-Heave Hummocks (D7) (LRR F)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: MDU Ellendale Substation Expansion City/County: Dickey County Sampling Date: 9/12/25

Applicant/Owner: Montana-Dakota Utilities Company (MDU) State: ND Sampling Point: 9

Investigator(s): Jeff Moss Section, Township, Range: Sec. 9, T129N, R63W

Landform (hillslope, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR): F Lat: 46.008055 Long: -98.572440 Datum: NAD83

Soil Map Unit Name: Swenoda-Barnes fine sandy loams, 0 to 3 percent slopes NWI classification: PEMA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒	No ☐	Is the Sampled Area within a Wetland?	Yes ☒	No ☐
Hydric Soil Present?	Yes ☒	No ☐			
Wetland Hydrology Present?	Yes ☒	No ☐			

Remarks:

Associated with Wetland 3. Based on the USACE and ERDC Antecedent Precipitation Tool (Version 3.0), the area was experiencing wetter than normal precipitation conditions over the prior period (3 months).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>NaN</u>
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: ☐ 1 - Rapid Test for Hydrophytic Vegetation ☒ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Hordeum jubatum</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Phalaris arundinacea</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Cirsium arvense</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
4. <u>Sonchus arvensis</u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
5. <u>Rumex crispus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
<u>95</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				Hydrophytic Vegetation Present? Yes ☒ No ☐
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>5</u>				
Remarks:				

SOIL

Sampling Point: 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/1	100					CL	
2-9	10YR 2/1	95	7.5YR 4/4	5	C	M	CL	
9-18	10YR 4/1	85	7.5YR 4/4	15	C	M	CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) (LRR F) ☐ 1 cm Muck (A9) (LRR F, G, H) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) ☐ 5 cm Mucky Peat or Peat (S3) (LRR F)	Indicators for Problematic Hydric Soils³: ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Loamy Mucky Mineral (F1) ☐ Loamy Gleyed Matrix (F2) ☒ Depleted Matrix (F3) ☒ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ High Plains Depressions (F16) (MLRA 72 & 73 of LRR H) ☐ 1 cm Muck (A9) (LRR I, J) ☐ Coast Prairie Redox (A16) (LRR F, G, H) ☐ Dark Surface (S7) (LRR G) ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) ☐ Reduced Vertic (F18) ☐ Red Parent Material (TF2) ☐ Very Shallow Dark Surface (TF12) ☐ Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☒ No ☐
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Oxidized Rhizospheres on Living Roots (C3) (where not tilled) ☐ Presence of Reduced Iron (C4) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled) ☐ Crayfish Burrows (C8) ☒ Saturation Visible on Aerial Imagery (C9) ☒ Geomorphic Position (D2) ☒ FAC-Neutral Test (D5) ☐ Frost-Heave Hummocks (D7) (LRR F)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: MDU Ellendale Substation Expansion City/County: Dickey County Sampling Date: 9/12/25
Applicant/Owner: Montana-Dakota Utilities Company (MDU) State: ND Sampling Point: 10
Investigator(s): Jeff Moss Section, Township, Range: Sec. 9, T129N, R63W
Landform (hillslope, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 3
Subregion (LRR): F Lat: 46.007960 Long: -98.572445 Datum: NAD83
Soil Map Unit Name: Swenoda-Barnes fine sandy loams, 0 to 3 percent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ☒	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks: Associated with Wetland 3. Based on the USACE and ERDC Antecedent Precipitation Tool (Version 3.0), the area was experiencing wetter than normal precipitation conditions over the prior period (3 months).					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = <u>0</u> FACW species _____ x 2 = <u>0</u> FAC species _____ x 3 = <u>0</u> FACU species _____ x 4 = <u>0</u> UPL species _____ x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>NaN</u>
Sapling/Shrub Stratum (Plot size: <u>15 ft radius</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5 ft radius</u>)				Hydrophytic Vegetation Indicators: ☐ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is >50% ☐ 3 - Prevalence Index is ≤3.0 ¹ ☐ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Medicago sativa</u>	<u>70</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Cirsium arvense</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
3. <u>Sonchus arvensis</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
<u>85</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft radius</u>)				Hydrophytic Vegetation Present? Yes ☐ No ☒
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>15</u>				
Remarks:				

SOIL

Sampling Point: 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 2/1	100					CL	
18-22	10YR 4/3	100					CL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

