BASIN ELECTRIC POWER COOPERATIVE
A Touchstone Energy® Cooperative

September 30, 2024

Mr. Steven Kahl
Director, Public Utilities Division
North Dakota Public Service Commission
600 East Boulevard; Department 408
Bismarck, ND 58505-0480

Re: Basin Electric Power Cooperative
Case No. PU-24-236 Antelope Valley Station to Neset 345-kV Transmission Line
Application Amendment

Dear Mr. Kahl:

Enclosed please find an original and seven (7) copies of Basin Electric Power Cooperative's Amendment to the Application for a Consolidated Certificate of Corridor Compatibility and Route Permit for the Antelope Valley Station to Neset 345-kV Transmission Line Project. This application, originally submitted in June of 2024, is being resubmitted in its entirety, incorporating agency correspondence, per NDAC Section 69-06-01-05. A USB flash drive containing the application in electronic format and corresponding GIS data and black and white newspaper map has also been included.

For inquiries regarding the application, please contact me at rking@bepc.com or at (701) 557-5558 with copy to Ms. Casey Jacobson, Senior Staff Counsel, at cjacobson@bepc.com or at (701) 557-5413. If preferable, correspondence can be sent to our physical address of 1717 East Interstate Avenue, Bismarck, ND 58503.

Sincerely,

Ryan King
Environmental Coordinator

Enclosures

Cc: Casey Jacobson

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

for

Basin Electric Power Cooperative's Antelope Valley Station to Neset 345-kV Transmission Line Williams County, North Dakota

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

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September 2024

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1.0 INTRODUCTION

On April 23, 2014, under Case Number PU-11-696, the North Dakota Public Service Commission (Commission) adopted the Findings of Fact, Conclusions of Law and Order granting a waiver of procedures and time schedules in issuing Corridor Certificate No. 152 and Route Permit No. 164 to Basin Electric Power Cooperative (Basin Electric). This Corridor Certificate and Route Permit authorizes the construction of approximately 197 miles of 345-kV and 230-kV electric transmission line and associated facilities (Project) by Basin Electric. The Project was built and has been operational since 2016 and extends from the Antelope Valley Station (AVS) near Beulah, North Dakota to the Neset Substation near Tioga, North Dakota. Since the January 2016 Amendment and Corridor/Route revisions, additional facilities are being proposed as part of the Project and include:

- Construction of a new 345/115-kV load-serving substation near Williston, North Dakota (Springbrook Substation) to serve the system of Basin Electric's member, Mountrail Williams Electric Cooperative (MWEC) (**Figure 1.0-1**).
- Installation of two new 345-kV structures to tie the existing AVS-Neset 345-kV transmission line to the proposed Springbrook Substation (**Figure 1.0-2**).
- Installation of a 115-kV circuit on approximately 6.8 miles of existing 345-kV structures to connect the proposed Springbrook Substation to the existing MWEC East Fork Substation (**Figure 1.0-3**).
- Installation of a 250-foot microwave tower to be located within the proposed Springbrook Substation's fence.

The addition of the proposed Springbrook Substation, additional 345-kV structures, and microwave tower does not significantly alter the information presented in the original application, or any subsequent addendum. One 345-kV structure relocation and the addition of the 115-kV circuit will remain within the existing corridor. The proposed Springbrook Substation, one new 345-kV structure, and the microwave tower would be located outside of the existing corridor. Only the siting criteria information that has changed because of the proposed additions is presented in this amendment. All other sections of the original March 2013 application and the July 2013, July 2014, December 2014, January 2015, and January 2016 Amendments remain in effect. The general structure of this amendment remains the same, with similar chapters and sections.

Figure 1.0-1: Proposed Additional 345-kV Transmission Line Overview Map

Antelope Valley Station to Neset 345-kV Transmission Project

Basin Electric Power Cooperative

Williams County, North Dakota

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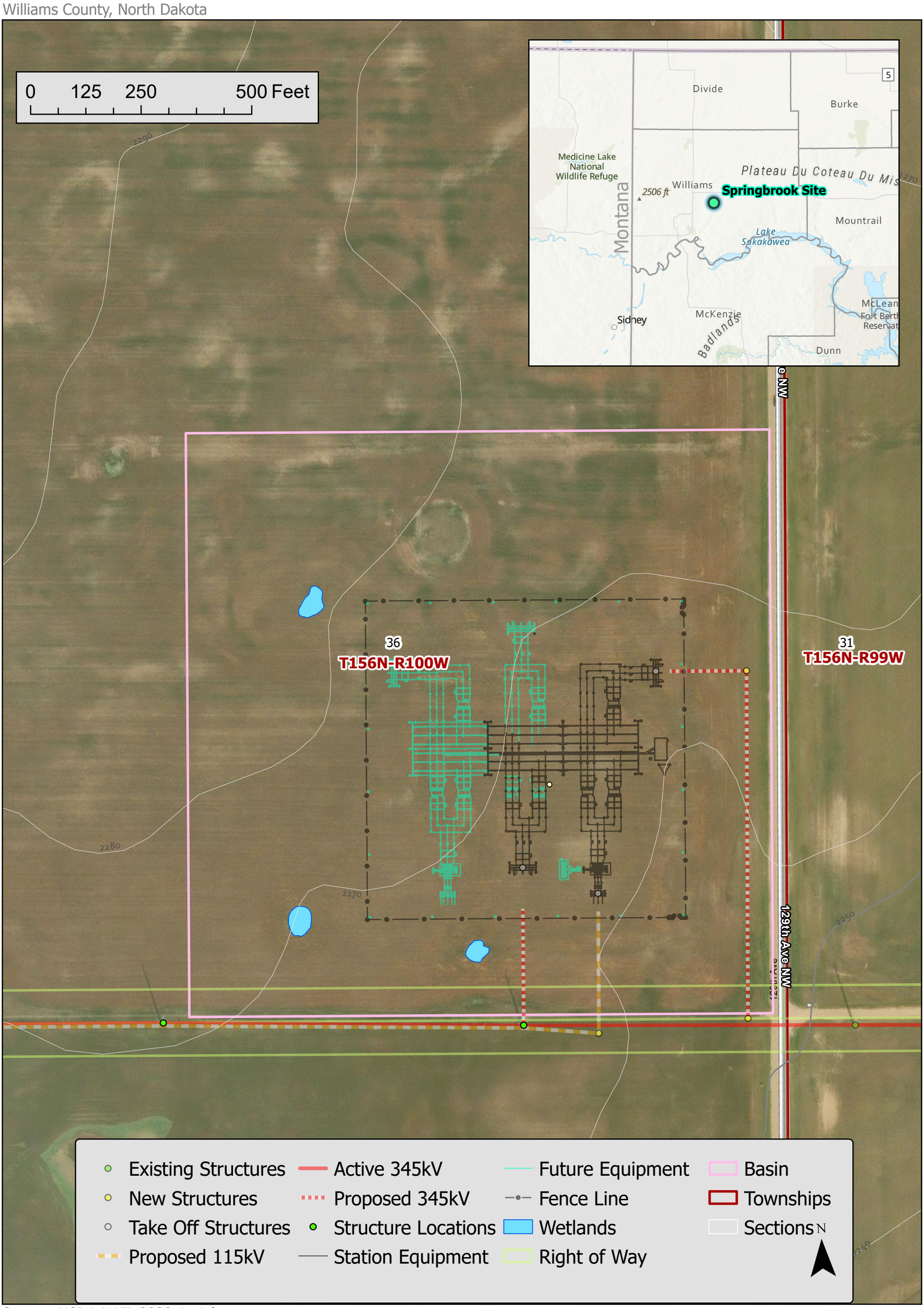

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Figure 1.0-2: Proposed Additional 345-kV Transmission Line Overview Map

Antelope Valley Station to Neset 345-kV Transmission Project

Basin Electric Power Cooperative

Williams County, North Dakota

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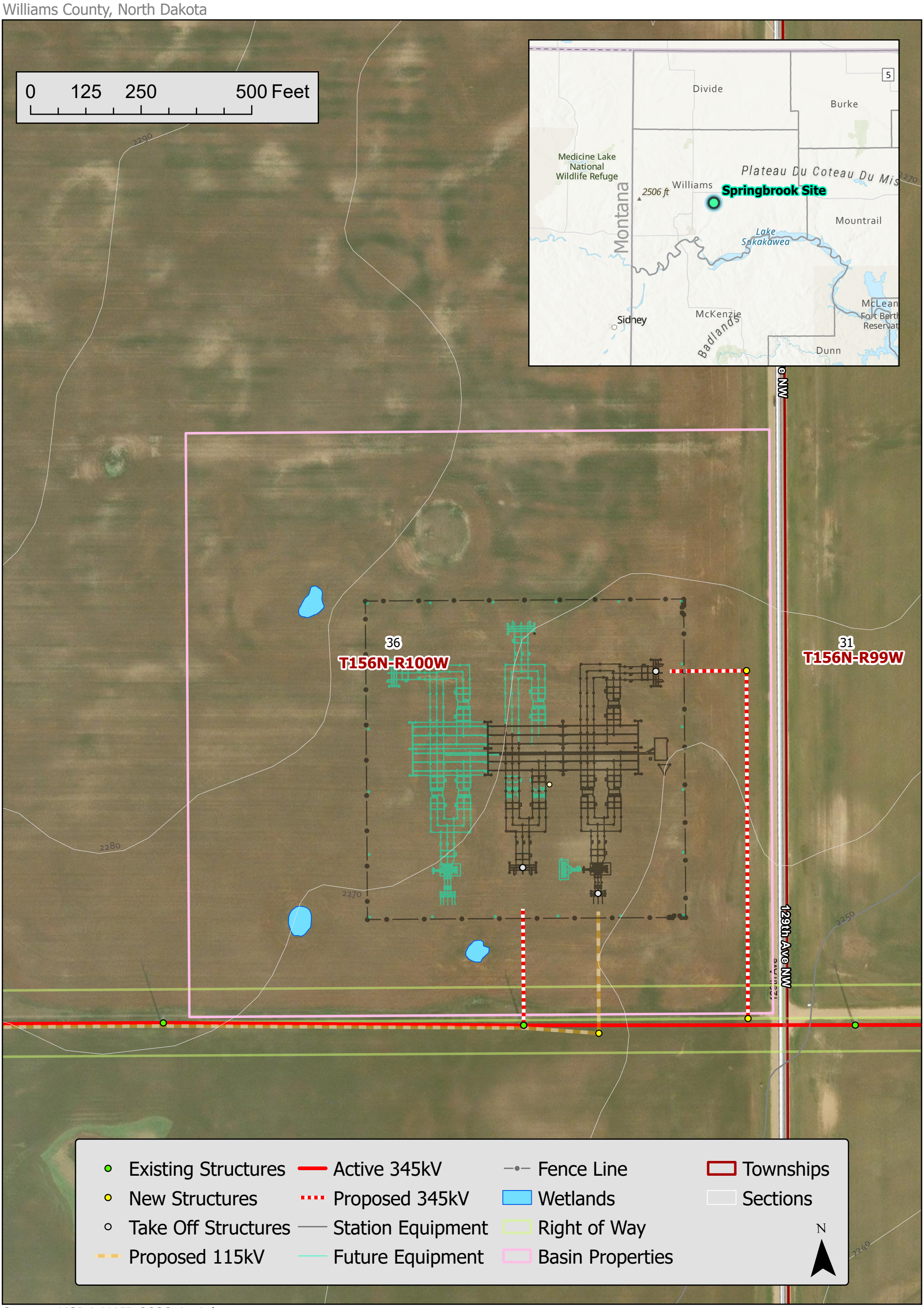

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Figure 1.0-3: Proposed 115-kV Transmission Line Overview Map

Antelope Valley Station to Neset 345-kV Transmission Project

Basin Electric Power Cooperative
Williams County, North Dakota

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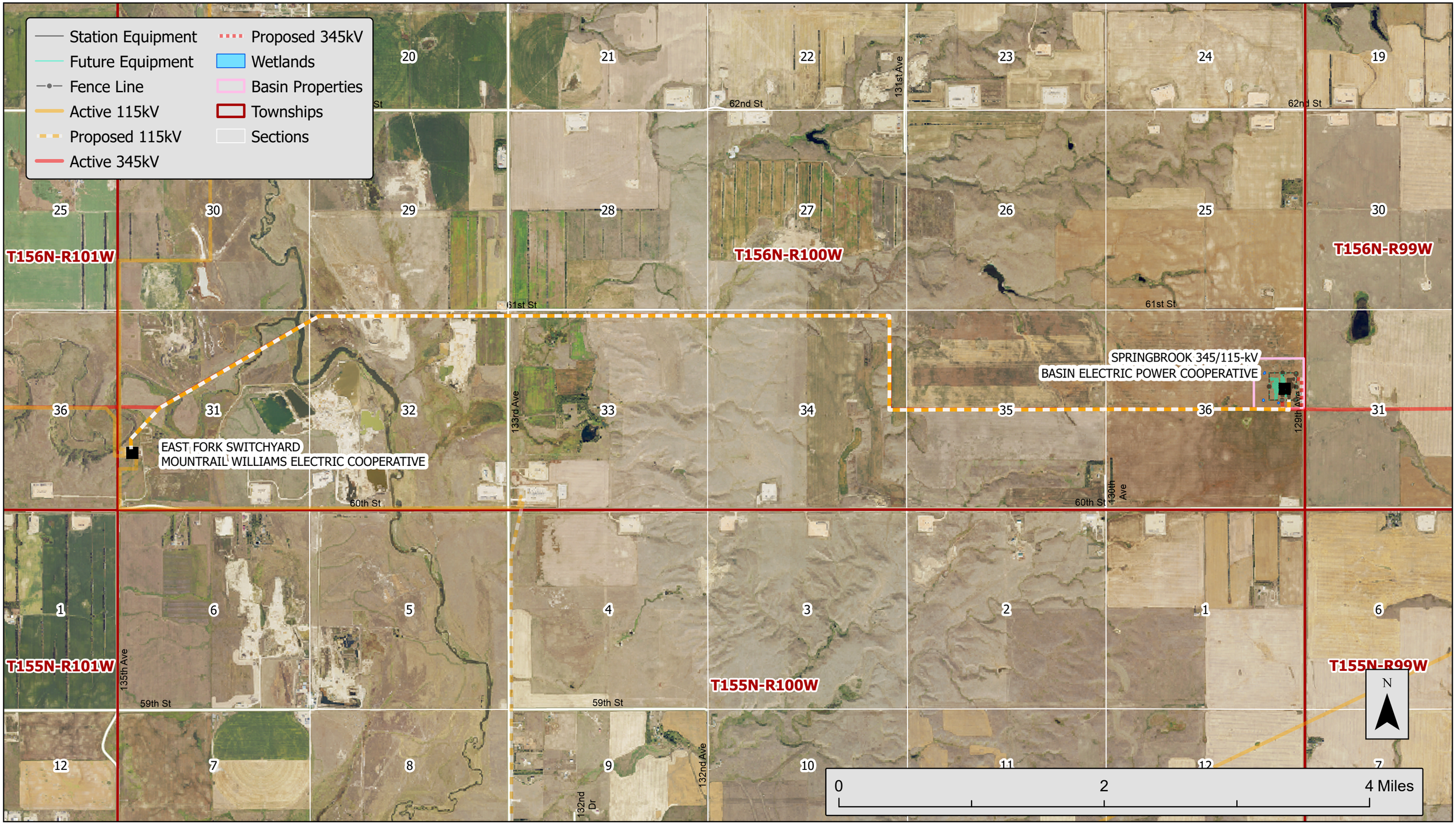

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1.1 Compliance with the Energy Conversion and Transmission Facility Siting Act

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

1.1.1 Rural Utilities Service and Western Area Power Administration and U.S. Forest Service Planning Documents

The Rural Utilities Service (RUS), along with Western Area Power Administration (Western) and U.S. Forest Service (USFS), as cooperating agencies, issued the Final Environmental Impact Statement for the Project in May 2014. USFS and RUS issued their individual Records of Decision (RODs) in September 2014, and Western issued its ROD in November 2014. There are no changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

1.1.2 Letter of Intent

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

1.1.3 Certificate of Corridor Compatibility

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower. **Table 1.1-1** below outlines the requirements to fulfill a Certificate and Route Permit application and the application addendum section that addresses the requirement.

TABLE 1.1-1: Certificate of Corridor Compatibility and Route Permit Criteria Checklist

Description		Section(s) Addressed
NDAC 69-06-05-01 - Transmission Facility Permit		
Subsection 2 - Contents		
a.	A description of the following:	
a. (1)	The type of facility proposed	1.0, 2.1, 4.1, 4.2
a. (2)	Purpose of the facility	1.0, 2.1
a. (3)	The technology to be used	1.0, 4.1, 4.2, 5.6
a. (4)	The type of product to be transmitted	1.0, 4.1, 4.2
a. (5)	The source of the product to be transmitted	1.0, 2.1
a. (6)	The final destination of the transmission line	1.0, 1.2, 2.1, 2.2, 4.1
a. (7)	The proposed size and design and any alternate size or design that was considered, including: (a) The width of right of way (ROW); (b) The approximate length of the facility; (c) The estimated span length for electric facilities; (d) The anticipated type of structure for electric facilities; (e) The voltage for electric facilities; and (f) The requirement for and location of any new associated facilities	1.0, 1.2, 2.2 4.1, 4.2

TABLE 1.1-1: Certificate of Corridor Compatibility and Route Permit Criteria Checklist

Description		Section(s) Addressed
b.	The anticipated time schedule for accomplishing major events, including: (1) Obtaining the certification of corridor compatibility; (2) Obtaining the route permit; (3) Completing right-of-way acquisition; (4) Starting construction; (5) Completing construction; (6) Testing operations; and (7) Commencing operations.	1.3
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.	5.0, Appendix C
d.	An analysis of the need for the proposed facility based on present and projected demand for the product transmitted, including the most recent system studies supporting the analysis of the need.	1.0, 2.1
e.	A description of any feasible alternative methods for serving the need	2.2
f.	The width of a corridor must be at least ten percent of its length, but not less than one mile [1.61 kilometers] or greater than six miles [9.66 kilometers] unless another appropriate width is determined by the commission.	1.2
g.	A study area that includes a proposed corridor of sufficient width to enable the commission to evaluate the factors addressed in North Dakota Century Code section 49-22-09.	1.2.1
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.	8.0
i.	A discussion of the applicant's policies and commitments to limit the environmental impact of its facilities, including copies of board resolutions and management directives.	4.2.3.10
j.	Identification and map of the criteria that led to the proposed route location within the designated corridor, including exclusion areas, avoidance areas, selection criteria, policy criteria, design construction limitations, and economic considerations.	3.0, 3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 5.0, Figure 3.1-1
k.	A discussion of the relative value of each criteria and how the applicant selected the proposed corridor location, giving consideration to all criteria and how the location, construction, and operation of the facility will affect each criteria.	2.2, 3.1, 3.2, 3.3, 3.4, 5.1.2, 5.2.2, 5.3.2, 5.4.2, 5.5.2, 5.6.2, 5.7.2, 5.8.2
l.	A discussion of the general mitigative measures that the applicant will take to minimize adverse impacts that result from a route location in the proposed corridor and the construction and operation of the facility.	4.8, 4.9, 4.10, 4.11, 5.1.2, 5.2.2, 5.3.2, 5.4.2, 5.5.2, 5.6.2, 5.7.2, 5.8.2, 5.9.2, 5.10.2, 5.11.2, 5.12.2, 5.13.2
m.	Qualifications of each person involved in the corridor location study.	9.0
n.	A map identifying the criteria that led to the proposed route location within the designated corridor and the location of any new associated facilities. Several different criteria may be shown on each map depending on the map scale and the density and nature of the criteria.	Figure 1.0-1, Figure 3.1-1, Figure 5.2-1, Figure 5.13-1
o.	An eight and one-half-inch by eleven-inch black and white map suitable for newspaper publication depicting the site area	Electronically submitted
p.	A discussion of present and future natural resource development in the area	3.1, 3.2, 3.3, 3.4, 3.5, 5.1, 5.5.2, 5.6.2, 5.7.2, 5.8.2, 6.0
q.	Map and geographic information systems (GIS) requirements. The applicant shall provide information that is complete, current, presented clearly and concisely, and supported by appropriate references to technical and other written material available to the commission.	Electronically submitted
NDAC 69-06-08-02 - Transmission Facility Corridor and Route Criteria		
The following criteria must guide and govern the preparation of the inventory of exclusion and avoidance areas, and the corridor and route suitability evaluation process:		
1.	Exclusion Areas	3.1, Figure 3.1-1
2.	Avoidance Areas	3.2, Figure 3.1-1
3.	Selection Criteria	3.3, Figure 1.0-1, Figure 1.0-2, Figure 1.0-3, Figure 5.13-1
4.	Policy Criteria	3.4

TABLE 1.1-1: Certificate of Corridor Compatibility and Route Permit Criteria Checklist

Description		Section(s) Addressed
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, 4.1, 4.1
b.	A summary of any studies which have been made of the environmental impact of the facility.	5.8,5.12, 5.13 Appendix C
c.	A statement explaining the need for the facility.	1.0, 2.1
d.	An identification of the location of the preferred site for any electric energy conversion facility	1.0, 2.1, 2.2
e.	An identification of the location of the preferred corridor for any electric transmission facility	1.0, 1.2, Figure 1.0-2, Figure 1.0-3
f.	A description of the merits and detriments of any location identified and a comprehensive analysis with supporting data showing the reasons why the preferred location is best suited for the facility	5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 5.10, 5.11, 5.12, 5.13
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	5.1.3, 5.2.3, 5.3.3, 5.4.3, 5.5.3, 5.6.3, 5.7.3, 5.8.3, 5.9.3, 5.10.3, 5.11.3, 5.12.3, 5.13.3
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.	3.1, 3.2
i.	Such other information as the applicant may consider relevant or the commission may require.	4.2
NDCC 49-22-08.1 - Application for a permit - Notice of filing - Amendment - Designation of a route.		
Section 1 - An application for a route permit for a transmission facility within a designated corridor shall be filed no later than two years after the issuance of the certificate and shall be in such form as the commission may prescribe, containing the following information:		
a.	A description of the type, size and design of the proposed facility.	1.0, 4.1, 4.2
b.	A description of the location of the proposed facility.	1.0, 1.2
c.	An evaluation of the proposed route with regard to the applicable considerations set out in section 49-22-09 and the criteria established pursuant to section 49-22- 05.1.	3.1, 3.2
d.	A description of mitigative measures that will be taken to minimize all foreseen adverse impacts resulting from the location, construction, and operation of the proposed facility.	5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 5.10, 5.11, 5.12, 5.13
e.	A description of the right-of-way preparation and construction and reclamation procedures.	4.2.3
f.	A statement setting forth the manner in which: (1) The utility will inform affected landowners of easement acquisition, and necessary easement conditions and restrictions. (2) The utility will compensate landowners for easements, without reference to the actual consideration to be paid.	1.5
g.	Such other information as the utility may consider relevant or the commission may require.	3.0
NDCC 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.	5.0, Appendix C
b.	The effects of new energy conversion and transmission technologies and systems designed to minimize adverse environmental effects.	4.2.3.10
c.	The potential for beneficial uses of waste energy from a proposed energy conversion facility.	N/A
d.	Adverse direct and indirect environmental effects which cannot be avoided should the proposed site or route be designated.	5.0
e.	Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.	To be determined

TABLE 1.1-1: Certificate of Corridor Compatibility and Route Permit Criteria Checklist

Description		Section(s) Addressed
f.	Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.	3.5, 5.8, 5.12, 5.15
g.	The direct and indirect economic impacts of the proposed facility.	3.6
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.	3.0, 5.2, 6.0
i.	The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.	3.1, 3.2, 5.8, Appendix B
j.	The effect of the proposed site or route on areas which are unique because of biological wealth or because they are habitats for rare and endangered species.	3.1, 5.13, Appendix E
k.	Problems raised by federal agencies, other state agencies, and local entities.	6.0

1.2 Project Summary

No changes to this section other than the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

The addition includes one 345/115-kV load-serving substation (Springbrook Substation) to tie MWEC's 115-kV system to the AVS to Neset 345-kV transmission line. The proposed Springbrook Substation would be adjacent to the existing AVS to Neset transmission line, northeast of the City of Williston in Section 36, Township 156N, Range 100W, Williams County, North Dakota. Basin Electric has land rights thru an Option to Purchase the entire 40.06-acre parcel on which the substation site would be located. The proposed substation would occupy approximately 11.9 acres within the site's fenced area; graded and bermed areas around the site will occupy 6.92 acres. Two additional 345-kV structures will also be located within the Basin Electric owned parcel and would occupy less than 0.01 acres. The 115-kV circuit runs in an east to west direction and is approximately 6.8 miles long, connecting the proposed Springbrook substation to MWEC's East Fork Substation. The 115-kV circuit would not occupy any additional area as the circuit would be installed on the existing 345-kV double-circuit structures. The microwave tower will be installed within the proposed substation fence. The additions are entirely within Williams County, North Dakota (see **Figure 1.0-1** through **Figure 1.0-3**). **Table 1.2-1** below shows the Township, Range, and Sections each proposed Project addition encompasses.