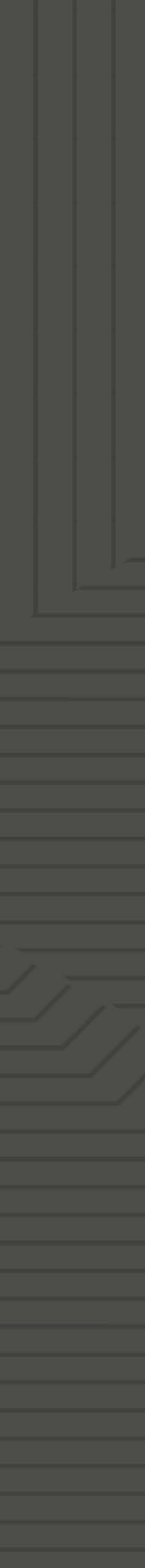
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) ☐ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) (LRR F) ☐ 1 cm Muck (A9) (LRR F, G, H) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) ☐ 5 cm Mucky Peat or Peat (S3) (LRR F)	Indicators for Problematic Hydric Soils³: ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Loamy Mucky Mineral (F1) ☐ Loamy Gleyed Matrix (F2) ☐ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8) ☐ High Plains Depressions (F16) ☐ 1 cm Muck (A9) (LRR I, J) ☐ Coast Prairie Redox (A16) (LRR F, G, H) ☐ Dark Surface (S7) (LRR G) ☐ High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) ☐ Reduced Vertic (F18) ☐ Red Parent Material (TF2) ☐ Very Shallow Dark Surface (TF12) ☐ Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes ☐ No ☒
Remarks:	

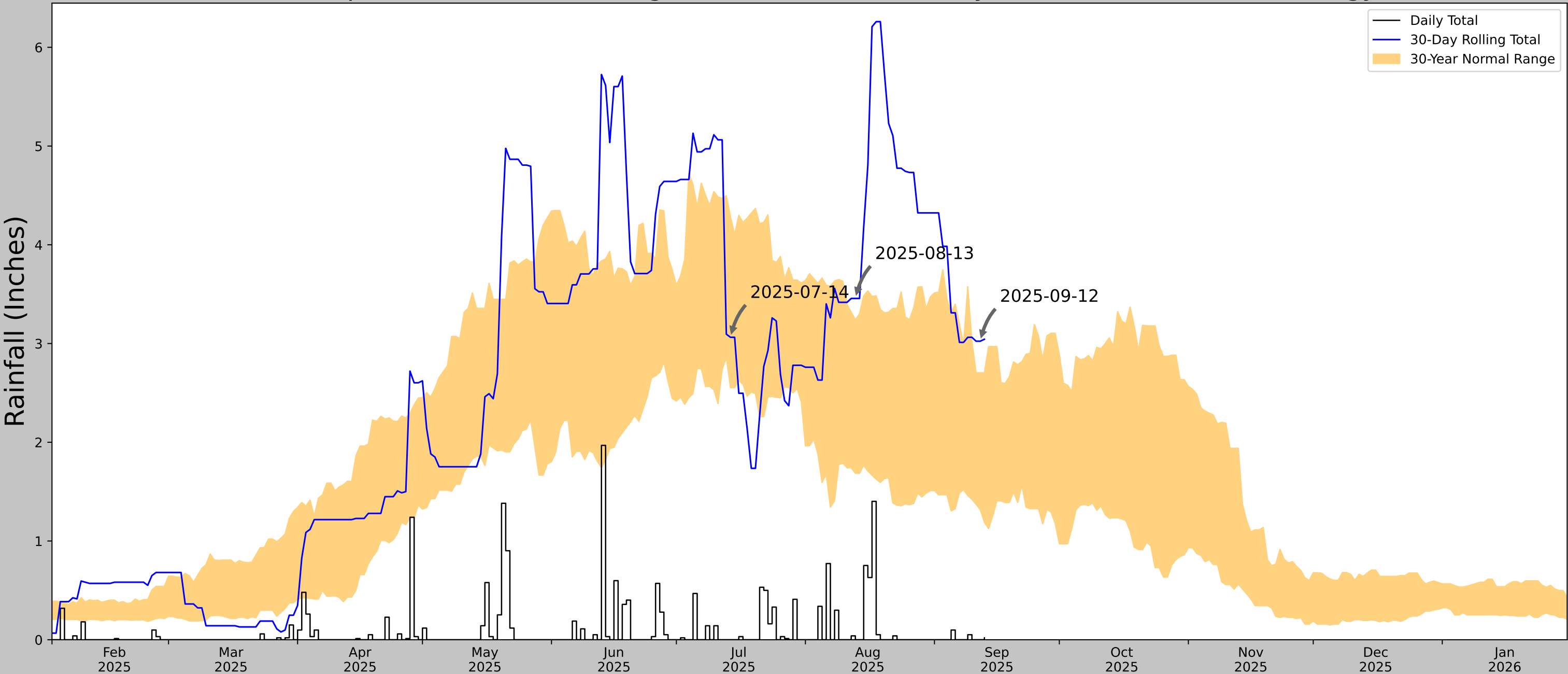
HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Dry-Season Water Table (C2) ☐ Oxidized Rhizospheres on Living Roots (C3) (where not tilled) ☐ Presence of Reduced Iron (C4) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Drainage Patterns (B10) ☐ Oxidized Rhizospheres on Living Roots (C3) (where tilled) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Geomorphic Position (D2) ☐ FAC-Neutral Test (D5) ☐ Frost-Heave Hummocks (D7) (LRR F)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			



APPENDIX D | Antecedent Precipitation Tool Output

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	46.00827, -98.57292
Observation Date	2025-09-12
Elevation (ft)	1479.147
Drought Index (PDSI)	Severe wetness (2025-08)
WebWIMP H ₂ O Balance	Dry Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-09-12	1.317717	2.704331	3.023622	Wet	3	3	9
2025-08-13	1.685827	3.240945	3.456693	Wet	3	2	6
2025-07-14	2.552756	4.282284	3.062992	Normal	2	1	2
Result							Wetter than Normal - 17

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
WESTPORT 2 NW	45.6764, -98.5303	1380.906	23.022	98.241	12.621	8070	89
WESTPORT 2.5 NNW	45.6817, -98.5167	1384.843	0.752	3.937	0.341	1	0
FREDERICK 8.4 SW	45.7422, -98.6225	1434.055	6.361	53.149	3.201	5	0
COLUMBIA 8 N	45.7231, -98.3031	1305.118	11.429	75.788	6.009	3231	1
HECLA 7.1 WNW	45.9165, -98.2912	1353.018	20.196	27.888	9.651	3	0
ELLENDALE	46.0106, -98.5258	1455.053	23.092	74.147	12.104	36	0
ELM LAKE 4 NW	45.9319, -98.7647	1549.869	20.955	168.963	12.97	1	0
ELLENDALE 7.3 NW	46.0696, -98.6441	1520.997	27.714	140.091	16.354	6	0

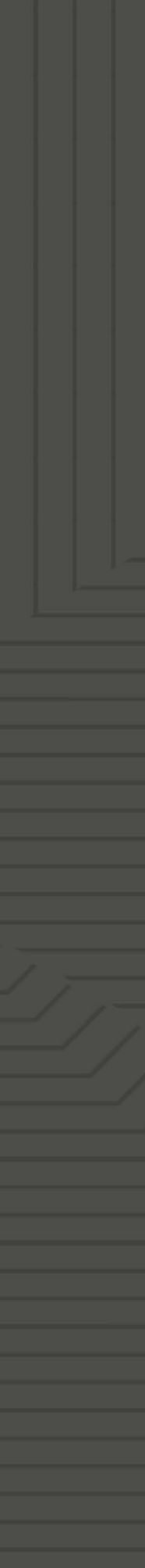


US Army Corps of Engineers.