Table 1.2-1: Project Additions Route and Corridor Public Legal Descriptions

Project Addition	County	Township	Range	Sections
Springbrook Substation	Williams	156N	100W	36
345-kV Structure Additions		156N	100W	36
115-kV Circuit Addition		156N	100W	31, 32, 33, 34, 35, 36
Microwave Tower		156N	100W	36

1.2.1 Study Area, Project Corridor, and Route Development Summary

No changes to the original study area or project corridor. The study area for the Project additions was the entire 40.06-acre Basin Electric owned parcel. **Figure 1.2-1** is updated to include the proposed additions.

1.2.2 Product

No changes from the addition of the Springbrook Substation, associated transmission lines, and microwave tower.

Figure 1.2-1: Overall Proposed Project Area and Proposed Corridor/Route

Antelope Valley Station to Neset 345-kV Transmission Project

Basin Electric Power Cooperative

Williams County, North Dakota

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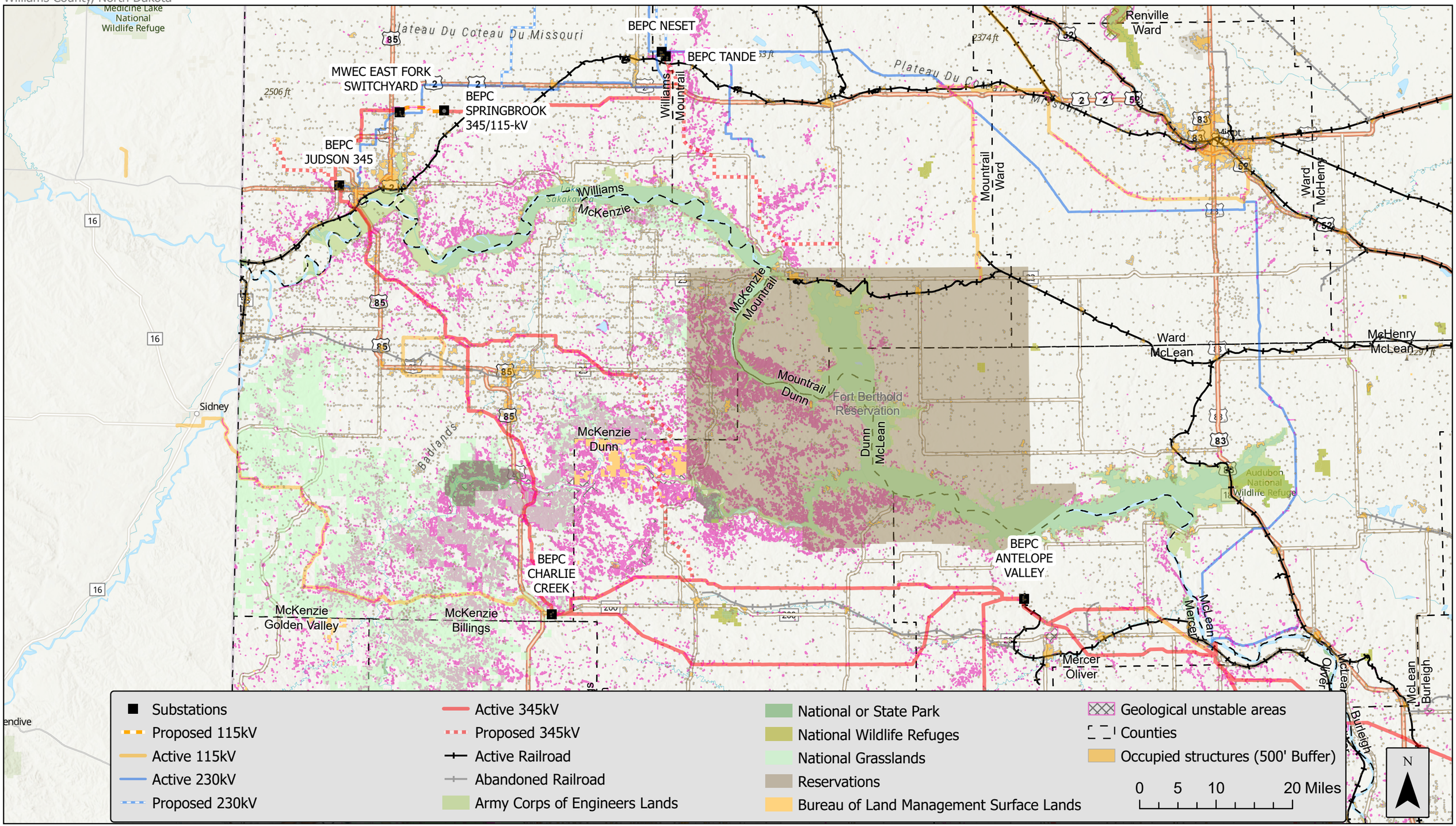

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1.3 Project Schedule

Basin Electric will commence construction of the proposed additions in July 2024, pending permit approvals. Construction is anticipated to be completed September 2025, with reclamation extending into 2026. An overview of the Project addition construction schedule is provided in **Table 1.3-1**.

Table 1.3-1: Project Addition Construction Schedule

Corridor Certificate/Route Permit Issued	April 2014
Corridor Certificate/Route Permit Amendment Application for the Springbrook Substation and Associated Transmission Lines	September 2024
Corridor Certificate/Route Permit Amendment for the Springbrook Substation and Associated Transmission Lines Approved	Anticipated October 2024
Property Acquisition Complete	June 2024
Overall Project Addition Start Date	October 2024
Substation Construction Start Date	October 2024
345-kV Structure Addition/Relocations Start Date	March 2025
115-kV Circuit Addition Start Date	March 2025
Microwave Tower Start Date	May 2025
Construction Completion	August 2025
Test Operations	August 2025
In-Service Date	September 2025

1.4 Future Associated Facilities

Basin Electric currently has no planned future associated facilities for this Project.

1.5 Easement Acquisition

Basin Electric has secured an Option to Purchase the 40.06-acre parcel in which the substation, additional 345-kV structures, and microwave tower are proposed to be located. The 115-kV circuit will occupy the existing corridor and no further easement acquisition is necessary. Current landowners will be notified prior to work commencing on the 115-KV circuit.

2.0 NEED FOR FACILITY

2.1 Need Analysis

An additional substation, associated transmission lines, and microwave tower have been added to the Project, as indicated in this addendum. In July 2022, Basin Electric received a Notice to Construct (NTC – 210675) from Southwest Power Pool (SPP) for an Approved Reliability Network Upgrade project to construct a new 345/115-kV substation (**Appendix A**). The upgrade was selected as part of the 2021 SPP Interregional Transmission Planning (ITP) Assessment to include a new 115-kV delivery point from the existing 345-kV system to support regional reliability and growing electric demand. The microwave tower is needed in order to provide communications to the Springbrook Substation critical to the reliability of the bulk electric system. The addition of the substation, transmission lines and microwave tower are a minor change in the overall Project Corridor/Route.

2.2 Alternatives

The previous alternatives for the overall Project remain unchanged. Alternate locations were discussed for the proposed substation but would have required additional 345-kV and 115-kV transmission lines to accommodate the interconnection.

2.2.1 System Upgrades

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

2.2.2 Additional 115-kV Transmission Lines

Approximately 6.8 miles of 115-kV transmission circuit is part of the proposed Project addition. This 115-kV circuit would connect the proposed Springbrook Substation to the existing MWEC East Fork substation and would be installed on existing 345/115-kV double-circuit structures.

2.2.3 Additional 345-kV Transmission Lines

To connect the proposed Springbrook Substation to the existing 345-kV transmission line, one additional structure will be constructed approximately 705 feet north of the existing corridor. A second new structure will be installed within the existing 345kV corridor, approximately 33 feet north of the current transmission centerline.

2.2.4 No Action Alternative

A no action alternative would leave the region constrained by limited transmission capacity. The no action alternative does not meet the commercial needs of Basin Electric and does not serve the load growth in the area and public at-large. For these reasons, Basin Electric rejected the no action alternative.

2.2.5 Recommended System Alternatives

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

2.3 New Generation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

2.4 Ten-Year Plan

Basin Electric filed a Ten-Year Plan with the Commission in July 2022. This Project addition is consistent with the Ten-Year Plan on file with the Commission.

3.0 TRANSMISSION FACILITY CORRIDOR AND ROUTE CRITERIA

The Project Corridor is based on landowner participation, field surveys, known environmentally sensitive areas, review of Williams County and state requirements, and communications with local, state, and federal agencies. North Dakota has several site selection criteria that are considered by the Commission to determine suitability of the proposed Project additions. Basin Electric has reviewed the criteria in NDAC Chapter 69-06-08-02 and has considered these criteria in Project design. These criteria are discussed in this section.

3.1 Exclusion Areas

In accordance with NDAC Section 69-06-08-02(1), which implements North Dakota Century Code (NDCC) Section 49-22-05.1, the geographical areas listed in **Table 3.1-1** below must be excluded in the consideration of a transmission facility route. Exclusion and avoidance areas may be located within a corridor, but at no given point can such an area or areas encompass more than 50 percent of the corridor width unless there is no reasonable alternative. NDAC Section 69-06-08-02 further specifies that a buffer zone of a reasonable width to protect the integrity of the area must be included. Natural screening may be considered in determining the width of the buffer zone. Exclusion areas are mapped for the Project Corridor/Route and revisions in Volume II of the original application and in each subsequent addendum. **Figure 3.1-1** depicts the results of review for exclusion areas with the Project addition areas only.

TABLE 3.1-1: Exclusion Areas

Exclusion Area	Present in Corridor/Route	Proposed Buffer	Section Addressed
Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; monuments; and wilderness areas.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	NA
Designated or registered state: parks; historic sites; monuments; historical markers; archaeological sites; and nature preserves.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	NA
County parks and recreational areas; municipal parks; and parks owned or administered by other governmental subdivisions.	Not present within Corridor/Route. The closest County Park or recreational area is the Epping/Springbrook Dam which is located approximately 3.5 miles southeast of Springbrook Substation.	No impacts are anticipated and no buffer is proposed.	5.9
Areas critical to the life stages of threatened or endangered animal or plant species.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	5.13
Areas where animal or plant species that are unique or rare to this state will be irreversibly damaged.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	5.13
Areas within 1,200 feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.	Not present within Corridor/Route. The closest ICBM launch or launch control facility is approximately 40 miles from the Project.	No impacts are anticipated and no buffer is proposed.	6.0
Areas within 30 feet on either side of a direct line between ICBM launch or launch control facilities to avoid microwave interference.	Not present within Corridor/Route. The closest ICBM launch or launch control facility is approximately 40 miles from the Project.	No impacts are anticipated and no buffer is proposed.	6.0

3.2 Avoidance Areas

In accordance with NDAC Section 69-06-08-02(2), approval of a transmission facility cannot be in the geographical areas listed in **Table 3.2-1** below unless the applicant shows that, under the circumstances, there is no reasonable alternative. NDAC Section 69-06-08-02(2) further requires a buffer zone of a reasonable width to protect the integrity of the area. Natural screening may be considered in determining the width of the buffer zone. **Figure 3.1-1** depicts the results of review for avoidance areas with the Project addition areas only.

TABLE 3.2-1: Avoidance Areas

Avoidance Areas	Present in Corridor/Route	Proposed Buffer	Section Addressed
Designated or registered national: historic districts; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	5.9, 5.13
Designated or registered state: wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests; forest management lands; and grasslands.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	5.9, 5.13
Historical resources which are not specifically designated as exclusion or avoidance areas.	As identified through a Class I Literature Review and the Class III Cultural Resources Inventory conducted to-date, no historic sites were found within the study area	No impacts are anticipated and no buffer is proposed.	5.8
Areas which are geologically unstable.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	5.11, Figure 3.1-1
Within 500 feet of a residence, school, or place of business.	No residence, school or place of business is located within 500 feet of the Project Corridor.	No impacts are anticipated and no buffer is proposed.	5.7, Figure 3.1-1
Reservoirs and municipal water supplies.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	5.12
Water sources for organized rural water districts.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	5.12
Irrigated land.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	5.12
Areas of recreational significance which are not designated as exclusion areas.	Not present within Corridor/Route.	No impacts are anticipated and no buffer is proposed.	5.9

Figure 3.1-1: Exclusion and Avoidance Areas Map

Antelope Valley Station to Neset 345-kV Transmission Project

Basin Electric Power Cooperative
Williams County, North Dakota

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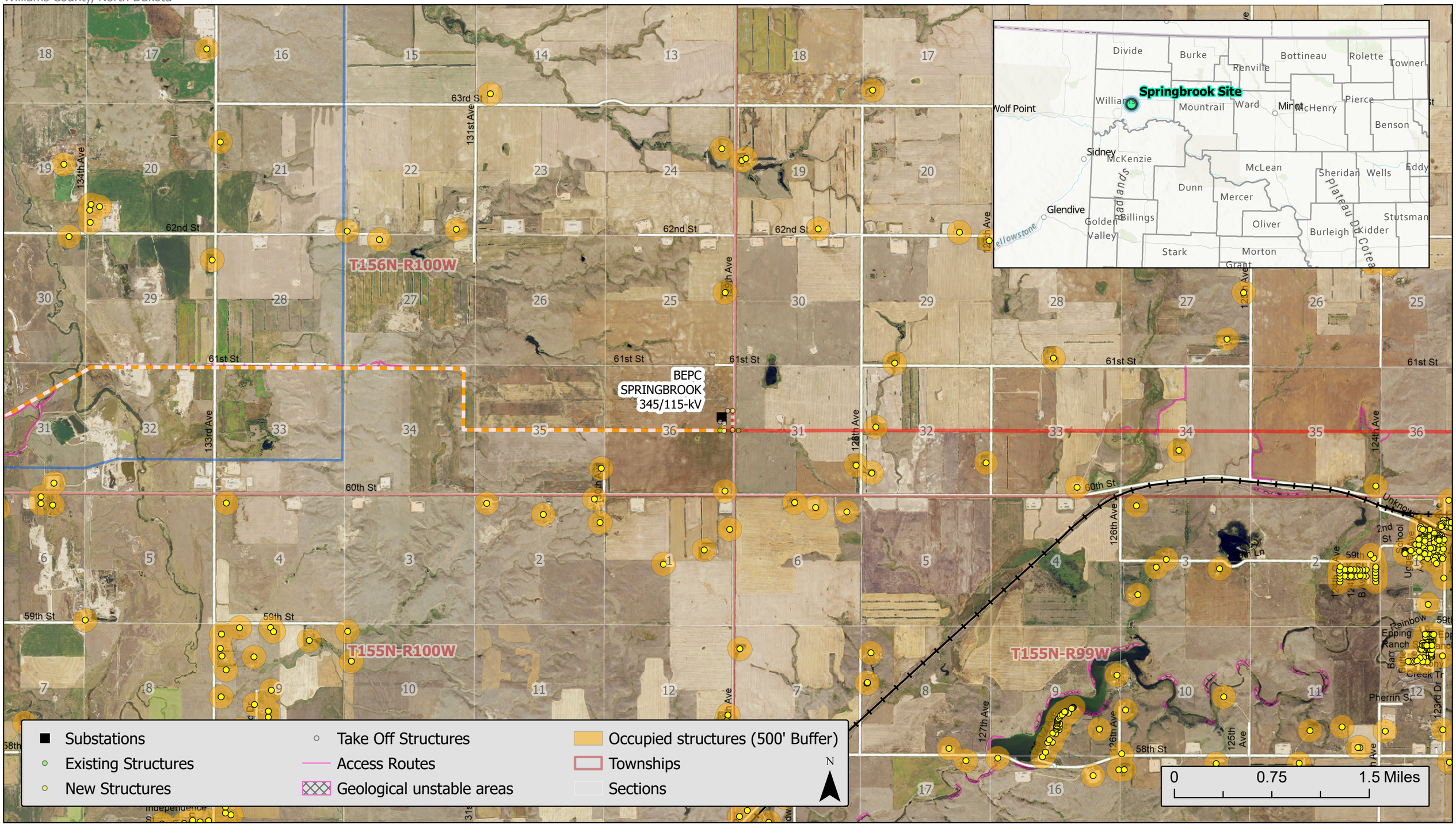

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3.3 Selection Criteria

In accordance with NDAC Section 69-06-08-02(3), a site can be approved in an area only when the applicant demonstrates to the Commission that any significant adverse effects resulting from the location, construction, and operation of the facility in that area, as they relate to the criteria listed in **Table 3.3-1** below, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum.

TABLE 3.3-1: Selection Criteria

Selection Criteria	Potential Effects	Section Addressed
The impact upon agriculture:		
Agricultural production.	Negligible/minimal effect anticipated. Where practical, construction activities will be scheduled during periods when agricultural activities will be minimally affected, or the landowner will be compensated accordingly. Landowners would be compensated for crop and forage loss that occurs as a result of construction and maintenance activities, and damage to soils would be redressed.	5.2, 5.10
Family farms and ranches.	Negligible/minimal effect anticipated. Substations and transmission lines are a compatible use with existing family farms and ranches, and the Project will not displace any farms or ranches.	5.2, 5.7, 5.10
Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.	There is no known irrigation within the Study Area, thus, no effects are anticipated. Participating landowners have not expressed concerns related to economically suitable irrigation on their land.	NA
Surface drainage patterns and ground water flow patterns.	No impacts to surface drainage patterns or groundwater flow patterns are anticipated. The Project will be designed in such a manner that runoff from the upper portions of the watershed can flow unrestricted to the lower portion of the watershed.	5.12
The impact upon:		
Sound-sensitive land uses.	Negligible/minimal effect anticipated. Following construction, there will be a minimal amount of sound from the Project.	5.6
The visual effect on the adjacent area.	Negligible/minimal effect anticipated. The Project will be visible to landowners and travelers along roadways. Existing transmission lines, oil and gas well pads, and roads are present in the viewshed.	5.7
Extractive and storage resources.	The Project would not directly affect any wells or drill rigs, because the Corridor/Route has been designed to avoid these areas and provide sufficient clearance for well maintenance and operation.	NA
Wetlands, woodlands, and wooded areas.	Negligible/minimal effect anticipated. The Project addition will impact one, 0.06-acre wetland. Impacts to wetlands and waterbodies impacted during construction will be permitted under Nationwide Permit 57. No trees or shrubs are anticipated to be removed.	5.13
Radio and television reception, and other communication or electronic control facilities.	No effect anticipated.	5.3
Human health and safety.	No effect anticipated based on compliance with sound standards and design and construction standards to meet or exceed the National Electrical Safety Code. Regular maintenance and inspections will be performed during the life of the Project to confirm its continued integrity.	5.4
Animal health and safety.	No effect anticipated. Construction work will be coordinated with landowners to avoid impacts to livestock.	5.13
Plant life.	Negligible/minimal effect anticipated. The transmission line structures will result in less than one acre of permanent ground disturbance, including loss of the existing plant life. Trees and shrubs will be replaced consistent with the Commission's Tree and Shrub Mitigation Specifications. Temporarily disturbed areas will be restored as practicable.	5.2

3.4 Policy Criteria

In accordance with NDAC Section 69-06-08-02(4), the Commission may give preference to an applicant who will maximize benefits that result from the adoption of the policies and practices

listed in **Table 3.4-1** below and may require the adoption of such policies and practices as appropriate.

TABLE 3.4-1: Policy Criteria

Policy Criteria	Potential Benefits	Section Addressed
Location and design.	The location is based on landowner participation, field surveys, known environmentally sensitive areas, and state transmission line requirements. Project design will meet the requirements of the National Electrical Safety Code for the Heavy Loading District, Basin Electric, U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) design criteria, and other applicable local or national building codes.	1.0, 1.1, 2.1, 3.1, 3.2, 3.3, 3.4
Training and use of available labor in this state for the general and specialized skills required.	Basin Electric has used several local firms in developing the Project and compiling this application and will continue to use local labor to the extent practicable.	4.2
Economies of construction and operation.	Basin Electric will use local contractors to the extent practicable.	4.2
Use of citizen coordinating committees.	Not applicable.	NA
A commitment of a portion of the transmitted product for use in this state.	The Project will meet the need for additional electric transmission capacity in northwestern North Dakota as a result of increased load growth and will meet reliability and system stability requirements for the region.	1.0, 2.1
Labor relations.	No labor relations would be negatively affected by the Project.	NA
The coordination of facilities.	Existing facilities were considered in the location of the Project. Basin Electric will avoid impacts to existing infrastructure.	1.2, 2.2
Monitoring of impacts.	Basin Electric and the contractor will employ Best Management Practices during construction to monitor soil impacts and segregate topsoil. A stormwater pollution prevention plan will be prepared for the Project.	4.2, 5.10
Use of existing and proposed rights of way and corridors	Basin Electric has routed the Project parallel to existing roadways and section lines to the extent practicable and in consideration of preferences from landowners crossed by the Project.	Figure 1.0-1, Figure 1.0-2, Figure 1.0-3
Other existing or proposed transmission facilities.	Basin Electric has paralleled the Project with existing utility corridors as practicable.	Figure 1.0-1, Figure 1.0-2, Figure 1.0-3

3.5 Design and Construction Limitations

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

3.6 Economic Considerations

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

4.0 DESIGN AND CONSTRUCTION

4.1 General Corridor/Route Description

The general Corridor/Route description remains essentially the same as presented in the original application and subsequent amendments. The only change includes the addition of the Springbrook Substation, associated transmission lines, and microwave tower, addressed in this amendment. The proposed Springbrook Substation is located in Williams County, North Dakota, approximately 10 miles northeast of Williston, in Section 36 of Township 156N, Range 100W. The proposed substation will be approximately 155 feet north of the existing AVS to Neset transmission corridor and will extend approximately 720 feet to the north. One additional 345-kV structure will be approximately 710 feet north of the existing corridor and one addition 345-kV structure will be approximately 33 feet north of the existing transmission centerline, within the existing corridor. Approximately 6.8 miles of 115-kV circuit will be installed on existing AVS to Neset 345-kV structures, connecting the proposed Springbrook substation to MWEC's East Fork substation (**Figure 1.0-1** through **Figure 1.0-3**).

4.2 Description of Proposed Facilities

Basin Electric is proposing to construct a new 345/115-kV substation, approximately 1,560 feet of new 345-kV transmission line, and 6.8 miles of new 115-kV transmission line. A 250-foot-tall microwave tower will be installed within the proposed substation fence.

4.2.1 Transmission Line Characteristics

To complete the substation construction, two additional 345-kV structures will be installed to tie the existing AVS to Neset transmission line into the proposed Springbrook Substation. One structure is located approximately 710' feet outside of the existing corridor on Basin Electric property, and the other is within the existing 345kV corridor with Basin Electric property. The structures will be a single pole, self-supporting on drilled pier concrete foundations. **Figure 4.2-1** shows a typical single pole, self-supporting structure design.

Approximately 6.8 miles of 115-kV transmission circuit will be added to the existing AVS to Neset 345-kV structures to connect the proposed Springbrook Substation to MWEC's existing East Fork substation. This addition will be accomplished by adding the 115-kV circuit to 37 existing structures. **Figure 4.2-2** shows how the 115-kV transmission circuit will be added to the existing 345-kV structures.

Figure 4.2-1: Proposed 345-kV Structure Design

Antelope Valley Station to Neset 345-kV Transmission Project

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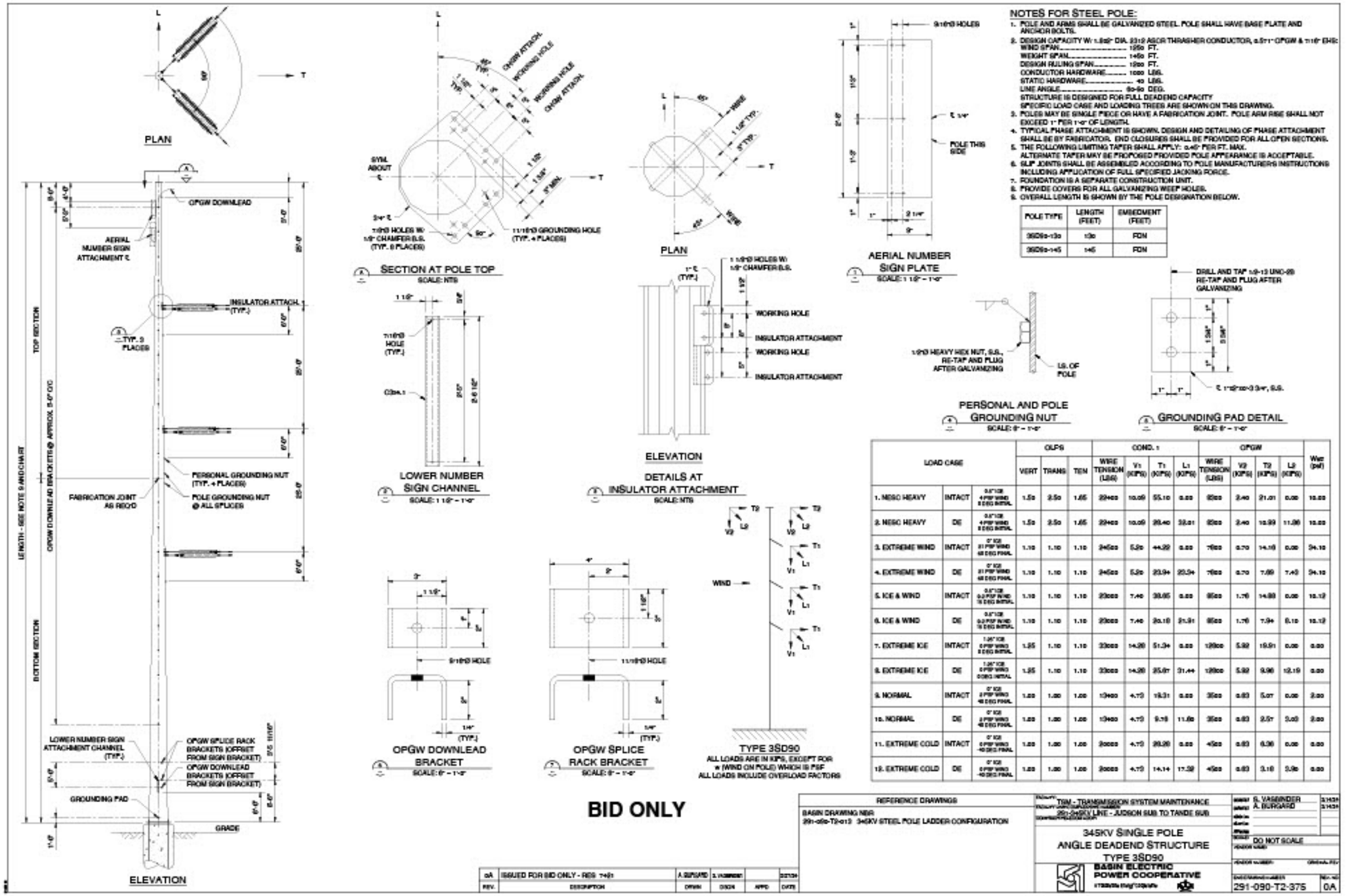

NOTES FOR STEEL POLE:

1. POLE AND ARMS SHALL BE GALVANIZED STEEL. POLE SHALL HAVE BASE PLATE AND ANCHOR BOLTS.
2. DESIGN CAPACITY W/ 1.858" DIA. 837# ACSR TRASHER CONDUCTOR, 0.571" OPGW & 1.16" EHS:
   WIND SPAN ..... 1050 FT.
   WEIGHT SPAN ..... 1450 FT.
   DESIGN RULING SPAN ..... 1200 FT.
   CONDUCTOR HARDWARE ..... 1000 LBS.
   STATIC HARDWARE ..... 40 LBS.
   LINE ANGLE ..... 30-90 DEG.
   STRUCTURE IS DESIGNED FOR FULL DEADEND CAPACITY
   SPECIFIC LOAD CASE AND LOADING TREES ARE SHOWN ON THIS DRAWING.
3. POLES MAY BE SINGLE PIECE OR HAVE A FABRICATION JOINT. POLE ARM RISE SHALL NOT EXCEED 1" PER 1'-0" OF LENGTH.
4. TYPICAL PHASE ATTACHMENT IS SHOWN. DESIGN AND DETAILING OF PHASE ATTACHMENT SHALL BE BY FABRICATOR. END CLOSURES SHALL BE PROVIDED FOR ALL OPEN SECTIONS.
5. THE FOLLOWING LIMITING TAPER SHALL APPLY: 0.40" PER FT. MAX.
   ALTERNATE TAPER MAY BE PROPOSED PROVIDED POLE APPEARANCE IS ACCEPTABLE.
6. SLIP JOINTS SHALL BE ASSEMBLED ACCORDING TO POLE MANUFACTURER'S INSTRUCTIONS INCLUDING APPLICATION OF FULL SPECIFIED JACKING FORCE.
7. FOUNDATION IS A SEPARATE CONSTRUCTION UNIT.
8. PROVIDE COVERS FOR ALL GALVANIZING WEEP HOLES.
9. OVERALL LENGTH IS SHOWN BY THE POLE DESIGNATION BELOW.

POLE TYPE	LENGTH (FEET)	EMBEDMENT (FEET)
3SD90-130	130	FDN
3SD90-145	145	FDN

LOAD CASE			OLPS			COND. 1				OPGW				Wwr (psf)
			VERT	TRANS	TEN	WIRE TENSION (LBS)	V1 (KIPS)	T1 (KIPS)	L1 (KIPS)	WIRE TENSION (LBS)	V2 (KIPS)	T2 (KIPS)	L2 (KIPS)	
1. NESC HEAVY	INTACT	0.5" ICE 4 PSF WIND 0 DEG INITIAL	1.50	2.50	1.65	22400	10.09	55.10	0.00	6500	2.40	21.01	0.00	10.00
2. NESC HEAVY	DE	0.5" ICE 4 PSF WIND 0 DEG INITIAL	1.50	2.50	1.65	22400	10.09	39.40	33.01	6500	2.40	10.99	11.26	10.00
3. EXTREME WIND	INTACT	0" ICE 31 PSF WIND 68 DEG FINAL	1.10	1.10	1.10	24500	5.20	44.22	0.00	7600	0.70	14.10	0.00	34.10
4. EXTREME WIND	DE	0" ICE 31 PSF WIND 68 DEG FINAL	1.10	1.10	1.10	24500	5.20	23.94	20.54	7600	0.70	7.69	7.43	34.10
5. ICE & WIND	INTACT	0.5" ICE 9.2 PSF WIND 15 DEG INITIAL	1.10	1.10	1.10	23000	7.40	39.65	0.00	6500	1.76	14.89	0.00	10.12
6. ICE & WIND	DE	0.5" ICE 9.2 PSF WIND 15 DEG INITIAL	1.10	1.10	1.10	23000	7.40	20.10	21.91	6500	1.76	7.94	8.10	10.12
7. EXTREME ICE	INTACT	1.25" ICE 0 PSF WIND 0 DEG INITIAL	1.25	1.10	1.10	23000	14.20	51.34	0.00	12600	5.92	19.91	0.00	0.00
8. EXTREME ICE	DE	1.25" ICE 0 PSF WIND 0 DEG INITIAL	1.25	1.10	1.10	23000	14.20	25.67	31.44	12600	5.92	9.96	12.19	0.00
9. NORMAL	INTACT	0" ICE 9 PSF WIND 45 DEG FINAL	1.00	1.00	1.00	13400	4.10	19.31	0.00	3500	0.83	5.07	0.00	2.00
10. NORMAL	DE	0" ICE 9 PSF WIND 45 DEG FINAL	1.00	1.00	1.00	13400	4.10	9.18	11.66	3500	0.83	2.57	3.03	2.00
11. EXTREME COLD	INTACT	0" ICE 0 PSF WIND -40 DEG FINAL	1.00	1.00	1.00	20000	4.10	39.20	0.00	4500	0.83	6.36	0.00	0.00
12. EXTREME COLD	DE	0" ICE 0 PSF WIND -40 DEG FINAL	1.00	1.00	1.00	20000	4.10	14.14	17.39	4500	0.83	3.18	3.96	0.00

REV.	DESCRIPTION	DRAWN	DSGN	APPD	DATE
0A	ISSUED FOR BID ONLY - REV. 7+01	A. BURGARD	S. VASSINDER		2/14/24

REFERENCE DRAWINGS
BASIN DRAWING NBR
291-090-T2-013 345KV STEEL POLE LADDER CONFIGURATION

PROJECT: TSM - TRANSMISSION SYSTEM MAINTENANCE
PROJECT DESCRIPTION: 291-345KV LINE - JUDSON SUB TO TANDE SUB
DRAWING TITLE: 345KV SINGLE POLE ANGLE DEADEND STRUCTURE TYPE 3SD90
BASIN ELECTRIC POWER COOPERATIVE
DRAWN: S. VASSINDER 2/14/24
DESIGN: A. BURGARD 2/14/24
DO NOT SCALE
DRAWING NUMBER: 291-090-T2-375
REV. NO: 0A

Figure 4.2-2: Proposed 345/115-kV Double Circuit Structure Design

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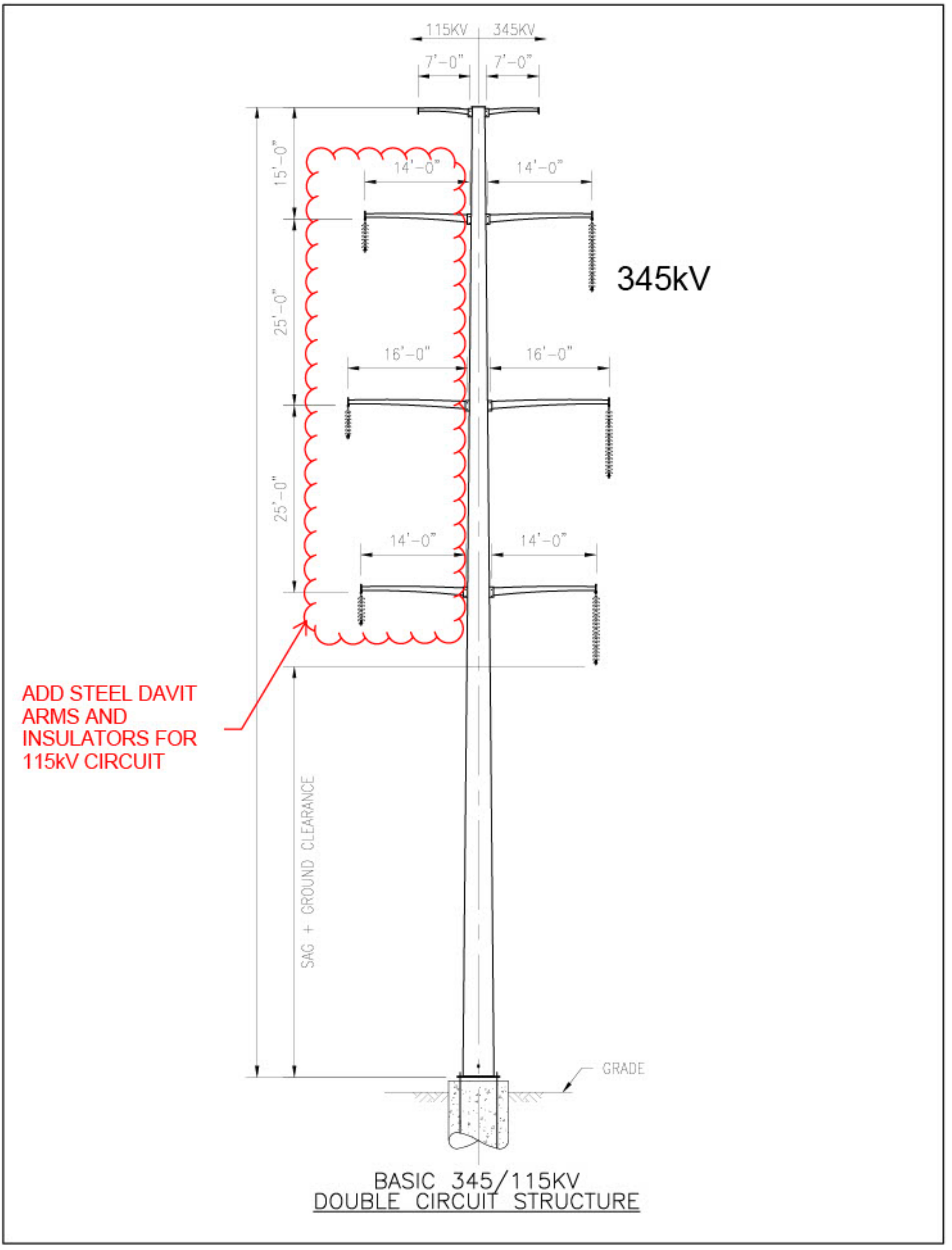
Antelope Valley Station to Neset 345-kV Transmission Project



BASIC 345/115KV
DOUBLE CIRCUIT STRUCTURE

4.2.2 Associated Facilities and Project Components

The proposed addition to the Project would require the addition of the following associated facility and Project components:

- **Springbrook 345-kV Substation.** The proposed 345/115-kV Springbrook Substation, near Williston, ND, would be approximately 11.9 acres in size, and the two access roads would occupy 0.48 acres on the 40.06-acre parcel. The substation would require the installation of a 345/115-kV transformer, and the necessary bus, circuit breakers, disconnect switches, grounding switches, and protection and control equipment to support the 345-kV interconnection.
- **Microwave Tower.** A 250-foot tall, self-supporting lattice microwave tower will be installed within the proposed substation fence.

4.2.3 Construction Techniques

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

4.2.3.1 Pre-Construction Activities

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

4.2.3.2 Transmission Structure Site Preparation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

4.2.3.3 Structure Assembly and Erection

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

4.2.3.4 Stringing and Tensioning of Conductors

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

4.2.3.5 Structure Site Access and Traffic

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

4.2.3.6 Substation Construction Procedures

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

4.2.3.7 Transmission Line Maintenance and Operation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

4.2.3.8 Substation Maintenance

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

4.2.3.9 Construction Schedule and Projected Workforce

The Project addition construction is estimated to be completed within a 14-month timeframe. Pending obtaining all necessary approvals, substation construction would start in July 2024, 345-kV structure additions would start in March 2025, 115-kV circuit addition would start in March 2025, and the microwave tower construction would start in May 2025, with an estimated in-service date for all Project additions of September 2025. The workforce is anticipated to range from 8 to 15 employees, depending on the stage of construction.

4.2.3.10 Procedures for Minimizing Environmental Impact During Construction

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

4.2.3.11 ROW and Property Issues

Basin Electric will soon acquire ownership of the 40.06-acre parcel of land in which the substation, additional 345-kV structure, and microwave tower would be constructed on.

4.2.3.12 Reclamation

Following construction, all disturbed areas will be graded and/or re-sloped to pre-construction conditions to minimize erosion and visual alteration. Cultivated land will be tilled and returned to production. Ruts and scars from overland travel will be leveled to break up compacted soils and aid in returning areas to original contours.

5.0 ENVIRONMENTAL ANALYSIS

This amendment addresses only the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower to the Project. As previously discussed, no other changes to the Project are proposed at this time. As a result, the type of resources and associated impacts are similar to those presented in the original application and each subsequent amendment. For each resource, a general description is provided, followed by a discussion of potential impacts and potential mitigation measures. However, this section presents information on only those resources for which a material change resulted in the type or quantify of an affected resource as a result of the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

The description of resources subsections describe the resources and environmental settings found in the vicinity of the Project additions. The overall Corridor/Route extends through Mercer, Dunn, McKenzie, Williams, and Mountrail Counties in North Dakota. However, the proposed substation, associated transmission lines, and microwave tower are confined to a small area within Williams County.

The area within the proposed substation fence is 11.9 acres, the two access roads total 0.48 acres, and the two additional 345-kV structures will occupy less than 0.01 acres. An additional 6.92 acres outside of the fenced substation site will be impacted by site grading and berms, totaling 19.3 acres of permanent impact. The impact discussion subsections describe the potential effects on each resource from the Project additions. For many of the resources discussed, such as vegetation and soils, permanent impacts will be limited to the Project additions area within Basin Electric property. For other resources such as wildlife, recreation, and visibility, impacts may extend outside this footprint.

The mitigation discussion subsections provide potential measures to reduce or eliminate anticipated adverse impacts identified. Standard mitigation measures have been incorporated into the development and construction of the proposed Project. These mitigation measures are designed to reduce or eliminate anticipated impacts resulting from the construction or operation of the proposed Project. They include Best Management Practices (BMPs), such as the use of silt fencing and other erosion-control measures. These standard mitigation measures are included in Appendix I, Standard Mitigation Measures of the original application.

5.1 Demographics

5.1.1 Description of Resources

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.1.2 Impacts

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.1.3 Mitigation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.2 Land Use

5.2.1 Description of Resources

Existing Land Use

The existing land use within the proposed substation, access roads, and new transmission corridor is cropland.

Zoning

A Condition Use Permit for the proposed Springbrook Substation is required for Williams County. Transmission lines are a permitted use in Williams County and do not require permitting. A Conditional Use Permit for the microwave tower has been applied for and approval is expected in July 2024.

5.2.2 Impacts

Existing Land Use

Construction of the Springbrook Substation, access roads, associated transmission lines, and microwave tower would result in the permanent conversion of approximately 19.3 acres from cropland to utility use. **Figure 5.2-1** displays existing land use surrounding the proposed substation.

Zoning

A Condition Use Permit for the Springbrook Substation has been obtained from Williams County. Approval for the microwave tower Conditional Use Permit is expected in July 2024.

5.2.3 Mitigation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

Figure 5.2-1: Existing Land Use Map

Antelope Valley Station to Neset 345-kV Transmission Project

Basin Electric Power Cooperative
Williams County, North Dakota

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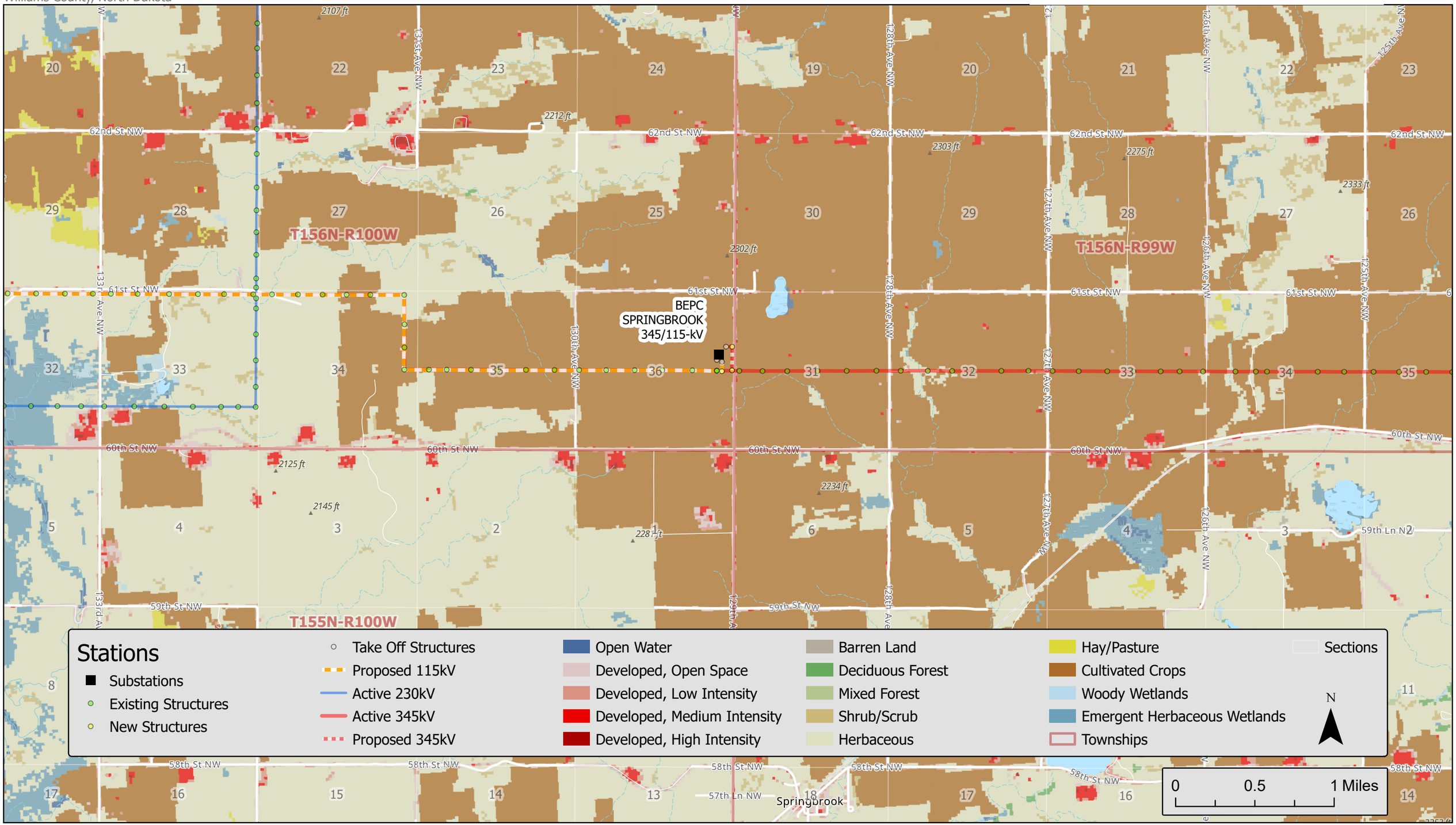

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5.3 Infrastructure/Transportation

5.3.1 Description of Resources

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.3.2 Impacts

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.3.3 Mitigation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.4 Public Health and Safety

5.4.1 Description of Resources

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.4.2 Impacts

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.4.3 Mitigation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.5 Air Quality

5.5.1 Description of Resources

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.5.2 Impacts

As a result of the addition of the Springbrook Substation and associated transmission lines to the Project, additional air emissions would be emitted from construction vehicles and equipment used in the substation construction process. These vehicles and equipment would emit additional hydrocarbons, particulate matter, and carbon dioxide. Air emissions from construction are expected to be minimal and short-term, as these activities are temporary and would involve limited equipment.

5.5.3 Mitigation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.6 Noise

5.6.1 Description of Resources

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.6.2 Impacts

Additional noise impacts during substation and transmission line construction would include temporary increases in noise levels from construction vehicles and equipment onsite and on the surrounding roads. The potential increases in sound due to construction would be temporary in nature and these sources of noise would be removed after construction is complete.

Future sound levels in areas directly adjacent to the proposed Springbrook Substation would potentially be impacted by operation of new substation equipment, particularly noise generated by transformers. In addition, the transformers would have cooling fans that would create noise at various times. Predictive modeling was conducted to determine potential noise levels generated by substation operations.

It is not expected that operation of the Springbrook Substation would cause sound levels that exceed the U.S. Environmental Protection Agencies guidelines at any current residences, provided Basin Electric installs a transformer rated at the modeled noise level of 90 decibels or lower for Institute of Electrical and Electronics Engineers distances. This noise level would be well within the range of noise levels for such equipment.

5.6.3 Mitigation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.7 Visual Impacts

5.7.1 Description of Resources

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.7.2 Impacts

The new substation and transmission line would be an added visual element in the existing landscape. The proposed Springbrook Substation would be constructed approximately 10 miles northeast of the City of Williston. No residences are located within 500 feet of the proposed substation site, but several would likely be within sight of the substation. The new facilities would be considered a compatible component of the visual landscape due to its location along the AVS to Neset line and utility and oil development in the area.

5.7.3 Mitigation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.8 Cultural Resources

5.8.1 Description of Resources

In 2023, Metcalf Archaeological Consultants, Inc. (Metcalf) conducted a Class III cultural resources inventory of the proposed Springbrook Substation location. During the inventory, Metcalf did not identify any cultural resources and recommended a finding of No Significant Site (N.D.C.C § 49-22-09). The North Dakota State Historic Preservation Office (NDSHPO) concurred with the findings. NDSHPO's concurrence letter can be found in **Appendix B**.

5.8.2 Impacts

No impacts to cultural resources are expected as a result of construction of the Springbrook Substation, associated transmission lines, and microwave tower.

5.8.3 Mitigation

No impacts to cultural resources are expected as a result of construction of the Springbrook Substation, associated transmission lines, and microwave tower.

5.9 Recreational Resources

5.9.1 Description of Resources

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.9.2 Impacts

Construction and operation of the proposed Springbrook Substation, associated transmission lines, and microwave tower would potentially result in minor impacts to recreation. Construction of the substation would convert land from agricultural to industrial use, limiting future recreational use of the area. However, as the proposed substation is located on privately owned agricultural land, recreation at this location is likely limited. The closest public park is the Epping/Springbrook Dam and is approximately 3.5 miles southeast of the Springbrook Substation. During construction, noise, ground disturbance, access restrictions, and human activity may impede hunting activities around the substation site. However, following construction, these disturbances would cease and game species would likely return to the vicinity. Only the approximate 19.3 acres developed for the Project additions would be lost for future recreational use. **Figure 5.9-1** displays publicly available recreational opportunities near the proposed substation.