Figures and tables made by the
Antecedent Precipitation Tool
Version 3.0

Developed by:
U.S. Army Corps of Engineers and
U.S. Army Engineer Research and
Development Center

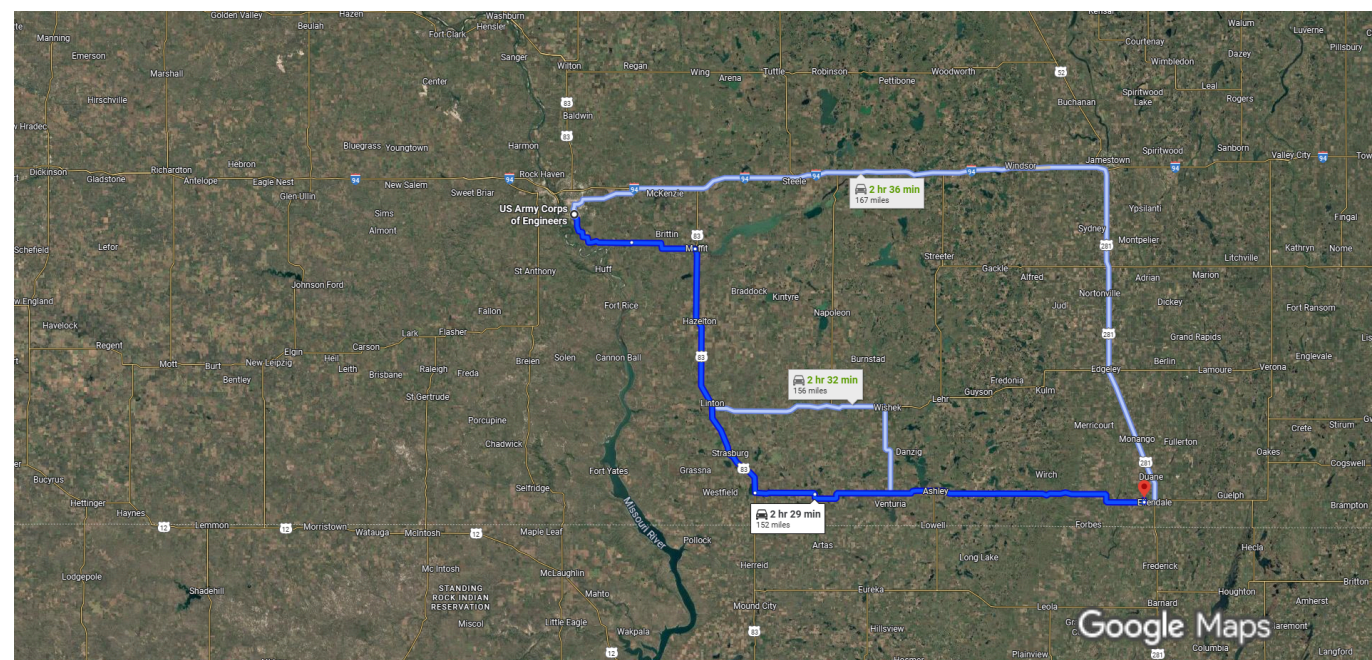


APPENDIX E | Driving Directions to the Site



US Army Corps of Engineers, 3319 University Dr, Bismarck, ND 58504 to 9708 87th Ave SE, Ellendale, ND 58436

Drive 152 miles, 2 hr 29 min



Imagery ©2025 NASA, Map data ©2025 Google 10 mi

US Army Corps of Engineers
3319 University Dr, Bismarck, ND 58504

- ↑

1. Head south on ND-1804 S toward Fort Berthold Ave

14.8 mi
- ↶

2. Turn left onto 158th St SE

361 ft
- ↷

3. Turn right onto Moffit Rd

12.5 mi
- ↷

4. Turn right onto US-83 S

48.8 mi
- ↶

5. Turn left onto ND-11 E

11.2 mi
- ↷

6. Slight right to stay on ND-11 E

64.5 mi
- ↶

7. Turn left onto 87th Ave SE

0.5 mi

9708 87th Ave SE
Ellendale, ND 58436

Appendix G – USFWS Resources List

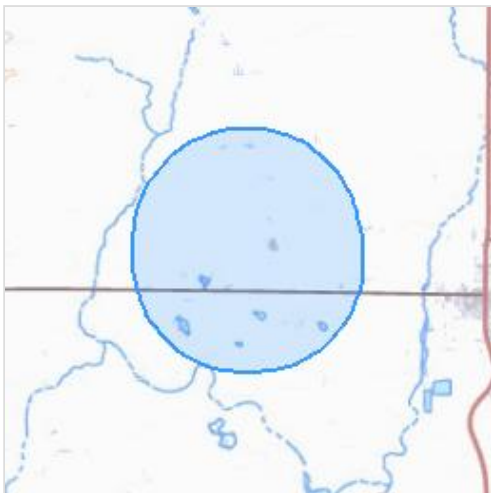
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Dickey County, North Dakota