5.9.3 Mitigation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

Figure 5.9-1: Recreational Resources Map

Antelope Valley Station to Neset 345-kV Transmission Project

Basin Electric Power Cooperative
Williams County, North Dakota

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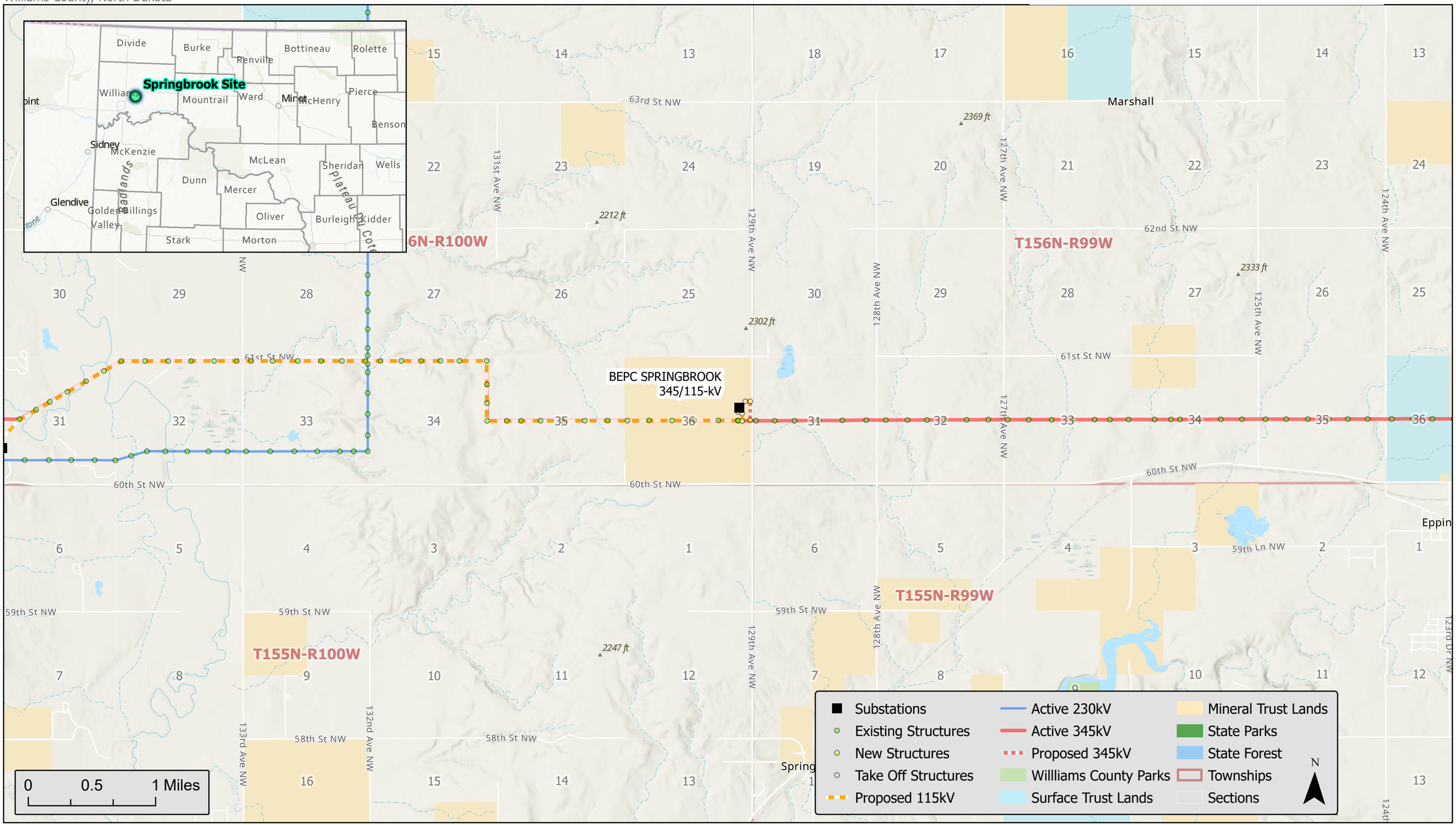

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5.10 Soils and Farmlands

5.10.1 Description of Resources

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.10.2 Impacts

5.10.2.1Soils

Approximately 19.3 additional acres of surface soil will be disturbed for construction of the Springbrook Substation and access roads. Less than 0.01 acres will be permanently disturbed for the additional 345-kV structures. Potential impacts include soil erosion, soil compaction and rutting, and the introduction of noxious weeds on the soil surface. Construction activities such as vegetation clearing, excavating, grading, topsoil segregation, and back-filling may also increase erosion potential by destabilizing the soil surface. Soil compaction and rutting can result from the movement of heavy construction vehicles. The degree of compaction and rutting would depend on the moisture content and texture of the soil. These impacts would be short-term in nature and minimized as much as possible.

Stormwater runoff and erosion control BMPs would be developed for the proposed Project under National Pollutant Discharge Elimination System (NPDES) stormwater pollution prevention plan (SWPPP) permit requirements for construction activities. Typical BMPs that would be part of a SWPPP include, but are not limited to, silt fencing, dust control measures, check dams, erosion control blankets, and seeding of exposed soil surfaces to minimize the potential for wind and water erosion.

5.10.2.2 Farmland

Approximately 19.3 additional acres of crop land would be permanently converted to utility use at the proposed Springbrook Substation site, access roads, and additional 345-kV structure locations.

5.10.2.3 Prime Farmland

No prime farmland occurs within the Project additions area. No prime farmland will be impacted during construction. **Figure 5-10.1** displays the prime and important farmland around the proposed substation.

5.10.3 Mitigation

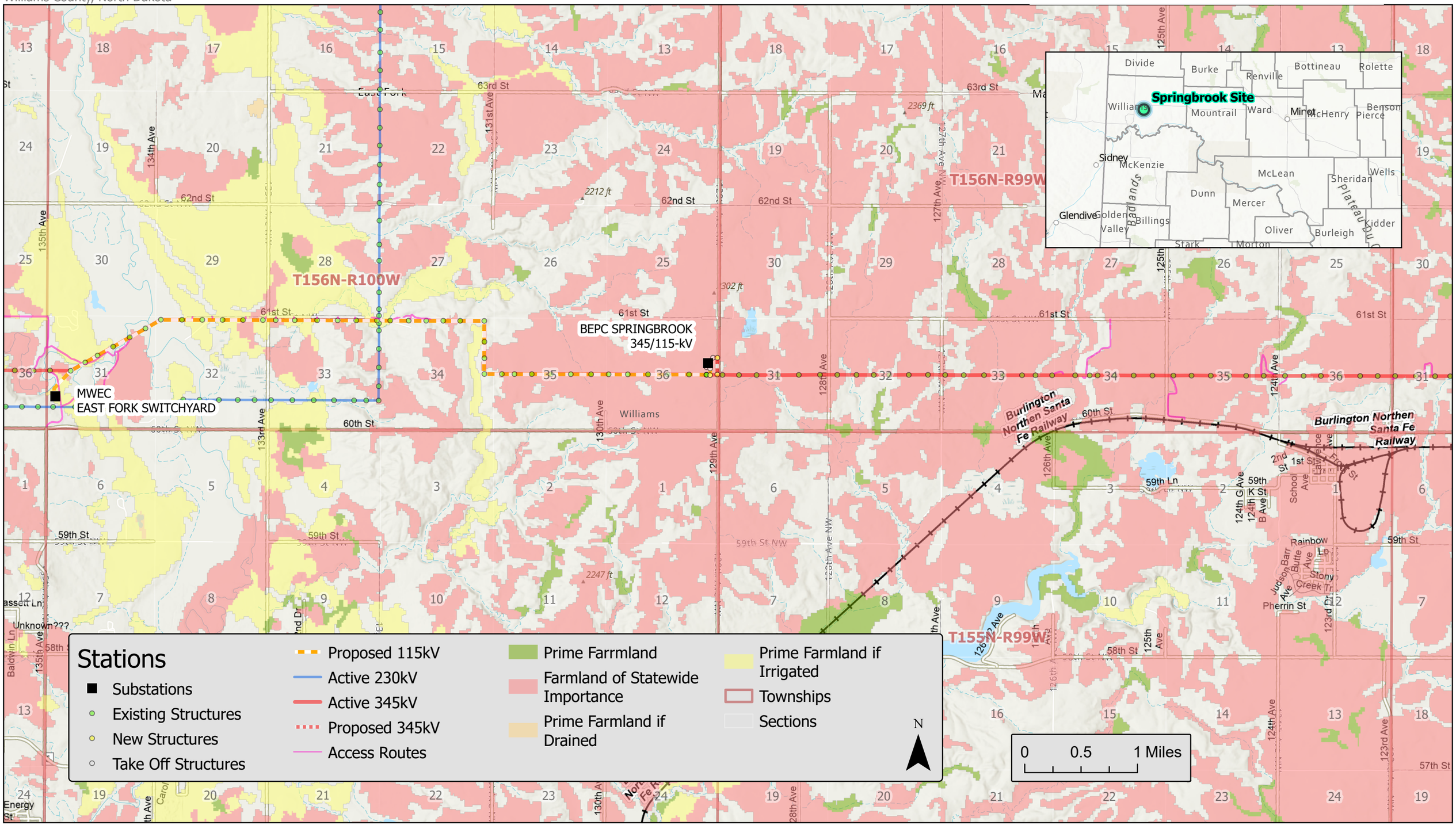
No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

Figure 5.10-1: Prime and Important Farmland Map

Antelope Valley Station to Neset 345-kV Transmission Project

Basin Electric Power Cooperative
Williams County, North Dakota

BASIN ELECTRIC POWER COOPERATIVE
A Touchstone Energy® Cooperative



Folder: J:\gisdata\Projects\Springbrook\PSC_Map\

5.11 Geology and Landforms

5.11.1 Description of Resources

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.11.2 Impacts

Impacts to geologic features, resources, or surface landforms resulting from the construction and operation of the proposed Springbrook Substation, associated transmission lines, and microwave tower are anticipated to be negligible. The substation site is located on terrain with little slope, and impacts to geological resources related to construction and operation of the substation are not anticipated. Some surface grading and subsurface excavation and trenching would be necessary but would be relatively shallow and not expected to encounter significant bedrock.

5.11.3 Mitigation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.12 Water Resources

5.12.1 Description of Resources

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.12.2 Impacts

No impacts to water resources are expected as a result of construction of the proposed substation, associated transmission lines, and microwave tower. No streams or water bodies are present within the substation site, and the substation site is not located within a Federal Emergency Management Agency designated floodplain. No shallow aquifers are located within the Project addition area.

5.12.3 Mitigation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.13 Biological Resources

5.13.1 Description of Resources

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

5.13.2 Impacts

5.13.2.1 Vegetation

All vegetation would be removed within the fenced area of the proposed substation site (approximately 11.9 acres), adjacent graded and bermed area (approximately 6.92 acres), the two access roads (approximately 0.48 acres), and the additional 345-kV structure (approximately 0.01 acres), totaling 19.3 acres. This vegetation removal would be long-term, for the life of the Project.

Temporary vegetation impacts will occur during the construction of the additional 345-kV and 115-kV transmission lines. However, these temporarily impacted areas will return to previous conditions following construction.

5.13.2.2 Wetlands

One wetland will be impacted during the construction of the proposed Springbrook Substation. This wetland is a 0.06-acre emergent, temporary wetland. U.S Army Corps of Engineers Nationwide Permit 57 authorizes the construction of electrical substations in waters of the US, provided constructions does not result in the loss of greater than ½-acre of waters of the US. Further details on wetlands within the area can be found in the Natural Resources Inventory Report (**Appendix C**).

5.13.2.3 Wildlife

Potential impacts to wildlife resulting from construction of the Project additions would include long-term loss of habitat within the 19.3-acre permanent impact footprint. Additionally, some mortality of less mobile or burrowing species may occur during construction activities. Site clearing would occur outside of bird nesting season, or, if clearing needs to be completed during nesting season, a nest survey will be performed prior to construction and appropriate buffers will be implemented. However, the proposed substation site, additional 345-kV locations, and microwave tower location are within a crop field and is currently disturbed each year through tilling, planting, and harvesting. Further details on impacts to wildlife within the area can be found in the Natural Resources Inventory Report (**Appendix C**).

5.13.3 Mitigation

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

6.0 PUBLIC AND AGENCY COORDINATION

Basin Electric contacted key federal, state, and local agencies per Section 69-06-01-05 of the NDAC for assistance in identifying concerns or issues within the Study Area. In addition, each landowner received a letter that detailed information about the Project. Agency correspondence as of September 2024 are included in **Appendix D**.

7.0 POTENTIAL PERMITS/APPROVALS

Basin Electric has obtained a Conditional Use Permit from Williams County for the proposed substation. A Conditional Use Permit for the microwave tower will be submitted and approval is expected prior to construction. Form 854 was also filed with the Federal Communications Commission for the proposed Microwave tower. No permitting was necessary for the additional 345-kV or 115-kV circuits. Basin Electric will obtain county road encroachment permits, if needed, prior to construction.

8.0 FACTORS CONSIDERED

NDCC Section 49-22-09 of the North Dakota Energy Conversion and Transmission Facility Siting Ace lists 11 factors to guide the Commission in evaluation of the sites, corridors, and routes. The follow sections address these factors where applicable to this Project's Corridor/Route revisions.

8.1 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

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

8.2 The Effects of the New Energy Conversion and Transmission Technologies and System Designed to Minimize Adverse Environmental Effects

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

8.3 The Potential for Beneficial Uses of Waste Energy from a Proposed Energy Conversion Facility

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

8.4 Adverse Direct and Indirect Environmental Effects Which Cannot Be Avoided Should the Proposed Site or Route be Designated

Unavoidable impacts are those that would occur after implementation of mitigation measures. In summary, construction and operation of the proposed Project additions would convert an additional 19.3 acres of land from agriculture to utility uses. No other changes to this section were identified.

8.5 Alternatives to the Proposed Site, Corridor, or Route Which are Developed During the Hearing Process and Which Minimize Adverse Effects

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

8.6 Irreversible and Irretrievable Commitments of Natural Resources Should the Proposed Site, Corridor, or Route be Designated

Irreversible resource commitments include damage to a resource that is not recoverable for use by future generations. The small size of the substation, access roads, and additional transmission structure, approximately 19.3 acres, means that there would be minimal irreversible damage to regional natural resources. This would primarily involve the soil and agricultural property use for the substation; restoration after the life of the Project would reduce these potential irreversible impacts.

8.7 The Direct and Indirect Economic Impacts of the Proposed Facility

Section 5.1.2 of the original application includes discussion of the direct and indirect economic impacts of the proposed Project. Furthermore, the Project will provide induced economic benefits to businesses and the surround communities from increased electrical capacity and reliability.

8.8 Existing Plans of the State, Local Government, and Private Entities for Other Developments at of in the Vicinity of the Proposed Site, Corridor, or Route

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

8.9 The Effect of the Proposed Site or Route on Existing Scenic Areas, Historic Sites and Structures, and Paleontological or Archaeological Sites

Section 5.8 discusses the potential effects of the Project additions on cultural resources. A Class III cultural resources inventory of the Project addition area did not identify any cultural resources present. Concurrence from the NDSHPO can be found in **Appendix B**.

8.10 The Effect of the Proposed Site or Route on Areas Which are Unique Because of Biological Wealth or Because They are Habitats for Rare and Endangered Species

Section 5.13 or the original application and this addendum discuss the effects of the Project additions on biological resources, including vegetation, wildlife, wetlands, and special status species. The construction of the Project additions would have no effect on special status species. One, 0.06-acre wetland will be impacted during substation construction.

8.11 Problems Raised by Federal Agencies, Other State Agencies, and Local Entities

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

9.0 QUALIFICATIONS OF CONTRIBUTORS

Table 9.0-1 below details qualifications of contributors to this addendum.

Table 9.0-1: Qualifications of Contributors

Name	Responsibility	Education and Experience
Basin Electric Power Cooperative		
Nathan Miller	Project Manager	B.S. Electrical Engineering Registered Professional Engineer 19 Years of Experience
Bobby Nasset	Supervisor Civil Engineering	B.S. Civil Engineering Registered Professional Engineer 19 Years of Experience
Ryan King	Environmental/Permitting	B.S. Construction Management Master of Natural Resources Management 12 Years of Experience
Shannon Vaira	GIS Analyst	B.A. Geography; Minor in GIS 10 Years of Experience
Nathan Kleyer	Right-of-Way	16 Years of Experience
Metcalf Archaeological Consultants, Inc.		
Damita Engel	Cultural Resources Inventory	B.A. Anthropology Master of Anthropology, Specialization in Cultural Resource Management 31 Years of Experience
Western EcoSystems Technology, Inc.		
Chad Tucker	Natural Resources Inventory	B.S. Wildlife Fisheries Science 19 Years of Experience

10.0 LITERATURE CITED

No changes from the addition of the proposed Springbrook Substation, associated transmission lines, and microwave tower.

11.0 ACRONYMS AND ABBREVIATIONS

AVS	Antelope Valley Station
Basin Electric	Basin Electric Power Cooperative
BMP	Best Management Practice
Commission	North Dakota Public Service Commission
FCC	Federal Communications Commission
GIS	geographic information systems
ICBM	intercontinental ballistic missile
kV	kilovolt
Metcalf	Metcalf Archaeological Consultants, Inc.
MWEC	Mountrail Williams Power Cooperative
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
NDSHPO	North Dakota State Historic Preservation Office
Project	Pioneer to Judson 345-kV Transmission Project
ROD	Record of Decision
ROW	right-of-way
RUS	Rural Utilities Service
SPP	Southwest Power Pool
SWPPP	Storm Water Pollution Prevention Plan
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
NTC	Notice to Construct
USDA	U.S. Department of Agriculture

Appendix A

Southwest Power Pool Notice to Construct

SPP-NTC-210675

SPP
Notification to Construct

July 12, 2022

Mr. Tom Christensen
Basin Electric Power Cooperative
1717 E. Interstate Ave.
Bismarck, ND 58503

RE: Notification to Construct Approved Reliability Network Upgrades

Dear Mr. Christensen,

Pursuant to Section 3.3 of the Southwest Power Pool, Inc. ("SPP") Membership Agreement and Attachments O and Y of the SPP Open Access Transmission Tariff ("OATT"), SPP provides this Notification to Construct ("NTC") directing Basin Electric Power Cooperative ("BEPC"), as the Designated Transmission Owner, to construct the Network Upgrades.

On January 25, 2022, the SPP Board of Directors approved the Network Upgrade(s) listed below to be constructed as part of 2021 ITP.

New Network Upgrades
Previous NTC Number: 210652
Previous NTC Issue Date: 3/11/2022
Project ID: 92113
Project Name: Line - Kummer Ridge - Round Up 345 kV
Need Date for Project: 1/1/2023
Estimated Cost for Project: $78,977,357

Network Upgrade ID: 143588
Network Upgrade Name: Kummer Ridge - Round Up 345 kV
Network Upgrade Description: Build 33.2 mile new 345 kV line from Kummer Ridge to Round Up
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability

SPP-NTC-210675

Network Upgrade Specification: All elements and conductor must meet seasonal rating criteria of 1792/1792/1792/1792 (SN/SE/WN/WE) MVA
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $78,293,357
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: BEPC
Date of Estimated Cost: 5/31/2022

Network Upgrade ID: 143589
Network Upgrade Name: Kummer Ridge 345 kV Terminal Upgrades
Network Upgrade Description: Install terminal equipment at Kummer Ridge substation 345 kV to support a new 345 kV line from Round Up
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: All elements and conductor must meet seasonal rating criteria of 1792/1792/1792/1792 (SN/SE/WN/WE) MVA
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $342,000
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: BEPC
Date of Estimated Cost: 5/31/2022

Network Upgrade ID: 143590
Network Upgrade Name: Round Up 345 kV Terminal Upgrades
Network Upgrade Description: Install terminal equipment at Round Up substation 345 kV to support a new 345 kV line from Kummer Ridge
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: All elements and conductor must meet seasonal rating criteria of 1792/1792/1792/1792 (SN/SE/WN/WE) MVA
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $342,000
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: BEPC
Date of Estimated Cost: 5/31/2022

SPP-NTC-210675

Previous NTC Number: 210652
Previous NTC Issue Date: 3/11/2022
Project ID: 92168
Project Name: Multi - Tande - Finstad - Leland Olds 345 kV
Need Date for Project: 1/1/2023
Estimated Cost for Project: $325,562,264 (this project cost reflects Network Upgrades not included in this NTC)

Network Upgrade ID: 143714
Network Upgrade Name: Finstad - Tande 345 kV New Line
Network Upgrade Description: Build a 48 mile 345 kV line from Finstad to Tande.
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: All elements and conductor must meet seasonal rating criteria of 1792(SE) MVA
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $67,411,405
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: BEPC
Date of Estimated Cost: 5/26/2022

Network Upgrade ID: 144227
Network Upgrade Name: Finstad 115 kV Substation
Network Upgrade Description: Build a new 115 kV Substation with terminal equipment to support a line from Vanhook 115 kV substation.
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: All elements and conductor must meet seasonal rating criteria of 239/239/239/239
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $4,675,697
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: SPP
Date of Estimated Cost: 5/31/2022

SPP-NTC-210675

Network Upgrade ID: 144230
Network Upgrade Name: Finstad 345 kV New Substation
Network Upgrade Description: Build a new 345 kV Substation including 345 kV terminals for lines from Leland Olds 345 kV substation, Tande 345 kV substation and high side terminal equipment for Finstad 345/115 kV Ckt 1 transformer and Finstad 345/115 kV Ckt 2 transformer
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: All elements and conductor must meet seasonal rating criteria of 1792/1792/1792/1792 (SN/SE/WN/WE) MVA
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $18,822,018
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: BEPC
Date of Estimated Cost: 5/31/2022

Network Upgrade ID: 144231
Network Upgrade Name: Finstad Switched Shunt
Network Upgrade Description: Install a switched shunt at Finstad.
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: Switched shunt and supporting elements must be rated for minimum of 25 MVAR
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $385,021
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: BEPC
Date of Estimated Cost: 5/31/2022

Network Upgrade ID: 144233
Network Upgrade Name: Finstad 345/115 kV Ckt 1 Transformer
Network Upgrade Description: Install a 345/115 kV Ckt 1 Transformer at Finstad 345
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr

SPP-NTC-210675

TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: All elements and conductor must meet seasonal rating criteria of 332/415/332/415 (SN/SE/WN/WE) MVA
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $5,315,254
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: BEPC
Date of Estimated Cost: 5/31/2022

Network Upgrade ID: 144235
Network Upgrade Name: Finstad 345/115 kV Ckt 2 Transformer
Network Upgrade Description: Install a 345/115 kV Ckt 2 transformer at Finstad 115 and upgrade any necessary 115 kV terminal equipment.
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: All elements and conductor must meet seasonal rating criteria of 332/415/332/415 (SN/SE/WN/WE) MVA
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $5,315,254
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: BEPC
Date of Estimated Cost: 5/31/2022

Network Upgrade ID: 144236
Network Upgrade Name: Leland Olds - Finstad - 345 kV New Line
Network Upgrade Description: Build a 123 mile 345 kV line from Leland Olds to Finstad.
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: All elements and conductor must meet seasonal rating criteria of 1195/1195/1195/1195 (SN/SE/WN/WE) MVA
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $200,761,539
Cost Allocation of the Network Upgrade: Base Plan

SPP-NTC-210675

Estimated Cost Source: BEPC
Date of Estimated Cost: 5/31/2022

Network Upgrade ID: 144237
Network Upgrade Name: Leland Olds 345 kV Substation
Network Upgrade Description: Build a new 345 kV Substation with terminal equipment to support a new line from Finstad 345 kV substation.
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: All elements and conductor must meet seasonal rating criteria of 1195/1195/1195/1195 (SN/SE/WN/WE) MVA
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $9,277,339
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: SPP
Date of Estimated Cost: 5/31/2022

Network Upgrade ID: 144238
Network Upgrade Name: Tande 345 kV Terminal Equipment
Network Upgrade Description: Install new terminal equipment at Tande to support a new 345 kV line from Finstad. Install a series compensation device at Finstad or Tande.
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: All elements and conductor must meet seasonal rating criteria of 1195/1195/1195/1195 (SN/SE/WN/WE) MVA
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $5,085,047
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: BEPC
Date of Estimated Cost: 5/31/2022

Previous NTC Number: 210652
Previous NTC Issue Date: 3/11/2022

SPP-NTC-210675

Project ID: 92211
Project Name: Multi - NE Williston - Folvag 115 kV - Judson - East Fork - Tande 345 kV
Need Date for Project: 1/1/2023
Estimated Cost for Project: $34,634,441(this project cost reflects Network Upgrades not included in this NTC)

Network Upgrade ID: 144171
Network Upgrade Name: East Fork 345/115 kV Substation
Network Upgrade Description: Bisect the Judson to Tande 345 kV line approximately 18 miles from Judson and build a new 345 kV Substation.
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: AAll 345 kV elements and conductor must meet seasonal rating criteria of 1792/192/1792/1792 (SN/SE/WN/WE) MVA
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $17,766,381
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: BEPC
Date of Estimated Cost: 5/31/2022

Network Upgrade ID: 144198
Network Upgrade Name: East Fork 345/115 kV Transformer
Network Upgrade Description: Install a 345/115 kV Transformer at the new East Fork 345/115 kV Substation.
Network Upgrade Owner: BEPC
MOPC Representative(s): Jason Doerr
TWG Representative(s): Phil Westby
Categorization: Regional Reliability
Network Upgrade Specification: All elements and conductor must meet seasonal rating criteria of 332/415/332/415 (SN/SE/WN/WE) MVA
Network Upgrade Justification: 2021 ITP
Estimated Cost for Network Upgrade (current day dollars): $5,904,650
Cost Allocation of the Network Upgrade: Base Plan
Estimated Cost Source: BEPC
Date of Estimated Cost: 5/31/2022

SPP-NTC-210675

Commitment to Construct
Please provide to SPP a written commitment to construct the Network Upgrade(s) by October 10, 2022, in addition to providing a construction schedule and an updated -20% to +20% cost estimate, NTC Project Estimate, in the Standardized Cost Estimate Reporting Template for the Network Upgrade(s). Failure to provide a sufficient written commitment to construct as required by the SPP OATT could result in the Network Upgrade(s) being assigned to another entity.