Local office

North Dakota Ecological Services Field Office

☎ (701) 250-4481

📅 (701) 355-8513

3425 Miriam Avenue
Bismarck, ND 58501-7926

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²). Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

- 1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
- 2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
Whooping Crane Grus americana There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/758	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found There is proposed critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's Cuckoo Bumble Bee Bombus suckleyi No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10885	Proposed Endangered
Western Regal Fritillary Argynnis idalia occidentalis Wherever found No critical habitat has been designated for this species.	Proposed Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

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

The [data](#) in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the [Supplemental Information on Migratory Birds and Eagles document](#) to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

Additional information can be found using the following links:

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

Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$;

at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

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

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

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

- 1. The [Migratory Birds Treaty Act](#) of 1918.
- 2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

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

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases [birds of concern](#), including [Birds of Conservation Concern \(BCC\)](#), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the [Nationwide avoidance and minimization measures for birds](#) document, and any other project-specific avoidance and minimization measures suggested at the link [Measures for avoiding and minimizing impacts to birds](#) for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

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

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

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25

Franklin's Gull *Leucophaeus pipixcan*
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 1 to Jul 31

Red-headed Woodpecker *Melanerpes erythrocephalus*
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 10 to Sep 10

Probability of Presence Summary

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

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

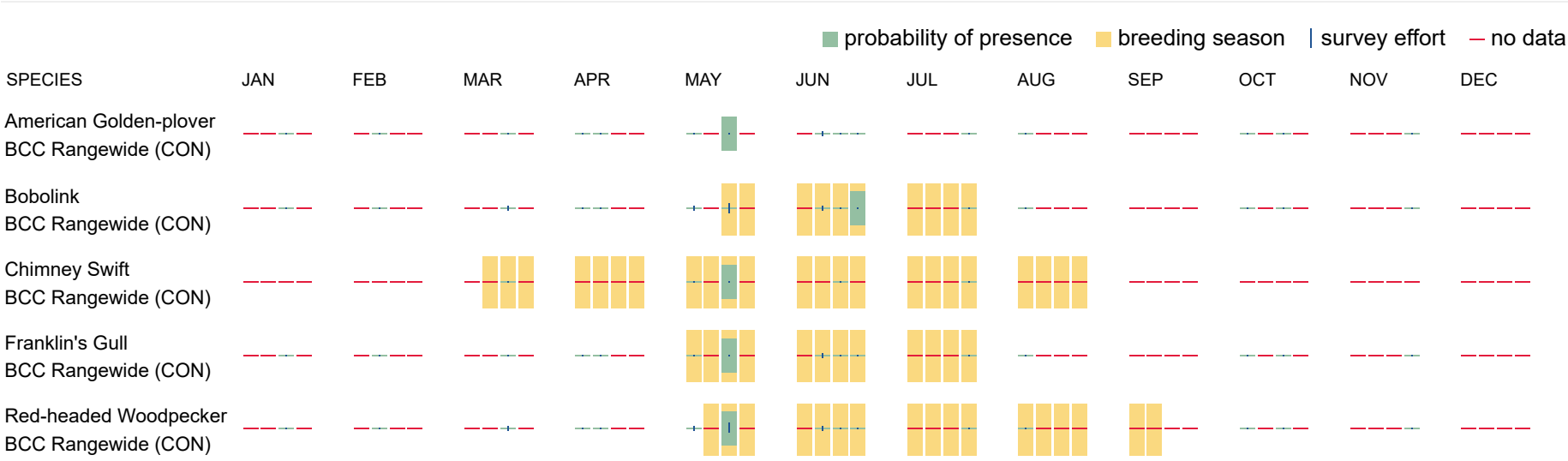
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

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

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Avoidance & Minimization Measures for Birds](#) describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the [Bald and Golden Eagle Protection Act](#) and those species marked as "Vulnerable". See the FAQ "What are the levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle ([Bald and Golden Eagle Protection Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the [RAIL Tool](#) and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Bald and Golden Eagle Protection Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and

minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()

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

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Facilities

National Wildlife Refuge lands

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

This location overlaps the following National Wildlife Refuge lands:

LAND	ACRES
DICKEY COUNTY WATERFOWL PRODUCTION AREA	0 acres

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

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

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.