Mitigation Plan
The Need Date represents the timing required for the Network Upgrade(s) to address the identified need. Your prompt attention is required for formulation and approval of any necessary mitigation plans for the Network Upgrade(s) included in the Network Upgrade(s) if the Need Date is not feasible. Additionally, if it is anticipated that the completion of any Network Upgrade will be delayed past the Need Date, SPP requires a mitigation plan be filed within 60 days of the determination of expected delays.

Notification of Commercial Operation
Please submit a notification of commercial operation for each listed Network Upgrade to SPP as soon as the Network Upgrade is complete and in-service. Please provide SPP with the actual costs of these Network Upgrades as soon as possible after completion of construction. This will facilitate the timely billing by SPP based on actual costs.

Notification of Progress
On an ongoing basis, please keep SPP advised of any inability on BEPC's part to complete the approved Network Upgrade(s). For project tracking, SPP requires BEPC's to submit status updates of the Network Upgrade(s) quarterly in conjunction with the SPP Board of Directors meetings. However, BEPC shall also advise SPP of any inability to comply with the Project Schedule as soon as the inability becomes apparent.

All terms and conditions of the SPP OATT and the SPP Membership Agreement shall apply to this project(s), and nothing in this letter shall vary such terms and conditions.

Don't hesitate to contact me if you have questions or comments about these requests. Thank you for the important role that you play in maintaining the reliability of our electric grid.

Sincerely,

Antoine Lucas

SPP-NTC-210675

Vice President, Engineering
Phone: (501) 614-3382 • Fax: (501) 482-2022 • alucas@spp.org

cc: Lanny Nickell - SPP
Casey Cathey - SPP
David Kelley - SPP
Jeremy Severson - BEPC
Jason Doerr - BEPC
SPPprojecttracking@spp.org

Appendix B

Cultural Resources Report and NDSHPO Concurrence Letter

MANUSCRIPT DATA RECORD FORM

1. Manuscript Number: [SHPO assigns]
2. SHPO Reference #:
3. Author(s): J. Signe Snortland
4. Title: Basin Electric Power Cooperative: A Class III Inventory of Springbrook Substation, Williams County, North Dakota.
5. Report Date: November 2023
6. Number of Pages: 9
7. Type – I
8. List formally tested or excavated sites (not probes): n/a
9. Acres: 39.9
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*.

County	Township	Range	Section	Study Unit
Williams	156 N	100 W	36	Garrison

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

Cultural Resource Report Information

Report Title: Basin Electric Power Cooperative: A Class III Inventory of Springbrook Substation, Williams County, North Dakota.

Funding/Permitting Agency(s): Basin Electric Power Cooperative

Cultural Resource Firm/Federal Agency/State Agency: Metcalf Archaeological Consultants, Inc.

Report Author: J. Signe Snortland

Principal Investigator (Signature and Title): PI William Bluemle 

Report Date: November 2023

Field Personnel: William Bluemle and Carter Greff

Survey Date(s): August 1, 2023

Location Information and Survey Conditions

County(s): Williams

USGS 7.5' Topographic Quadrangle(s): Spring Brook (1978)

Project Type/Title: Basin Electric Power Cooperative Springbrook Substation

Section: 36 Township: 156 N Range: 100 W

Project Description and Purpose: Basin Electric Power Cooperative proposes to build a new substation near Epping, North Dakota. To the east, the project area borders the west edge of 129th Avenue NW and to the south, an existing overhead power line extends along this half section line. BEPC is applying for a permit from the North Dakota Public Service Commission to construct the project. The Public Service Commission is responsible for ensuring the project complies with state law, *North Dakota Century Code* 49-22-09 – Factors to be considered in evaluating applications and designation of sites, corridors, and routes – 1.i – the effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites. BEPC contracted Metcalf Archaeological Consultants, Inc. to conduct a Class I and Class III cultural resource inventory the 39.9 acres in the project area.

General Project Location (Directions to project area): From the intersection of Highway 85 and Highway 2, go south for 4 miles to 60th Street NW. Go east for 7 miles and turn north on County 11 for ½ mile. The project area is west of County 11, which is also 129th Avenue NW.

APE Area (Acres): 39.9 Number of Acres Surveyed: 39.9

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.

Topography: The general area of the project is in the rolling plains of the Coteau Slope Physiographic Region north of the Missouri River in northwestern North Dakota (Bluemle 2000).

Soils: Soils are sandy loams – Williams-Zahl-Zahill complex (6-9% slopes), Williams-Bowbells loams (0-3% slopes), and Williams-Bowbells loams (3-6% slopes) (Natural Resources Conservation Service, n.d.).

Current and Historical Land Use: Cultivated field

Vegetation (including % visibility): The specific project location is in a flat to gently rolling cultivated field with mid-season small grain crops providing 20-40% ground surface visibility (GSV). Bare ground is visible at the base of row crops, and several areas with sparse crop cover supplement GSV (Figure 2). A cluster of field clearing rock piles lies in the center of the project area (Figure 3). An existing buried gas line extends along east edge of the road ROW between the cultivated field edge and the road.

Environmental Limitations to Survey: None

Surface and/or Minerals Ownership: Private

Other comments:

Background and Survey Information

Historic Plats/Atlases/Sources:

Study Unit: Garrison (Gregg et al. 2021).

Previous Sites within APE[1]: None

Previous Sites outside APE within 1 mile: See Table 1 and Map 1.

Previous Surveys within APE: None

Previous Surveys outside APE within 1 mile: See Table 2 and Map 2.

Date of File Search: July 27, 2023

Survey Methodology (transect intervals):
The inventory conformed to *North Dakota's Guidelines for Cultural Resource Inventories* (SHSND 2020). The inventory employed a pedestrian transect methodology with transects spaced no more than 15 meters apart. This method was used to inventory the entire undertaking's APE.

During the inventory, Archaeologist William Bluemle used a handheld R1 unit to map APE boundaries, took representative digital photographs, and maintained detailed field notes. Copies of all photos, maps, GPS data, and field notes are on file at the Metcalf Bismarck office.

Shovel/Auger Probing Methodology: n/a

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

Area Surveyed (Acres): 39.9

Time Expended (Person Hours): 2

Recommendation:
Archaeologist William Bluemle did not identify any cultural resources in the borrow area APE; therefore, Metcalf recommends a finding of *No Significant Sites (N.D.C.C. § 49-22-09)* for this project.

Other Comments:

References:

Bluemle, J. P.
2000 *The Face of North Dakota* 3rd Edition. Education Series 26. North Dakota Geological Survey. Bismarck, North Dakota.

Gregg, Michael L., Amy C Bleier, and Fern E. Swenson
2021 *The Garrison Study Unit, In The North Dakota Comprehensive Plan for Historic Preservation:* https://www.history.nd.gov/hp/PDFinfo/6_GarrisonStudyUnit.pdf, accessed October 30, 2023.

Natural Resource Conservation Service
n.d. Web soil survey https://websoilsurvey.nrcs.usda.gov/app/, accessed October 31, 2023.

State Historical Society of North Dakota
2020 *North Dakota SHPO Guidelines Manual for Cultural Resource Inventory Projects.* Electronic document (Revised Edition: updated 2020), http://history.nd.gov/hp/PDFinfo/North-Dakota-SHPO-Guidelines-Manual-for-Cultural-Resource-Inventory-Projects.pdf, accessed May 2023.

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
Project Overview Photograph(s) Showing Field Conditions

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.

December 21, 2023

Damita Engel
Metcalf Archaeological Consultants
PO Box 2154
Bismarck, ND 58502

SHSND Ref: 24-9006 Springbrook Substation in portions of [T156N R100W Section 36] in Williams County, North Dakota

Dear Damita,

From your submission on behalf of Basin Electric Power Cooperative, it is our understanding that SHSND Ref: 24-9006 Springbrook Substation involves construction of a new substation with connection to an existing overhead power line. Therefore, it is our determination that there are no significant sites affected by this project provided it 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 Preservation Specialist at lbmeidinger@nd.gov or (701) 328-2089.

Sincerely,

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

24-9006

Appendix C

Natural Resources Inventory Report

Springbrook Substation Project
Williams County, North Dakota

Natural Resources Inventory Report

Prepared for:

Basin Electric Power Cooperative

1717 East Interstate Avenue
Bismarck, North Dakota 58503

Prepared by:

Chad Tucker

Western EcoSystems Technology, Inc.
4007 State Street, Suite 109
Bismarck, North Dakota 58503
Phone: (307) 772-1083

January 16, 2024

WEST

STUDY PARTICIPANTS

Chad Tucker	Project Manager, GIS Technician

REPORT REFERENCE

Tucker, C. 2023. Springbrook Substation Project, Williams County, North Dakota: Natural Resources Inventory Report. Prepared by Western EcoSystems Technology, Inc. (WEST), Bismarck, North Dakota. January 16, 2024.

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
ac	acre
BEPC	Basin Electric Power Cooperative
cm	centimeter
DBH	diameter at breast height
ESA	Endangered Species Act
FR	Federal Register
ft	foot
ha	hectare
in.	inch
IPaC	Information for Planning and Consultation
km	kilometer
m	meter
mi	mile
N	north
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
PEMA	Palustrine emergent temporarily flooded
Pf	palustrine farmed wetland
PLSS	Public Land Survey System
R	Range
Sec.	Section
Survey Area	40.0 acres
T	Township
USACE	US Army Corps of Engineers
USDA	US Department of Agriculture
USEPA	US Environmental Protection Agency
USFS	US Forest Service
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
W	west
WEST	Western EcoSystems Technology, Inc.
WNS	white nose syndrome

1.0 INTRODUCTION

Basin Electric Power Cooperative (BEPC) proposes to construct and operate the Springbrook Substation Project (Project). Western Ecosystems Technology, Inc. (WEST), was retained by BEPC to provide natural resources inventory services, which include the identification of waterbody/wetland boundaries, an evaluation of habitat for federally listed species, a noxious weed inventory, a woody vegetation inventory, and a line-of-sight raptor nest survey. The proposed Project is located within the NE¼ of Section 36, Township (T) 156 North (N), Range (R) 100 West (W) of Williams County, North Dakota. The Project would be approximately 12 miles (mi; 19 kilometers [km]) northeast of the city of Williston (Figure 1).

The natural resources discussed in this report are those within the Project's Survey Area, as shown on Figure 1 and Figure 2. The Survey Area is 1,320 feet (ft; 402 meters [m]) wide by 1,320 ft wide and contains approximately 40.0 acres (ac; 16.2 hectares [ha]). WEST biologists performed the field surveys on July 31, 2023. Geospatial field data was collected using an Android tablet paired with an EOS ARROW Lite Global Positioning System unit capable of recording data to sub-meter accuracy.

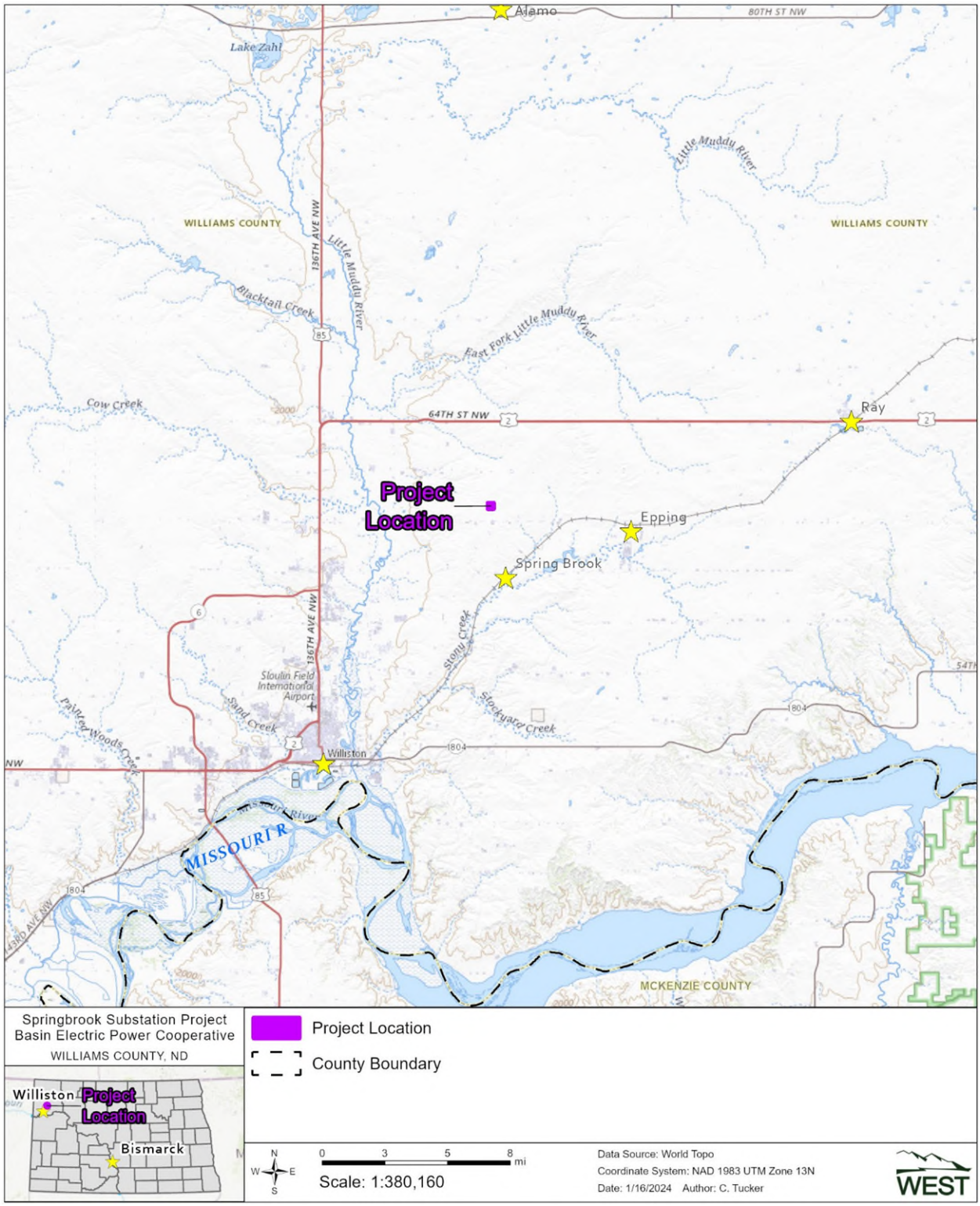


Figure 1. Location of the proposed Springbrook Substation Project in Williams County, North Dakota.

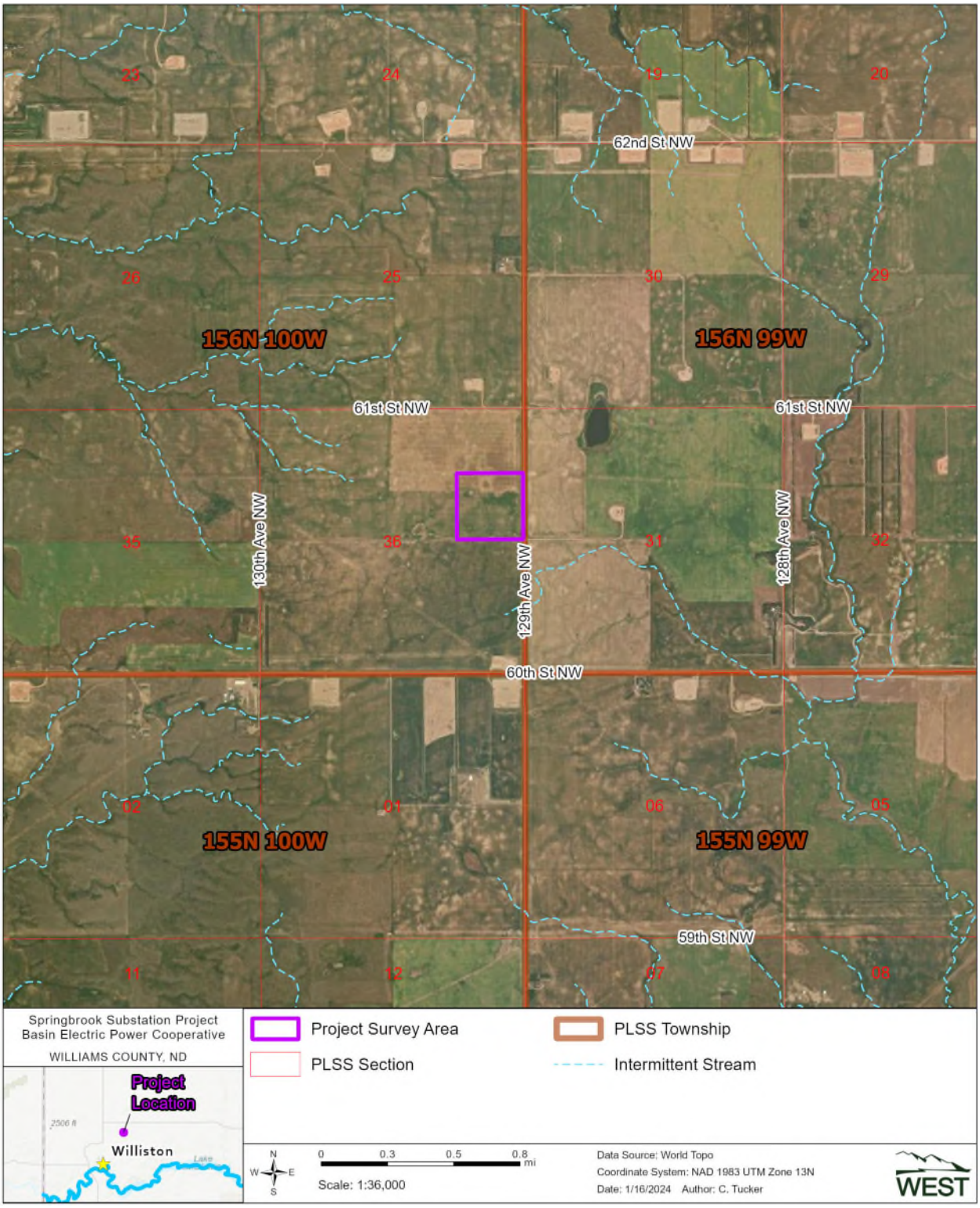


Figure 2. Detailed view of the proposed Springbrook Substation Project.

2.0 PROCEDURES

2.1 Wetland and Waterbody Field Determination

Wetland identification utilized the presence of hydrophytic vegetation and landscape hydrology and/or topographic position. Waterbody boundaries were recorded utilizing the criteria and definitions provided by the US Army Corps of Engineers (USACE) Ordinary High Water Mark criteria and definitions provided by the US Environmental Protection Agency (USEPA) in *Draft Guidance on Identifying Waters Protected by the Clean Water Act* (USEPA and USACE 2011). Wetlands and waterbodies were field classified in accordance with guidelines set forth in the *Classification of Wetlands and Deepwater Habitats of the United States* by the Federal Geographic Data Committee (2013). The following resources were reviewed prior to the wetland field determination to aid in identifying potential wetlands with the Survey Area. Williams County National Agriculture Imagery Program aerial photographs (US Geological Survey [USGS] 2023); US Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI; USFWS NWI 2021); USGS National Hydrography Dataset (NHD; USGS 2023); and the US Department of Agriculture Natural Resources Conservation Service (USDA NRCS) digital Web Soil Survey (USDA NRCS 2023). The vegetation within the area surveyed was characterized using the hydrophytic criteria as outlined in the *National Wetland Plant List* (USACE 2020). Soil data was not collected.

2.2 Federally Listed Wildlife Species Evaluation

The USFWS Information for Planning Consultation (IPaC) site was used to review federally listed species within the Survey Area and Williams County (USFWS 2023a). The review also included the USFWS designated critical habitat for threatened and endangered species geospatial data (2023b), along with known range, reported occurrences, and habitat needs for each species. Table 1 identifies the federally listed species with the potential for occurrence within the Survey Area. Field evaluations were conducted on July 31, 2023 to confirm the presence or absence of potentially suitable habitat for federally listed species within the Survey Area. Background data was collected for preliminary review and to aid in the field inventory of biological resources.

Table 1. Federally listed threatened and endangered species.

Common Name	Scientific Name	Status
Northern long-eared bat	*Myotis septentrionalis*	Endangered
Whooping crane	*Grus americana*	Endangered
Dakota skipper*	*Hesperia dacotae*	Threatened, Critical Habitat Designated
Piping plover	*Charadrius melodus*	Threatened, Critical Habitat Designated
Red knot (rufa)	*Calidris canutus rufa*	Threatened
Monarch butterfly	*Danaus plexippus*	Candidate

* This species is listed as occurring in Williams County; however, the Project is outside of the current known species range.

Source: US Fish and Wildlife Service 2023a, 2023b

2.3 Nesting Raptor Survey

A 0.5-mi (0.8-km) line-of-sight survey for nesting raptors was conducted for the Project. The survey used 10x power magnification binoculars to scan tree lines and wooded areas from either the Survey Area or public roads.

2.4 Noxious Weed Inventory

North Dakota has 13 state-listed noxious weed species. The Williams County Weed Control District lists one additional species as invasive (North Dakota Department of Agriculture 2023). Table 2 provides a list of noxious and/or invasive weed species listed for the Project.

Table 2. North Dakota State and Williams County listed noxious and invasive weeds.

North Dakota State Listed Noxious Weeds		Williams County Invasive Weeds	
Common Name	**Scientific Name**	**Common Name**	**Scientific Name**
Absinth wormwood	*Aremisia absinthium*	Narrowleaf hawksbeard	*Crepis tectorum*
Canada thistle	*Cirsium arvense*		
Dalmatian toadflax	*Linaria genistifolia*		
Diffuse knapweed	*Centaurea diffusa*		
Houndstongue	*Cynoglossum officinale*		
leafy spurge	*Euphorbia esula*		
Musk thistle	*Carduus nutans*		
Palmer amaranth	*Amaranthus palmeri*		
Purple loosestrife	*Lythrum salicaria*		
Russian knapweed	*Acroptilon repens*		
saltcedar	*Tamarix chinensis*		
Spotted knapweed	*Centaurea maculosa*		
Yellow toadflax	*Linaria vulgaris*		

2.5 Woody Vegetation (Tree and Shrub) Inventory

The tree and shrub inventory utilized a methodology previously approved by the North Dakota Public Service Commission. Trees and shrubs were recorded within the Survey Area that could potentially be cleared by the Project, including those that are considered non-native species. The location, number, and species of each tree and shrub were documented for this inventory. The trees and shrubs were enumerated by one of two methods: individual count; or by inference utilizing a representative subsample plot to count and then extrapolate the number of individuals or stems based upon the area within the Survey Area.

3.0 RESULTS

3.1 Wetlands

A pre-survey review of the USFWS NWI database identified three palustrine farmed (Pf) wetlands (USFWS NWI 2023). The field survey identified three wetlands, covering 0.16 ac (0.06 ha) combined. The identified wetlands are isolated natural depressions with a palustrine emergent temporarily flooded (PEMA) classification. Additionally, one of the Pf classified NWI signatures was found to not exhibit wetland hydrology or contain hydric vegetation. An upland point (Upland

Point 1) was recorded at this site. Wetland information is summarized in Table 3 and point locations are identified below in Figure 3. Photographs of the Survey Area are included in Appendix A.

Table 3. Wetlands documented within the Survey Area

Name	Classification	Type	PLSS	Latitude	Longitude	Acres
Wetland 1	PEMA	Depression	Sec. 36, T156N, R100W	48.292297	-103.477535	0.04
Wetland 2	PEMA	Depression	Sec. 36, T156N, R100W	48.292491	-103.479178	0.06
Wetland 3	PEMA	Depression	Sec. 36, T156N, R100W	48.294460	-103.479051	0.06
					Total	**0.16**

N = north, PEMA = palustrine emergent temporarily flooded wetland, PLSS = Public Land Survey System, R = Range, Sec. = Section, T = Township, W = west**.**

3.2 Waterbodies

The pre-survey review of the USFWS NWI and the USGS NHD databases indicated that there are no waterbodies within the Survey Area and the field survey did not identify any features.

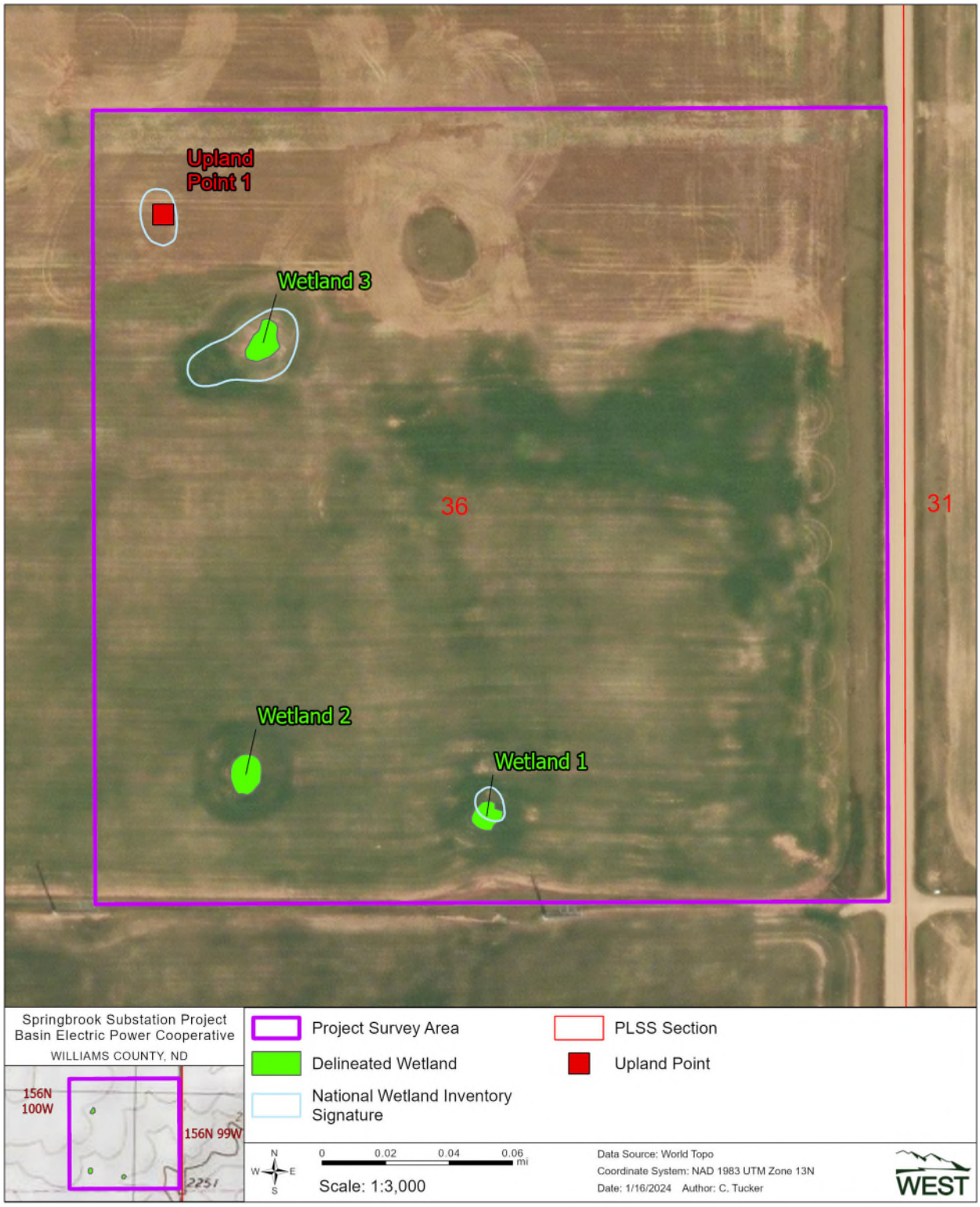


Figure 3. Result of the wetland and waterbody field survey.

3.3 Threatened and Endangered Species Habitat Assessment

Threatened and endangered species that have been documented and/or have the potential to occur within the Survey Area are listed in Table 1 along with designated critical habitat (USFWS 2023a, 2023b). A review of USFWS species information datasets, along with habitat data gathered from the field surveys, were used to aid in the determinations. Threatened and endangered species information gathered from the review is documented below in the species discussions.

During the field surveys, no federally listed species were observed and no potential habitat for listed species was documented during the field survey.

3.3.1 Northern Long-eared Bat

The northern long-eared bat (*Myotis septentrionalis*) is a forest-dwelling mammal. The home range of the northern long-eared bat is approximately 150 ac (61 ha), including a summer and winter habitat. In the summer, northern long-eared bats roost under bark or in crevices of trees, preferring to roost in tall trees greater than three inches (in.; eight centimeters [cm]) diameter at breast height (DBH), and under the exfoliating bark of dead or dying trees. In the winter, northern long-eared bats hibernate in caves and mines. The northern long-eared bat prefers foraging in edge habitats and forests comprising trees with a diversity of life stages (USFWS 2014a).

Occurrences of the northern long-eared bat are uncertain in North Dakota. White-nose syndrome (WNS) currently remains the predominant threat to the northern long-eared bat. North Dakota is included in the current extent of WNS zone per the Final Rule (88 Federal Register [FR] 4908 [January 26, 2023]; USFWS 2023c). With the Final Rule reclassifying the northern long-eared bat as endangered, incidental take of the species is prohibited. To avoid incidental take, it is recommended to conduct tree clearing activities between November 1 to March 31 when bats have either migrated or are hibernating underground caves.

The field survey documented that the Survey Area does not contain any potential roosting trees or hibernacula.

3.3.2 Whooping Crane

The primary nesting area for the whooping crane (*Grus americana*) is in Canada's Wood Buffalo National Park. Aransas National Wildlife Refuge in Texas is the primary wintering area for whooping cranes. In the spring and fall, the cranes migrate, primarily along the Central Flyway. During the migration, whooping cranes make numerous stops, roosting in relatively large, shallow marshes and feeding and loafing in harvested grain fields. The primary threats to whooping cranes are power lines, illegal hunting, and habitat loss.

The whooping crane is federally listed and has the potential to occur in all counties of North Dakota. The Project is located within the migration corridor where 75-95% of whooping cranes travel. Land use within the Project is a mixture of cropland and rangeland, and oil/gas development. The USFWS Database (USFWS 2022) shows Williams County has had 29 verified whooping crane sightings. The closest confirmed sighting to the Project was of four adult whooping cranes in 1979, approximately 9.5

mi (15.3 km) northwest of the Project in Sec. 28, T157N, R100W. The sighting locations are depicted on Figure 4.

Noise and vehicle activity during construction activities may cause migratory cranes to divert from the area but would be unlikely to contribute to any indirect or direct effect that would result in an increase of fatalities and, therefore, would be considered insignificant. If a crane is sighted within 1.0 mi (1.6 km) of the project area, construction activities utilizing heavy equipment would be suspended, and the sighting would be promptly reported to the USFWS. In coordination with the USFWS, suspended activities would resume once the bird(s) have left the area. Appendix B contains BEPC's Avian and Bat Protection Plan.

3.3.3 Dakota Skipper

The Dakota skipper (*Hesperia dacotae*), a prairie obligate species, requires nectar-producing native flowers and native grasses. Historically, Dakota skippers have been associated with relatively low, wet, prairie-dominated, high-quality, tall grass prairie habitat (Type A habitat). Researchers have found that Dakota skippers also use upland mixed grass prairie that is relatively dry and includes ridges and hillsides (Type B habitat; USFWS 2013a). These habitats often have small inclusions of areas with species more commonly typified with tall grass prairie. Larvae require grass components of mixed-grass prairie that include bluestem grasses (*Andropogon* spp.) and needlegrasses, while adults require nectar sources; therefore, suitable prairie must include nectar-producing forbs. These forbs may include purple coneflower (*Echinacea purpurea*), blue bells (*Campanula rotundifolia*), blanket flower (*Gaillardia aristata*), wood lily (*Lilium philadelphicum*), or other species that are in bloom during the adult life cycle of the Dakota skipper (Dana 1991).

Suitable habitat is defined as native grassland that contains one or more primary constituent elements for the skipper to complete its entire life cycle, including breeding, feeding/foraging, and sheltering behaviors. Dispersal habitat is defined as grassland lacking primary constituent elements needed to complete the entire Dakota skipper life cycle. Grassland was defined as dispersal habitat if it lacked forbs and bunchgrasses. Unsuitable habitat includes everything that does not fit into the above groups and would include cultivated lands, wooded areas, wetlands, and streams (USFWS 2014c)

The nearest USFWS designated critical habitat for the Dakota skipper is located approximately 26 mi (42 km) southeast of the Project (Figure 4).The species is known to occur in Williams County; however, the Project is located approximately two miles outside of the USFWS's known range of the Dakota skipper (USFWS 2023a). The USFWS range is the official legal definition for the species' extent.

The field survey documented that the Survey Area is used for row crop agriculture and suitable habitat and/or foraging habitat is not present.

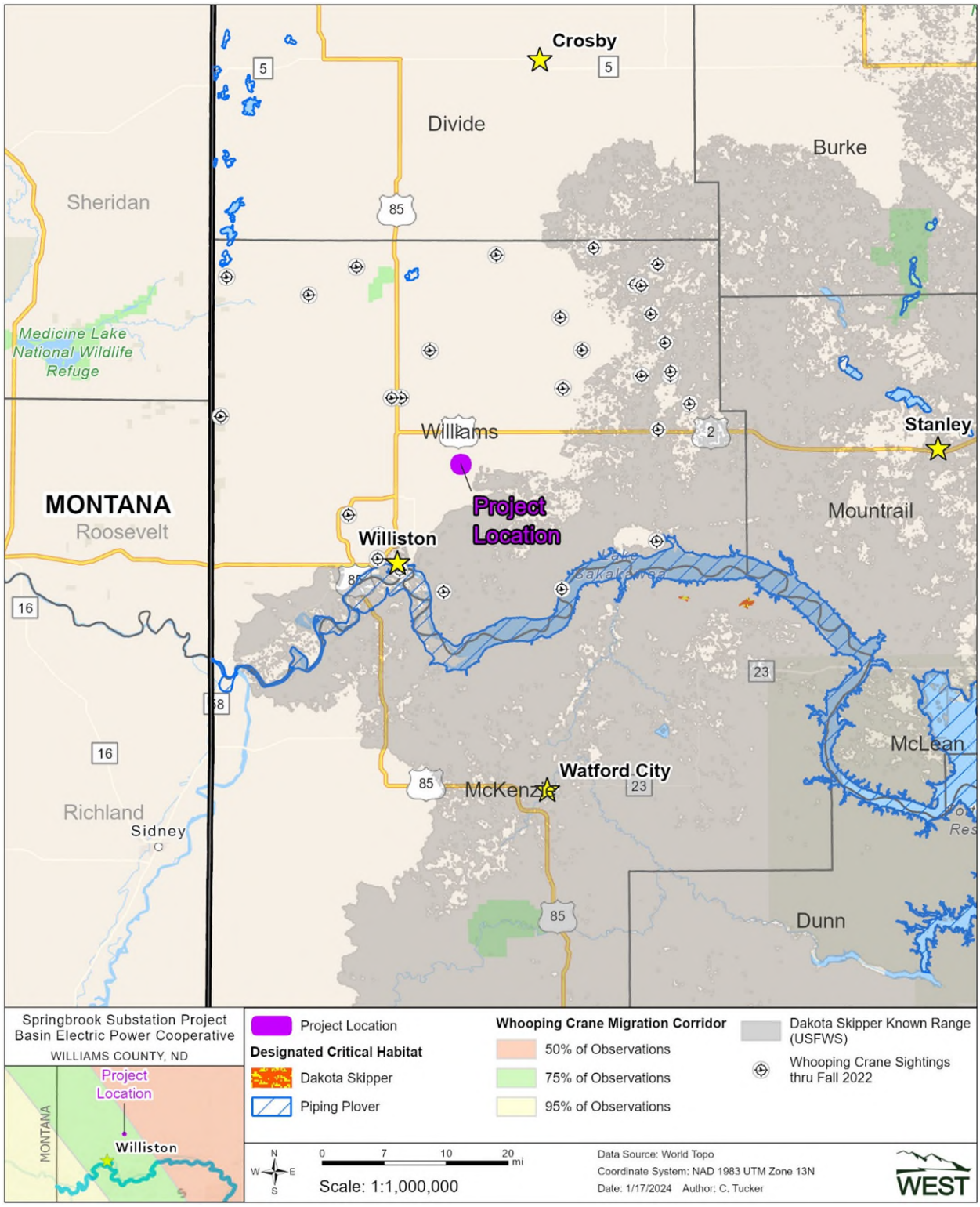


Figure 4. Known sightings, species range, and designated critical habitats in relation to the proposed Springbrook Substation.

3.3.4 Piping Plover

The piping plover (*Charadrius melodus*) is a migratory shorebird that breeds in North Dakota. Suitable nesting habitat for piping plovers includes alkaline wetlands and the shoreline of the Missouri River system; this habitat has been characterized as sparsely vegetated channel sandbars, sand and gravel beaches on islands, temporary pools on sandbars and islands, and island margins that interface with the river channel. The piping plover feeds on worms, insects, and mollusks. The decline of piping plover populations is due to the loss of habitat from river impoundment(s), as well as the degradation of habitat related to the channelization river systems, nest predation, and human disturbance (USFWS 1985).

Critical habitat for the Northern Great Plains piping plover has been designated on alkali lakes and wetlands, the Yellowstone River, and Missouri River in North Dakota. The physical and biological features that are essential to the conservation of the species, referred to as the primary constituent elements, require special consideration for protection. These include sparsely vegetated alkaline wetlands, sand and gravel beaches on islands, temporary pools on sandbars and islands, and island margins that interface with the river channel. This Project is approximately 11.5 mi (18.5 km) north of the nearest critical habitat, which is the Missouri River system. (Figure 4; USFWS 2023b). The field survey documented that the Survey Area is predominantly cropland and contains wetlands that are well vegetated and do not provide bare ground suitable for nesting habitat.

3.3.5 Rufa Red Knot

The red knot (*Calidris canutus*) is a shorebird that breeds in the central Canadian Arctic, with primary breeding grounds in Nunavut Territory, but some potential breeding habitat extending into the Northwest Territories (USFWS 2013b). The rufa red knot (*C, canutus rufa*) winters along the Atlantic coasts of Argentina and Chile (particularly the island of Tierra del Fuego), the north coast of Brazil, and further north into Mexico and the southeast United States (USFWS 2014b). During migration, the rufa red knot primarily follows the Atlantic coastline to and from breeding and wintering grounds. However, geolocator results from red knots wintering in Texas showed that a comparatively small population of birds migrate using the Central Flyway across the Midwestern US and may have a northern Great Plains stopover (USFWS 2013b). Rufa red knots spend two to three months annually on the breeding grounds located in northern Canada.

Red knots are specialized molluscivores, feeding primarily on hard-shelled mollusks in relatively soft, wet sand/sediment (USFWS 2014b). In addition to mollusks, red knots may feed upon shrimp, crabs, marine worms, horseshoe crab (*Limulus* spp.) eggs, and other similar invertebrates. On the breeding grounds, rufa red knots feed mostly on terrestrial invertebrates and grass shoots/seeds (USFWS 2013b).

The shoreline of the Missouri River provides stopover habitat for red knots utilizing a midcontinental migratory route during annual migrations. However, the species is rare and is not reported in North Dakota every year. Reported historical sightings since 1900 (Igl 2015) are primarily composed of single individuals or relatively small flocks; however, on rare occasions, larger flocks have been reported. Many of these sightings have been made in the prairie pothole

region during the spring migration in late April through May. An increase in future sightings may result from an increase in public awareness.

The red knot migrates twice annually from its breeding grounds in the Artic to wintering habitat in southern climates. It does not nest in North Dakota but may use areas along the Missouri River as stopover habitat. The Project is located approximately 11.5 mi (18.5 km) north of the Missouri River system and the Survey Area does not have suitable shoreline stopover habitat for the rufa red knot.

3.3.6 Monarch Butterfly

The monarch butterfly (*Danaus plexippus*) is currently a candidate for listing under the Endangered Species Act (ESA), and a listing decision is currently anticipated in 2024. Candidate species do not receive statutory protections under the ESA, but are reevaluated annually for listing priority, and, therefore, are likely to be listed in the future.

The species occurs throughout the Great Plains and much of North America. Monarchs prefer open habitats with flowering plants and lay their eggs exclusively on milkweeds (*Asclepias* spp.), which the larvae feed on until pupation (U.S. Forest Service [USFS] 2021). Monarch butterflies will breed in North Dakota during the summer and migrate south to Mexico for the winter; eventually, the butterflies will make their way back to North Dakota during spring migration. Suitable habitat, including wetlands, roadsides with common milkweed, and upland grassland habitat with flowering species, was observed during the field survey. The Survey Area is used for row crop agriculture and is unlikely to provide usable habitat for the monarch butterfly.

3.4 Nesting Raptor Survey

No active raptor nests were observed within 0.5-mi (0.8-km) of the Survey Area

3.5 Noxious Weed Inventory

A pedestrian survey of the Survey Area was conducted for state and county listed noxious weeds. Noxious weeds were not observed during the field survey.

3.6 Tree and Shrub Inventory

No trees or shrubs were documented during the field survey.

4.0 LITERATURE CITED

Dana, R. 1991. Conservation Management of the Prairie Skippers *Hesperia dacotae* and *Hesperia ottoe*. University of Minnesota. Station Bulletin 594-1991 (AD-SB=5511-S). Minnesota Agricultural Experiment Station. 74 pp.

Esri. 2023. World Imagery and Aerial Photos (World Topo). ArcGIS Resource Center. Environmental Systems Research Institute (Esri), producers of ArcGIS software, Redlands, California. Accessed June 2023. Available online: https://www.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=10df2279f9684e4a9f6a7f08febac2a9

Federal Geographic Data Committee (FGDC). 2013. Classification of Wetlands and Deep-Water Habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, FGDC and US Fish and Wildlife Service, Washington, D.C.

Igl, L. 2015. Observations of Red Knots in North Dakota, List of records of Red Knots in North Dakota since the early 1900's. U.S. Geological Survey Northern Prairie Research Center. Jamestown, North Dakota. 3 pp.

North Dakota Department of Agriculture (NDDA). 2023. Noxious Weeds. Accessed June 2023. Available online: https://www.ndda.nd.gov/divisions/plant-industries/noxious-weeds

North Dakota Game and Fish Department. 2023. Personal communication with Conservation Biologist, Patrick Isakson. May 12, 2023.

US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). 2023. Web Soil Survey of Williams County, North Dakota. USDA NRCS, Washington, D.C. Accessed June 2023. Available online: http://websoilsurvey.sc.egov.usda.gov/app/

US Environmental Protection Agency (USEPA) and US Army Corp of Engineers (USACE). 2011. Draft Guidance on Identifying Waters Protected by the Clean Water Act. April 2011.

US Fish and Wildlife Service (USFWS). 1985. Endangered and Threatened Wildlife and Plants; Determination of Endangered and Threatened Status for Piping Plover; Final Rule. Department of the Interior Fish and Wildlife Service. 50 Federal Register 50726. December 11, 1985.

———. 2013a. Endangered and Threatened Wildlife and Plants; Threatened Status for Dakota Skipper and Endangered Status for Poweshiek Skipperling; Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Dakota Skipper and Poweshiek Skipperling; Proposed Rules. Department of Interior Fish and Wildlife Service. 50 CFR Part 17. 78 Federal Register 63574. October 24, 2013.

———. 2013b. Endangered and Threatened Wildlife and Plants; Proposed Threatened Status for the Rufa Red Knot (*Calidris canutus rufa*). Proposed Rule. Department of the Interior Fish and Wildlife Service. 78 Federal Register 60024. September 30, 2013.

———. 2014a. Northern Long-Eared Bat Interim Conference and Planning Guidance. USFWS Regions 2, 3, 4, 5, and 6. January 6, 2014. Available online: https://efiling.web.commerce.state.mn.us/edockets/searchDocuments.do?method=showPoup&documentId={3AC05753-A500-4D07-B26F-7F0CA662CA8E}&documentTitle=20177-133472-02

———. 2014b. Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Rufa Red Knot; Final Rule. 50 CFR Part 17. Department of the Interior Fish and Wildlife Service. 79 Federal Register 73706. December 11, 2014.

———. 2014c. Endangered and Threatened Wildlife and Plants; Threatened Species Status for Dakota Skipper and Endangered Species Status for Powershiek Skipperline: Final Rule. Department of the Interior Fish and Wildlife Service. Federal Register 79L63672-63748.

———. 2022. Confirmed whooping crane sightings in the Central Flyway through fall migration 2022. Unpublished data from the Cooperative Whooping Crane Tracking Project database. Nebraska Field Office, USFWS, Grand Island, Nebraska.

———. 2023a. Initial Project Scoping: IPaC - Information for Planning and Consultation. IPaC, Environmental Conservation Online System (ECOS), USFWS. Accessed June 2023. Available online: https://ipac.ecosphere.fws.gov/

———. 2023b. Critical Habitat for Threatened & Endangered Species. Critical Habitat Portal metadata, USFWS. Updated June 2, 2023. Available online: https://ecos.fws.gov/ecp/report/table/critical-habitat.html

———. 2023c. Endangered and Threatened Wildlife and Plants: Endangered Species Status for Northern Long-Eared Bat: Delay of Effective Date. Department of Interior Fish and Wildlife Service. 50 CFR Part 17. 88 Federal Register 4908. January 26, 2023. Available online: https://www.govinfo.gov/content/pkg/FR-2023-01-26/pdf/2023-01656.pdf

———. Whooping Crane (*Grus americana*). Species Profile. USFWS Environmental Conservation Online System (ECOS). Accessed June 2023. Available online: https://ecos.fws.gov/ecp/species/758

———. 2021. National Wetlands Inventory (NWI). National Wetlands Inventory Data Mapper. USFWS NWI Fort Snelling, Minnesota. Updated November 31, 2021. Accessed April 2023. Available online: https://www.fws.gov/wetlands/Data/Mapper.html

U.S. Forest Service (USFS). 2021. Monarch Butterfly Habitat Needs. U.S.Department of Agriculture, USFS, Washington D.C. Accessed May 2022. Available online: https://www.fs.fed.us/wildflowers/pollinators/Monarch_Butterfly/habitat/

US Geological Survey (USGS). 2023. The National Map. TNM Download V2.0. Topo Map data, 3DEP products, Lidar, IfSAR, NHD (Hydrography Dataset), NAIP Plus Imagery, National Structures Dataset. Accessed April 2023. Available online: https://apps.nationalmap.gov/downloader/#/

Appendix A. Project Field Photographs

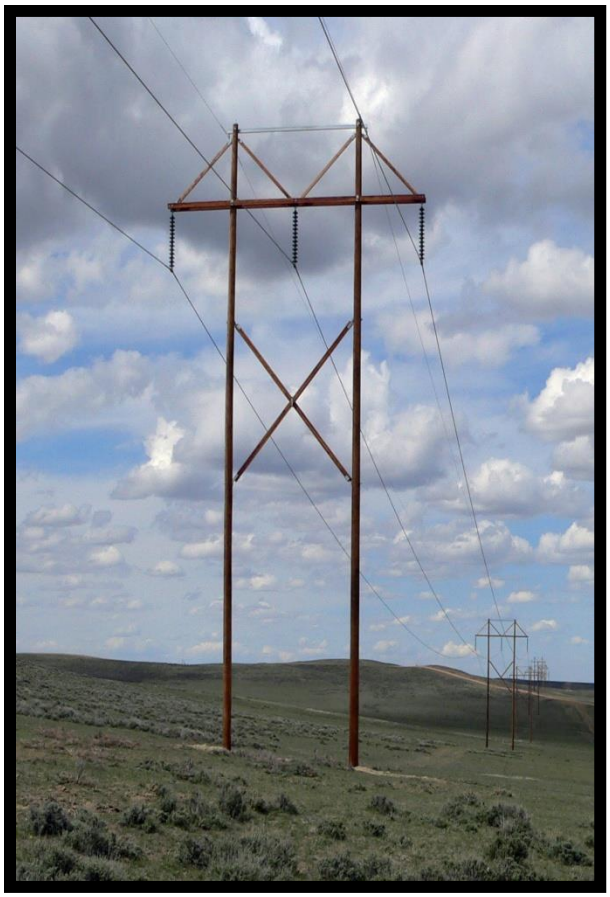
Photograph 1. View looking west across Wetland 1, a PEMA classified wetland. This wetland has been partially field with rocks and farmed through.

Photograph 2. View looking west across Wetland 1, a PEMA classified wetland. This wetland has also been partially field with rocks and farmed through

Photograph 3. View looking across Wetland 3. Wetland 3 is a farmed through PEMA classified wetland. The crop (wheat) displayed water stress and wheel ruts were present, indicating saturated soils during planting season.

Appendix B. Basin Electric Power Cooperative Avian and Bat Protection Plan

Basin Electric Power Cooperative Avian and Bat Protection Plan (ABPP)



BASIN ELECTRIC POWER COOPERATIVE

A Touchstone Energy® Cooperative

Adoption and Approval of Basin Electric Power Cooperative's Avian and Bat Protection Plan

This plan is hereby adopted and approved.

By: _____
Todd Brickhouse, Interim CEO and General Manager
Basin Electric Power Cooperative

Date: October 12, 2023

Version	Date Issued	Date Effective	Changes or Additions	Owner's Initials
1.0	04/05/2013	05/01/2013	Original	ENFD
2.0	08/26/2022	09/01/2022	Updated Forms	ENFD
3.0	10/2/2023	10/9/2023	Updated Forms	ENFD

Table of Contents

1.0 Introduction

Basin Electric Power Cooperative (Basin Electric) is one of the largest electric generation and transmission (G & T) cooperatives in the United States. Basin Electric, along with its subsidiaries, has long promoted the balance between environmental responsibility and providing affordable electricity to its members. This balance is a consideration during all activities of Basin Electric including but not limited to the generation of electricity, developing, siting and building new projects, expansion and updating of current facilities, and building and maintaining transmission lines.

Basin Electric recognizes that necessary operations may impact the environment, including avian and bat species. Basin Electric has developed this Avian and Bat Protection Plan (ABPP) with the overall goal of minimizing avian and bat mortality. This ABPP attempts to identify and potentially remedy situations where negative impacts to avian and bat species may occur. In addition, it provides guiding principles for Basin Electric project developers to build mechanisms to minimize potential impacts to avian and bat species into projects. This ABPP also provides guidelines for training, a monitoring and reporting system, and quality control.

Basin Electric is subject to a number of state and Federal laws that protect avian and bat species. Among the Federal regulations are the Migratory Bird Treaty Act (MBTA), the Bald and Golden Eagle Protection Act (BGEPA) and the Endangered Species Act (ESA). These laws, and others, provide protection for some of the wildlife species that may come into contact with Basin Electric facilities and operations.

Basin Electric's ABPP addresses issues associated with overhead transmission lines such as roosting and collision as well as wind turbine disturbance and collision issues. Many of the environmental considerations, for example siting, are applicable to both transmission lines and wind farms. Sections of the ABPP may address concerns collectively or specifically directed to a particular structure or activity, depending upon applicability. While distribution lines also pose a risk to avian species, this document is intended for use by Basin Electric, and therefore, focuses on transmission lines and wind turbines only.

Basin Electric believes that environmental responsibility is a cooperative-wide issue. The goal of this ABPP is to minimize the risks to avian and bat species from Basin Electric wind farms and transmission lines. Basin Electric believes that the development of an ABPP is an evolving process. As more data is collected, the ABPP will be modified to reflect the lessons learned as well as incorporating advances in research and technology. It is Basin Electric's intent that the ABPP will continue to expand, develop and improve as the knowledge regarding these issues within the industry advances and regulatory requirements change.

2.0 Cooperative Policy

Basin Electric is committed to a policy of environmental responsibility, coupled with providing reliable electricity in as low a cost manner as possible to cooperative members. This commitment extends to compliance with regulatory requirements protecting wildlife, obtaining and complying with all state and Federal permits, and making reasonable and prudent efforts to minimize the impact and mortality of avian and bat species while building and maintaining electric generation and transmission facilities.

This ABPP supports that commitment. It provides guidelines for the implementation of cooperative policy and provides a reference for project developers. Through this ABPP, Basin Electric commits to the following:

- Execute the policies and guidelines outlined in this ABPP to the extent practicable while ensuring the health and safety of employees;
- Execute the policies and guidelines outlined in this ABPP to the extent practicable under engineering and economic constraints;
- Act in accordance with all applicable state and Federal regulations regarding avian and bat species;
- Provide necessary training for applicable Basin Electric personnel in methods to minimize impact, identify species of concern, and proper mechanisms for monitoring and reporting;
- Whenever it is reasonably possible, through risk assessment and site selection, Basin Electric will minimize effects to avian and bat species in regard to placement of facilities and supporting infrastructure;
- Design structures to minimize negative impacts to the extent reasonably possible;
- Use best management practices during site construction and maintenance;
- After construction and commissioning, Basin Electric will follow developed monitoring and reporting procedures for mortalities and species of interest as necessary;
- During maintenance activities, Basin Electric will follow developed best management practices;
- As necessary, Basin Electric will consult with local, state and federal experts to gain guidance and share information;
- Whenever reasonable and possible, Basin Electric will take measures to reduce mortality to avian and bat species;
- Basin Electric will implement quality control measures to ensure compliance with the ABPP and identify any necessary updates and/or revisions to the ABPP;
- When retrofitting existing structures, Basin Electric will follow the same standards as new construction whenever practicable.

3.0 Permit Compliance

Basin Electric has developed the following process to obtain and comply with all necessary permits and laws pertaining to avian and bat issues. This process may continue past commissioning and through the life of a project, facility or infrastructure. The Basin Electric person(s) assigned to a project or facility as the environmental lead is responsible for obtaining and ensuring compliance with all permits. Basin Electric has facilities in multiple states, and therefore, may be subject to a variety of permits, laws and agencies, depending upon location.

Permit Process

1. During the project initiation stage, an individual or team from Environmental Services of Basin Electric should be assigned to the project.

2. During the project development stage, the Environmental Services personnel assigned to the project must develop a working list of permits that may potentially be required for the project. This list may continue to develop as the project develops.

3. Basin Electric Environmental Services staff has the lead responsibility for permitting. Environmental Services staff will work with Basin Electric engineering, drafting, GIS, right-of-way, other Basin Electric staff, and consultants to prepare permit applications.

4. When permits have been received, Environmental Services staff will submit the permits to the Records division and notify the project manager of the permit.

5. If the permit contains provisions regarding construction, monitoring and/or reporting, Environmental Services staff must inform appropriate individuals.

4.0 Training

As needed, training on avian and bat issues will be provided for Basin Electric staff as well as contracted staff. This training may vary based on type of project, length of project, project stage, time of year and potentially affected species. An individual's role may dictate the training that may be provided for project development, construction and/or operations. Depending upon the project, training may occur during project development, construction and/or operation. It is not anticipated that all projects will require training at all or any level. Additionally, some projects, such as wind farms, may require project or site specific training to be developed.

5.0 Site Selection and Site Design

Site selection applies the risk assessment analysis to potential project sites. In addition, site selection involves Basin Electric meeting with applicable agencies and landowners. Basin Electric is committed to contacting applicable state and federal agencies early in the project development process. These contacts help ensure that avian, bat and other environmental issues are illuminated as soon as possible.

Wind Turbine Site Layout and Design

Basin Electric uses a number of data sources to determine locations of good wind resource. Basin Electric typically sites wind projects as close to existing transmission lines as possible to minimize the construction of new transmission lines. All collector lines and communication cables are buried to avoid habitat loss and prevent collisions. Typically, this infrastructure would be adjacent to the access roads or along public rights-of-way or easements when possible.

Wind Turbine Siting Parameters

Generally, in addition to high quality wind resource and available transmission, Basin Electric looks to site wind turbines in areas of high pre-existing disturbances when possible. In areas that are going to be monitored closer for wind potential, simultaneously, these areas may also be examined closer for potential avian and bat concerns. A Potential Impact Index (PII) may be done on any site being considered for possible development.

Often, the wind farm layout goes through a series of iterations. Each turbine is microsited in relation to wind potential, wildlife, permitting, and other environmental and cultural constraints. Specifically, the following guidelines may be used when siting each wind turbine:

- Distance from section line or road;
- Distance from occupied residence;
- Out of hydric soils of a wetland;
- Near edges of a grassland;
- Avoid land with encumbrances, easements or other restrictions;
- Distance from a missile site or military installations;
- Distance from another turbine in the predominant wind direction;
- Distance from a transmission line; and
- Potential impacts on human, cultural, environmental, and natural resources and populations.

Transmission Line Siting Parameters

A preferred transmission line route is chosen from a number of alternatives. The preferred route would be selected after assessing each alternative based on a series of project-specific criteria. The following specific guidelines may be used when siting transmission lines:

- Length of the transmission line;
- Right-of-way requirements and availability;
- Land use considerations such as visual impacts, proximity to residences, and impact on agricultural activities as well as existing and future land use;

- Environmental resource considerations such as impacts on cultural or biological resources such as wildlife, plants, and wetlands;
- Jurisdiction and regulatory considerations;
- Conflicts with airport height restrictions;
- Cost; and
- Requirements of Federal and state law.

The technical performance of each transmission line alternative must be checked with a system analysis to ensure the project meets National Electric Reliability Council standards. Often the termination points of a transmission line are dictated by a need to reinforce a certain area of the transmission system or to provide access for a new generation or load. Usually there is flexibility in the routes of a transmission alternative as long as the line is terminated at the critical sending and receiving locations.

There are a number of factors regarding transmission line placement that may be considered when evaluating the potential impact the transmission line may have to avian species. Among these factors are proximity, vegetation and topography. Engineering and economic concerns must also be considered.

Proximity refers to the distance of the transmission line to any area of prime habitat or potential stopover habitat such as shallow wetlands. The closer the transmission line is to the habitat, the greater the chance for potential collisions.

In instances where the transmission line may be near areas where birds concentrate (e.g., wetlands, stream crossings, historic staging areas, roosts and nesting colonies) Basin Electric will assess if bird diversion devices should be utilized. These devices enhance line visibility, and therefore can reduce the risk of collision.

6.0 Construction Design Standards and Development Practices

General Construction Standards

Basin Electric will use best management practices during construction to minimize impacts to avian and bat species and their habitats. Pre-construction surveys may or may not be conducted depending upon the project. Examples or potential pre-construction surveys are breeding bird surveys, raptor breeding surveys, habitat of concern surveys and lek identification surveys. If pre-construction surveys are conducted, appropriate actions will be taken during construction as a result of the survey(s).

Wetlands will be avoided to the extent practicable during the construction phase of any project. If impacts to United States Army Corp of Engineers (USACE) jurisdictional waters are unavoidable, then Basin Electric will seek coverage under a Section 404 USACE Nationwide Wetland Permit. Permanent impacts to jurisdictional waters will be mitigated according to USACE requirements.

Wind Farm Construction

The building of new roads for wind farm construction and maintenance will be minimized. The existing road system will be used to the extent possible. When additional access roads are necessary, they will generally be built on ridges away from wetlands. When possible, new roads will follow the route of underground collector lines to minimize surface disturbance, and minimizing the disturbance of natural prairie and habitat. Additional road width necessary for construction will be reclaimed after construction.

Typically, temporary meteorological towers associated with a wind farm will be removed when construction begins. Any permanent meteorological tower will be freestanding and have no guy wires except for unusual circumstances when no other operations are practicable. Basin Electric continues to monitor new technology advancements in the market to find additional, less intrusive ways to monitor meteorological conditions.

Training for construction personnel will be site specific. Any observation of threatened or endangered avian and bat species will be reported to state and Federal agencies according to site-specific protocol. In the event of a sighting, construction activities, including curtailing would proceed according to site-specific protocol. Additionally, trained biologists may be on site during construction. This will be determined on a project by project basis.

Basin Electric will use best management practices during construction and operation of any wind farm to protect topsoil and adjacent wetland resources and to minimize soil erosion. Practices may include containing excavated material, use of silt fences, protecting exposed soil, stabilizing restored material, and revegetating disturbed areas with native species to preserve habitat.

Transmission Line Construction

Basin Electric uses *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006) and *Reducing Avian Collisions with Power Lines: The State of the Art in 2012* (APLIC 2012), or the most current versions of these documents as guidance. In general, in areas where electrocution may be a concern, a minimum of 150 cm (60 in) will be provided between phase conductors. Basin Electric builds and maintains transmission lines.

These transmission lines are constructed such that electrocution is typically not a concern. In some situations, perch deterrents may be necessary to discourage birds from landing on or utilizing areas where avian safety is a concern. A combination of the above options may be necessary to protect avian species to the extent possible.

7.0 Post-construction Monitoring and Reporting and Management

Active monitoring and/or use surveys for wind farms and transmission lines are not considered routine operation. Rather, incidental finds or finds resulting from maintenance activities would typically be documented and/or reported. All monitoring protocols, if necessary, will be developed on a site-specific basis. Depending upon the site or project, monitoring efforts may be very limited or unnecessary. If monitoring is appropriate, fatality monitoring and/or avian use surveys may be done.

Basin Electric considers incidental finds and reporting of avian and bat injuries or mortalities on the project site a basic job duty of all on-site personnel. All on-site personnel will be trained in appropriate procedures for identifying and reporting avian or bat injuries or mortalities.

Upon discovery of an injured or deceased avian or bat species on the project site, the following procedure will be followed by on-site personnel.

7.1. Wind Farm Operational Monitoring and Reporting

1. Do not remove, touch or move the bird or bat.
2. Photograph the bird or bat and complete the appropriate form.
3. If the bird or bat is a threatened or endangered species or otherwise a species of interest, such as a raptor, immediately notify the Distributed Generation Manager and Environmental Services of Basin Electric. Contact information for Environmental Services is provided on the form in Appendix C.
4. Environmental Services will work with trained biologists for proper handling of the bird or bat and notification of appropriate state and Federal agencies.
5. All completed forms, associated pictures, and any additional documentation will be forwarded to Environmental Services at Basin Electric headquarters in a timely manner.

7.2 Transmission Line Monitoring and Reporting

1. Do not remove, touch or move the bird or bat.
2. Complete the appropriate inspection in Minmax by contacting a TSM planner. Photograph the bird, bat or nest. The completed inspection is then automatically emailed to Environmental Services.
3. Environmental Services will work with trained biologists for proper handling of the bird or bat and notification of appropriate state and Federal agencies.
4. All completed forms, associated pictures, and any additional documentation will be forwarded to Environmental Services at Basin Electric headquarters in a timely manner.

7.3 Nest Management

Raptors and other avian species may use transmission line poles as a nesting site. The risk of avian electrocution with these nests is not high, but the nests may cause operation and maintenance issues. The Migratory Bird Treaty Act protects all active nests. A nest is

considered active if it has eggs or young birds. If an active nest has the potential to interfere with transmission line operations, the USFWS and the state game and fish department must be conferred with. The Migratory Bird Treaty Act prohibits the collecting of any active nest belonging to a migratory bird. Facility operators will at no time move or destroy any nest without receiving approval from Environmental Services of Basin Electric. Contact information for Environmental Services is provided on the form in Appendix B. Environmental Services will use environmental consultants, the USFWS, and the state game and fish department to determine the best course of action in each situation. Nests of eagles and threatened and endangered species may not be moved or destroyed at any time without consultation with the USFWS and the state game and fish department.

Avian species tend to nest in site specific locations. Therefore, moving a nest does not mean that the nest will not be re-built in the same location. As a result, nesting platforms may need to be utilized. If nesting platforms are to be used, they should be installed on or near the transmission tower that had been utilized for the avian nesting. A nearby, non-energized pole is preferred. The nesting platform should be installed in a way such that nesting materials and avian excrement will not contaminate the lines. If a platform is used, plastic poles, corrugated pipe, or other materials may be placed on the transmission structure to discourage the building of nests particularly in situations where nest building in general should be discouraged for the protection of people, the nesting birds, and/or the power system.

8.0 Consultation and Information Sharing

Basin Electric understands that a great deal of information regarding wildlife interactions with wind turbines, transmission lines and other structures may potentially be gained through the use of routine data collection and surveys. This information, in addition to information gained from other utilities, may result in better practices and new technology that provides more protection to wildlife, particularly avian and bat species. In efforts to facilitate this information gathering, Basin Electric will consider all requests for non-proprietary data and information.

Additionally, Basin Electric looks to the USFWS and state game and fish departments to provide consultation services and expert advice throughout the life of projects.

9.0 Mortality Reduction Measures

The information gained through risk management activities, along with additional data collection, will be analyzed by Basin Electric Environmental Services staff and/or wildlife consultants. This analysis will then be translated for future project development as best practices to prevent avian and bat mortality and injury. This information will also be used by Basin Electric to determine whether or not a mortality reduction plan for the project or site is warranted. The data collected through the implementation of the ABPP will also help determine the need for a mortality reduction plan.

If a mortality reduction plan is needed there are a number of elements that may be included. A risk assessment may provide information predicting the best approach. Biological and electrical design information should also be utilized to prioritize transmission poles, identify benefits and causes of injury or mortality to avian species and bats.

10.0 Avian and Bat Enhancement Options

Basin Electric has for many years provided excellent avian habitat through the use of reclaimed mine land, and other mitigation and reclamation projects and opportunities Basin Electric has also sought out opportunities to partner in habitat conservation with non-governmental organizations. In addition, Basin Electric welcomes collaboration between Basin Electric and volunteer groups and service organizations to enhance avian and bat populations.

11.0 Quality Control

Quality control and review is vital to ensuring that the ABPP accomplishes the goals set forth and remains a useful tool in avian and bat protection. Training will be conducted annually for facility maintenance staff. The ABPP will be reviewed and updated as needed by Basin Electric environmental and project staff, and/or consultants.

12.0 Key Resources

The following have been identified as key resources for the ABPP, particularly within Basin Electric's Service area.

U.S. Fish and Wildlife Service Migratory Bird Permit Regional Offices

Region 3: (Iowa, Illinois, Indiana, Minnesota, Missouri, Michigan, Ohio, Wisconsin)
U.S. Fish and Wildlife Service Migratory Bird Permit Office
One Federal Drive
Fort Snelling, MN 55111
Telephone (612) 713-5436
Fax: (612) 713-5393
Email: permitsR3MB@fws.gov

Region 6: (Colorado, Kansas, Montana, North Dakota, Nebraska, South Dakota, Utah, Wyoming)
U.S. Fish and Wildlife Service Migratory Bird Permit Office
P.O. Box 25486 DFC (60154)
Denver, CO 80225-0486
Telephone: (303) 236-8171
Fax: (303) 236-8017
Email: permitsR6MB@fws.gov

U.S. Fish and Wildlife Service Office of Law Enforcement

National Headquarters
Office of Law Enforcement
U.S. Fish and Wildlife Service
4401 North Fairfax Drive,
MS-LE-3000
Arlington, Virginia, USA 22203
Telephone: (703) 358-1949
Fax: (703) 258-2271

Great Lakes – Big Rivers Region (3): Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, Wisconsin
U.S. Fish and Wildlife Service
Office of Law Enforcement
One Federal Drive
Fort Snelling, Minnesota, USA 55111-0045
Telephone (612) 713-5320
Fax: (612) 713-5283

Mountain-Prairie Region (6): Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, Wyoming
U.S. Fish and Wildlife Service
Office of Law Enforcement
P.O. Box 25486 - DFC
Denver, Colorado USA 80225

Telephone: (303) 236-7540
Fax: (303) 236-7901

U.S. Fish and Wildlife Service Ecological Services Field Offices

U.S. Fish and Wildlife Service
Montana Ecological Services Field Office
585 Shepard Way
Helena, MT 59601
Telephone: (406) 449-5225
Fax: (406) 449-5339
Email: MontanaFieldOffice@fws.gov
http://www.fws.gov/montanafieldoffice

U.S. Fish and Wildlife Service
Nebraska Ecological Services Field Office
203 West Second Street
Federal Building, Second Floor
Grand Island, NE 68801-5907
Telephone: (308) 382-6468
Fax: (308) 384-8835
Email: June_Deweese@fws.gov
http://www.fws.gov/mountain-prairie/es/Nebraska/index.htm

U.S. Fish and Wildlife Service
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926
Telephone: (701) 250-4481
Fax: (701) 355-8513
Email: northdakotafieldoffice@fws.gov
http://www.fws.gov/northdakotafieldoffice

U.S. Fish and Wildlife Service
South Dakota Ecological Services Field Office
420 S. Garfield Avenue, Suite 400
Pierre, SD 57501-5408
Telephone: (605) 224-8693
Fax (605) 224-9974
Email: southdakotafieldoffice@fws.gov
http://www.fws.gov/southdakotafieldoffice

U.S. Fish and Wildlife Service
Wyoming Ecological Services Field Office
5353 Yellowstone Road, Suite 308A
Cheyenne, WY 82009
Telephone: (307) 772-2374
Fax: (307) 772-2358
http://www.fws.gov/wyominges

U.S. Fish and Wildlife Service National Eagle Repository
U.S. Fish and Wildlife Service
National Eagle Repository
Rocky Mountain Arsenal, Building 619
Commerce City, CO 80022
Telephone: (303) 287-2110
Fax: (303) 287-1570
http://mountain-prairie.fws.gov/law/eagle

Code of Federal Regulations (CFR) websites
Main CFR webpage
http: //gpoaccess.gov/cfr/

List of migratory birds, 50CFR10.13
http://a257.g.akamaitech.net/7/257/2422/01dec20031500/edocket.access.gpo.gov/cfr_2003/octqtr/50cfr10.13.htm

General permit procedures, 50CFR13
http://access.gpo.gov/nara/cfr/waisidx_03/50cfr13_03.html

Endangered and threatened wildlife and plants, 50CFR17
http://access.gpo.gov/nara/cfr/waisidx_03/50cfrv2_03.html

Migratory bird permits, 50CFR21
http://access.gpo.gov/nara/cfr/waisidx_03/50cfr21_03.html

Eagle permits, 50CFR22
http://access.gpo.gov/nara/cfr/waisidx_03/50cfr22_03.html

State Agencies
Iowa Department of Natural Resources
502 E. 9th Street
Des Moines, IA 50319-0034
Telephone: (515) 281-5918
Fax: (515) 281-8895
Email: webmaster@dnr.iowa.gov
http://www.iowadnr.gov/

Minnesota Department of Natural Resources
500 Lafayette Road
St. Paul, MN 55155-4040
Telephone: (651) 296-6157
Email: info@dnr.state.mn.us
http://www.dnr.state.mn.us

Montana Department of Fish, Wildlife and Parks
1420 East Sixth Avenue
P.O. Box 200701
Helena, MT 59620-0701
Telephone: (406) 444-2535

Fax: (406) 444-4952
E-mail: fwpgen@mt.gov
http://fwp.mt.gov/default.html

Nebraska Game and Parks Commission
2200 N 33rd Street
Lincoln, NE 68503
Telephone: (402) 471-0641
Email: ngpc.webmaster@nebraska.gov
http://www.ngpc.state.ne.us

North Dakota Game and Fish Department
100 N Bismarck Expressway
Bismarck, ND 58501-5095
Telephone: (701) 328-6300
Fax: (701) 328-6352
Email: ndgf@nd.gov
http://gf.nd.gov/

South Dakota Department of Game, Fish and Parks
523 East Capitol Avenue
Pierre, SD 57501
Telephone: (605) 773-3485
Email: Wildinfo@state.sd.us
http://www.sdgfp.info/Index.htm

Wyoming Game and Fish Department
5400 Bishop Boulevard
Cheyenne, WY 82006
Telephone: (307) 777-4600
http://gf.state.wy.us/

Consultants
Corporate Headquarters
Western EcoSystems Technology, Inc. (WEST)

2003 Central Avenue
Cheyenne, Wyoming 82001
Phone: (307) 634-1756
Fax: (307) 637-6981
Email: admin@west-inc.com
http://www.west-inc.com/index.php

Midwest-West Region
Western EcoSystems Technology, Inc. (WEST)
Bismarck Branch Office
4007 State Street, Suite 109
Bismarck, North Dakota 58503
Phone: (701) 250-1756

13.0 Appendices

Dead or Injured Bird Form – Transmission Line or Substation

This form will be completed using the Minmax Inspection tool. Screenshot of actual inspection questions below:

No.		Status	Question	Action	Results		Comments	Question History
1			Take a photograph of the bird	Inspected	Any Text 20 Char		Type Comment Here...	
2			If the bird has a band and is it's visible take a picture of it	Inspected	Any Text 20 Char		Type Comment Here...	
3			Provide a description of location approximate from a structure or piece of equipment in comments	Inspected	Any Text 20 Char		Type Comment Here...	

Notification to USFWS (if necessary) _____ Date _____

Notification to State Game and Fish (if necessary) _____ Date _____

Corrective Action (if necessary) _____ Date _____

Environmental Services Contacts

1. Erin Fox Dukart – Office: (701) 557-5557; Cell: (701) 426-8116
2. Ryan King – Office: (701) 557-5558; Cell: (701) 426-9469

Nest Form – Transmission Line or Substation

This form will be completed using the Minmax Inspection tool. Screenshot of actual inspection questions below:

No.		Status	Question	Action	Results		Comments	Question History
1			Take a photograph of the nest	Inspected	Any Text 20 Char		Type Comment Here...	
2			Is the nest active if yes take a picture of the bird if possible?	Inspected	Yes		Type Comment Here...	
3			Provide a description of location approximate from a structure or piece of equipment in comments	Inspected	Any Text 20 Char		Type Comment Here...	

Notification to USFWS (if necessary) _____ Date _____

Notification to State Game and Fish (if necessary) _____ Date _____

Corrective Action (if necessary) _____ Date _____

Environmental Services Contacts

1. Erin Fox Dukart – Office: (701) 557-5557; Cell: (701) 426-8116
2. Ryan King – Office: (701) 557-5558; Cell: (701) 426-9469

Dead or Injured Bird or Bat Form – Wind Farm (Adapted from APLIC 2006)

Date of Form Completion: _____ Name of Wind Farm: _____

AVIAN/BAT INFORMATION

Avian Species

☐Bald Eagle

☐Golden Eagle

☐Whooping Crane

☐Hawk (specify if possible): _____

☐Owl (specify if possible): _____

☐Waterfowl (specify if possible):_____

☐Other (specify if possible):_____

If unable to identify, please describe:

_____

Bat Species

Please describe:

_____

Bird or Bat Count: _____ Did avian/bat die: Yes No

If any bands or tags, please notify Environmental Services and write the tag/band number and agency _____

Physical Condition of Bird or Bat: (Body intact, just feathers, type of injury, etc).

_____

_____

Sign of Death or Injury (circle one) Collision Electrocution Shot Roadkill Unknown Other: _____

Date Found: _____ Time Found: _____

If known, describe how the bird or bat was injured or died (bird contacted transformer bushings, turbine collision, etc.) _____

_____

_____

Weather conditions at time of death if known (e.g. rainy and cold, sunny and warm, etc)

_____

Status of carcass/remains: No carcass Left on-site

LOCATION INFORMATION

Closest Turbine Identification No. _____

County and State: _____

Finder's Last Name: _____ First Name: _____

Location Description (Include nearest structure, distance from structure, etc.)

_____

_____

Description of Terrain and Vegetation in Area (e.g. near agriculture area, near wetlands, rugged terrain, native prairie, dense city area, residential housing, etc.)

_____

_____

_____

Nest visible nearby? If so, please provide detailed description of the size and location of the nest. _____

_____

_____

Comments/Additional Information:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Notification to USFWS (if necessary) _____ Date _____

Notification to State Game and Fish (if necessary) _____ Date _____

Corrective Action (if necessary) _____ Date _____

Environmental Services Contacts

1. Steve Smokey – Office (701) 557-5180; Cell: (701) 204-8197
2. Erin Fox Dukart – Office: (701) 557-5557; Cell: (701) 426-8116
3. Ryan King – Office: (701) 557-5558; Cell: (701) 426-9469
4. Joe Fiedler - Office (701) 557-5094; Cell: (701) 390-3633

PrairieWinds Whooping Crane Notification

Date: _____

Time: _____

Name of Person Calling: _____

Phone Number of Caller: _____

Description of the Bird: _____

Sighting Location: _____

If Killed or Wounded, Location: _____

The Following People Need to be Notified Immediately:

1. Joe Fiedler - Office: (701) 557-5094; Cell: (701) 390-3633
2. Erin Fox Dukart - Office: (701) 557-5557; Cell: (701) 426-8116
3. Ryan King – Office: (701) 557-5558; Cell: (701) 426-9469
4. Steve Smokey - Office: (701) 557-5180; Cell: (701) 204-8197
5. Lindsey Chumley - Office: (701) 557-5038; Cell: (701) 400-8784

Date of Turbine(s) Shutdown: _____ Time of Turbine(s) Shutdown: _____

Wind Turbine ID Number(s) Shutdown: _____

Date of Turbine Restart: _____ Time of Turbine Restart: _____

Date the Park was Shutdown: _____ Time the Park was Shutdown: _____

Additional Comments:

Name: _____

Whooping Crane Migration Season:

- April 1st to May 15th
  September 10th to October 31st

Appendix D

Agency Consultation Summary

Agency	Notification Date	Response Date	Comment Summary	Basin Electric Response
Aeronautics Commission	8/27/2024	None Received		
Attorney General	8/27/2024	None Received		
Bureau of Land Management	8/27/2024	None Received		
Federal Aviation Administration	8/27/2024	8/29/2024	The FAA reviewed this Project in regard to the safe and efficient use of public airports and airspace within the Project Study Area. The FAA has a web site to determine who shall file in the Obstruction Evaluation/Airport Airspace Analysis website.	Basin Electric input the proposed structure locations, site elevation, and structure height into the FAA Notice Criteria Tool and concluded no proposed structure exceeds the FAA's notification criteria.
Governor's Office	8/27/2024	None Received		
Grand Forks Air Force Base	8/27/2024	None Received		
Jobs Service North Dakota	8/27/2024	None Received		
Military Aviation and Installation Assurance Siting Clearinghouse	8/27/2024	9/29/2024	The Clearinghouse requested a KMZ file for mapping the project, structure material, and structure heights.	Basin Electric provided the requested information to The Clearinghouse.
Minot Air Force Base	8/27/2024	None Received		
Natural Resources Conservation Service	8/27/2024	None Received		
ND Department of Agriculture	8/27/2024	None Received		
ND Department of Career and Technical Education	8/27/2024	None Received		

Agency	Notification Date	Response Date	Comment Summary	Basin Electric Response
ND Department of Commerce	8/27/2024	8/27/2024	No Concerns	
ND Department of Environmental Quality	8/27/2024	9/12/2024	The NDDEQ recommends that: managing fugitive dust emissions created during construction; care should be taken during construction near any water of the state to minimize adverse effects on the waterbody; caution must be taken to prevent spills of oil and grease that may reach the receiving water. Projects disturbing one or more acres are required to have a permit to discharge stormwater runoff until the site is stabilized by the re-established vegetation. All solid waste materials must be managed and transported in accordance with the state's solid and hazardous waste rules. The NDDEQ owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. The NDDEQ believes the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of ND.	
ND Department of Health	8/27/2024	None Received		
ND Department of Human Services	8/27/2024	None Received		
ND Department of Labor and Human Rights	8/27/2024	None Received		
ND Department of Transportation	8/27/2024	None Received		

Agency	Notification Date	Response Date	Comment Summary	Basin Electric Response
ND Department of Trust Lands (Minerals Management)	8/27/2024	None Received		
ND Department of Trust Lands (School/Surface Trust)	8/27/2024	8/29/2024	It does not appear that NDDTL manages any surface estate within the proposed Project area.	
ND Energy Infrastructure and Impact Office	8/27/2024	None Received		
ND Forest Service	8/27/2024	None Received		
ND Game and Fish Department	8/27/2024	9/18/2024	The NDGF has reviewed the project for wildlife concerns. 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. The USFWS developed a list of recommended best practices for siting towers to minimize bird strikes. Where guy wires are required for tower design, the minimum number of guy wires necessary should be used and consideration given to installation of daytime visual markers or bird flight diverters. The NDGF does 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.	
ND Geological Survey	8/27/2024	None Received		

Agency	Notification Date	Response Date	Comment Summary	Basin Electric Response
ND Indian Affairs Commission	8/27/2024	None Received		
ND Industrial Commission	8/27/2024	None Received		
ND Parks and Recreation Department	8/27/2024	9/18/2024	The project does not appear to affect properties NDPRD owns, leases, or manages. The project does not appear to affect any properties protected under Section 6(f) of the Land and Water Conservation Fund. No known plant and animal species of concern or significant ecological communities are documented within or immediately adjacent to the project site.	
ND Pipeline Authority	8/27/2024	None Received		
ND State Water Commission (Department of Water Resources)	8/27/2024	None Received		
ND Transmission Authority	8/27/2024	8/27/2024	The Transmission Authority is pleased to see the project move forward, a valuable addition for load growth and system reliability in the region.	
State historical Society of North Dakota	8/27/2024	9/3/2024	SHSND has reviewed the project, reference number 24-9006 and has determined that there are no significant sites affected by the new substation, provided it takes place in the location and in the manner described in the documentation. For the addition of the 115-kV circuit, there are five sites that should be avoided by construction activities.	Basin Electric has obtained site boundaries for each of the five referenced sites and will fence the boundaries and avoid during construction.
Twentieth Airforce Ninety-First Missile Wing	8/27/2024	None Received		

Agency	Notification Date	Response Date	Comment Summary	Basin Electric Response
US Army Corps of Engineers	8/27/2024	9/11/2024	In the event the Project requires approval from the USACE and cannot be authorized by Nationwide Permit(s), a Standard or Individual Permit will be required. If the Project requires a Section 404 permit, complete and submit the enclosed Department of the Army permit application (ENG Form 6082) to the USACE. Project identification number NWO-2012-02869-BIS. No further action is needed if all wetlands will be avoided during construction.	Basin Electric will be avoiding all wetlands during construction.
US Department of Defense	8/27/2024	None Received		
US Fish and Wildlife Service	8/27/2024	9/11/2024	The USFWS recommends the following to minimize impacts to wildlife resources: Refer to our standard buffer and timing document provides general recommendations for trust resources; use the Information for Planning and Consultation (IPaC) Database; contact the NDGF for locations of eagle nests in the Project vicinity; delineate suitable Dakota skipper habitat along the proposed 115-kV route and establish a 250m buffer around that habitat during construction; quantify potential impacts to whooping crane habitat using the suitability model; survey all suitable areas for ground nesting birds prior to ground disturbance.	Basin Electric has conducted a survey for endangered and threatened species for the substation and proposed new structure locations. A survey for habitat along the 115-kV transmission route will be completed prior to construction and the appropriate buffer will be put in place. A brief report will be provided to USFWS detailing findings of habitat surveys along the 115-kV route, whooping crane habitat suitability model, and ground nest surveys prior to construction of the 115-kV route.
Williams County Commission	8/27/2024	None Received		
Williams County Auditor	8/27/2024	None Received		
State Representative - District 2	8/27/2024	None Received		

Agency	Notification Date	Response Date	Comment Summary	Basin Electric Response
State Representative - District 2	8/27/2024	None Received		
State Senator - District 2	8/27/2024	None Received		

BASIN ELECTRIC POWER COOPERATIVE
A Touchstone Energy® Cooperative

September 26, 2024

>>Name<<
>>Title<<
>>Agency<<
>>Address<<
>>City, State, Zip Code<<

Re: Notification of Basin Electric Power Cooperative's Proposed Antelope Valley Station to Neset – Springbrook Substation Addition

Dear >>Title, Name<<,

Basin Electric Power Cooperative (Basin Electric) is proposing to develop the Springbrook Substation, associated transmission lines, and microwave tower in Williams County, ND (Project). The purpose of this letter is to provide notification of the Project per North Dakota Administrative Code Section 69-06-01-05. Basin Electric plans to submit an application amendment for a Certificate of Corridor Compatibility and Transmission Facility Route Permit for the Project to the North Dakota Public Service Commission (NDPSC).

In April 2014, the NDPSC issued Corridor Certificate No. 152 and Route Permit No. 164 to Basin Electric. This Corridor Certificate and Route Permit authorized the construction of 197 miles of 345-kilovolt (kV) and 230-kV electric transmission line and associated facilities – the Antelope Valley Station (AVS) to Neset Project. The AVS to Neset Project was completed in 2016 and extends from AVS, near Beulah, ND to the Neset Substation, near Tioga, ND. Additional facilities are now being proposed as part of this Project and include:

- Construction of a new 345/115-kV load-serving substation near Williston, ND (Springbrook Substation) to serve the system of Basin Electric's member, Mountrail Williams Electric Cooperative (MWEC).
- Installation of two new 345-kV structures to tie the existing AVS to Neset 345-kV transmission line to the proposed Springbrook Substation.
- Installation of a 115-kV circuit on approximately 6.8 miles of existing 345-kV structures to connect the proposed Springbrook Substation to the existing MWEC East Fork Substation.
- Installation of a 250-foot microwave tower to be located within the proposed Springbrook Substation's fence.

The proposed Springbrook Substation, associated 345-kV transmission line, and microwave tower would be adjacent to the existing AVS to Neset 345-kV transmission line, in Section 36 of Township 156N, Range 100W (see attached figure). Basin Electric has land rights through an Option to Purchase the entire 40.06-acre parcel on which the substation would be located. The proposed substation would occupy approximately 11.9 acres within the site's fenced area; graded and bermed areas around the site would occupy 6.92 additional acres. The two additional 345-kV structures will also be located within the Basin Electric owned parcel and would occupy less

than 0.01 acres, combined. The 115-kV circuit runs in an east to west direction and is approximately 6.8 miles long, and will be constructed entirely on existing 345-kV structures, with no additional structures being installed. The microwave tower will be installed within the proposed substation fence.

The purposed and need of the Project is to provide a new 115-kV delivery point from the existing 345-kV transmission system to support regional reliability and growing electrical demand in the region. The upgrade was selected as part of the 2021 Southwest Power Pool Interregional Transmission Planning Assessment.

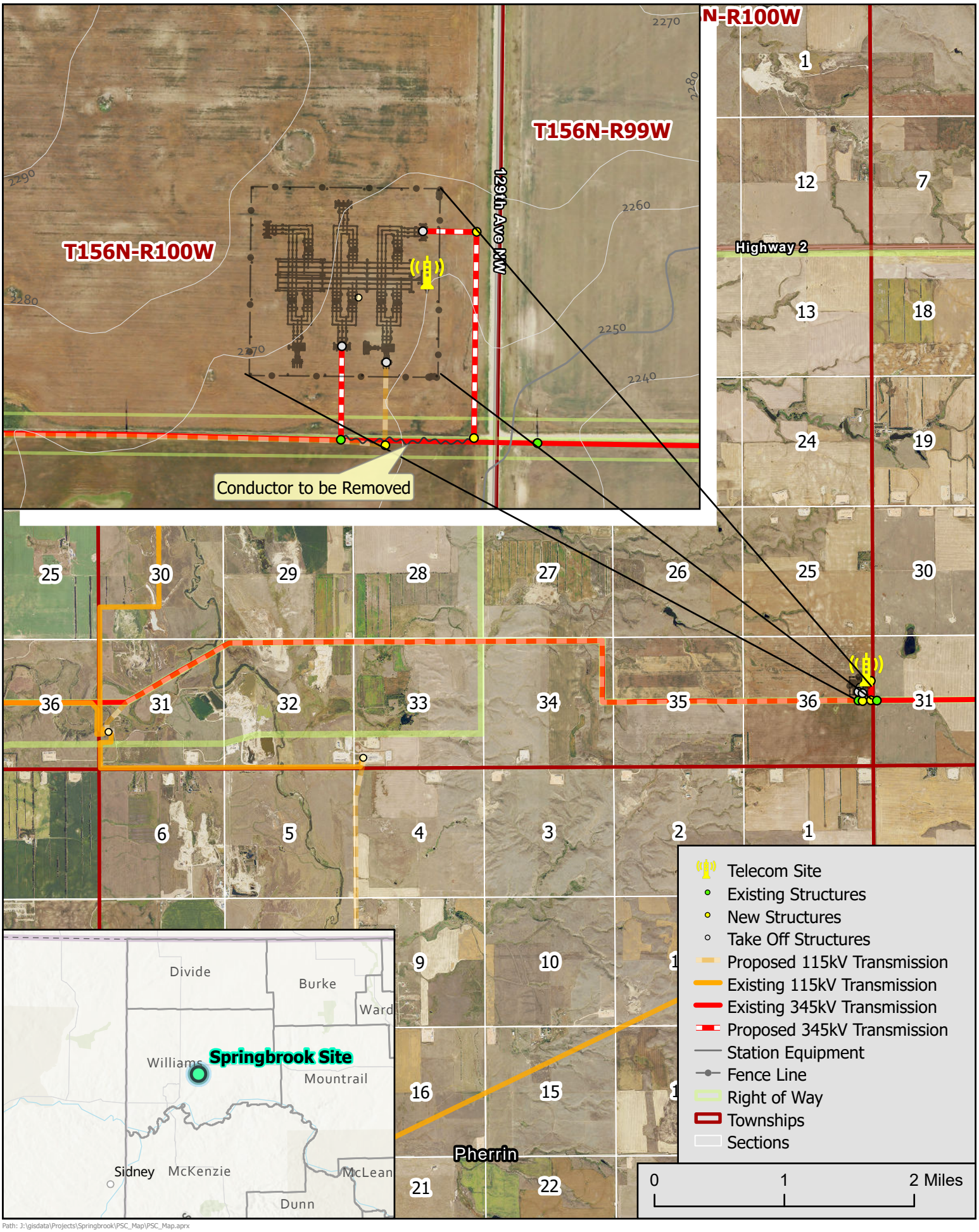
Basin Electric is solicitating input from your agency regarding any sensitive resources, current or planned development, or property interests your agency may have in or around the Project area that should be considered as the Project moves forward with development. In addition, Basin Electric asks that you provide information regarding any applicable permits that may be required from your office. Basin Electric respectfully requests your response within 30 days of receipt of this letter. If no reply is received, it will be assumed that you have no comment on the Project. Copies of all correspondence received in response to this letter will be included with the NDPSC application. If further information is desired or if you have comments regarding the Project, please contact me by email at rking@bepc.com, by phone at 701-557-5558, or by mail at 1717 East Interstate Avenue, Bismarck, ND 58503.

Sincerely,

Ryan King
Environmental Coordinator

Antelope Valley Station to Neset – Springbrook Substation Addition

BASIN ELECTRIC POWER COOPERATIVE
A Touchstone Energy® Cooperative



Path: J:\gisdata\Projects\Springbrook\PSC_Map\PSC_Map.aprx

Federal Aviation Administration

From: Holzer, Mark (FAA)
To: Ryan King
Cc: Anderson, David P (FAA); Probert, Thomas G (FAA); Jenny, Melissa M (FAA)
Subject: [External] FAA review of Basin Electric AVS to Neset - Springbrook Substation Addition
Date: Monday, September 9, 2024 8:50:54 PM
Attachments: image001.png
image002.png
image003.png
image004.png
Federal Aviation Administration_BEPC AVS to Neset - Springbrook Substation Addition.pdf

Ryan King-Basin Electric Environmental Coordinator

Good afternoon,

FAA reviews this proposed transmission line project in regards to the safe and efficient use of public airports and airspace within this study area.

FAA has a web site pasted below to determine who shall file in FAA web site OE/AAA om accordance to heights above ground or locations near a public airport.

https://oeaaa.faa.gov/oeaaa/external/portal.jsp

The following is the guidance as to who needs to file.

Who Must File?

§ 77.9 — Any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- Any construction or alteration exceeding 200 ft above ground level
- Any construction or alteration
  - within 20,000 ft of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 ft.
  - within 10,000 ft of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 ft.
  - within 5,000 ft of a public use heliport which exceeds a 25:1 surface
- Any highway, railroad or other traverse way whose prescribed adjusted height would exceed that above noted standards
- When requested by the FAA
- Any construction or alteration located on a public use airport or heliport regardless of height or location

Persons failing to comply with the provisions of FAR Part 77 are subject to Civil Penalty under Section 902 of the Federal Aviation Act of 1958, as amended and pursuant to 49 U.S.C. Section 46301(a).

Filing notice tool can be found here:

https://oeaaa.faa.gov/oeaaa/external/gisTools/gisAction.jsp?action=showNoNoticeRequiredToolForm

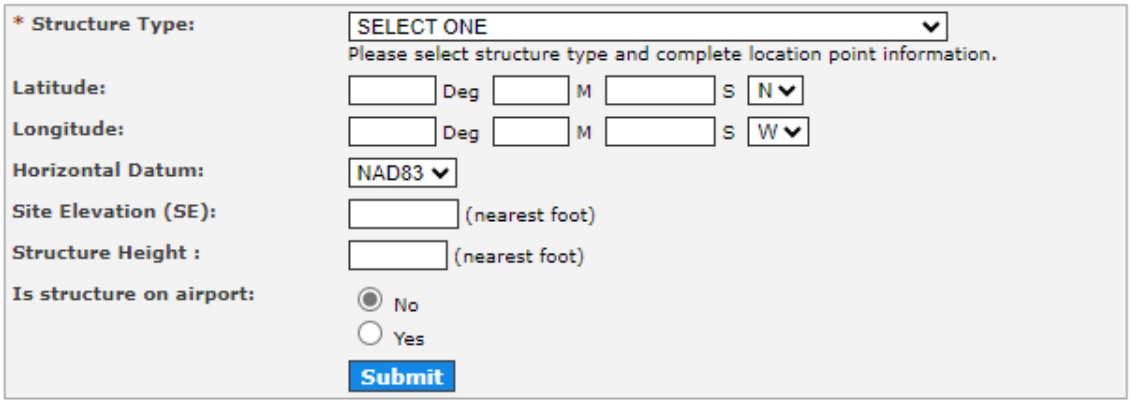
The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference CFR Title 14 Part 77.9.

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the FAA Co-location Policy
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the Air Traffic Areas of Responsibility map for Off Airport construction, or contact the FAA Airports Region / District Office for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

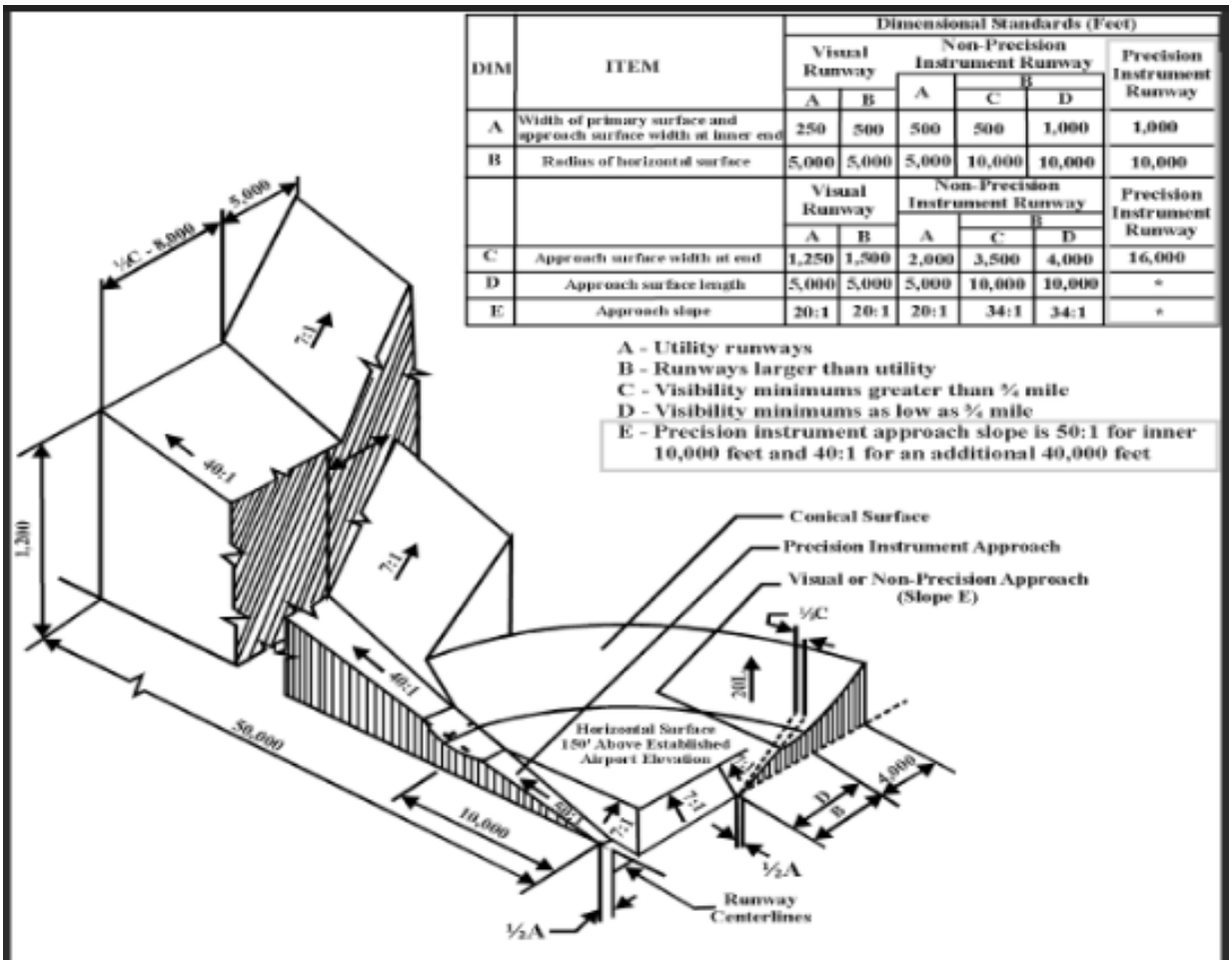


The location of public airports in ND can be found using ND Aeronautics Commission aeronautical chart as per link below.

https://aero.nd.gov/image/cache/454569_Chart.pdf

Once you have the powerline area mapped, you can verify its location near any public use airports or FAA owned navaids by reviewing the ND airport link above along with sending me a copy of the mapping to verify airport locations near along this corridor routing proposal. FAA also advises that that if a study is necessary per Part 77 guidance above that this proposed will also address impacts to FAA navaid frequencies/signal reception, airport instrument approach/departure procedures, and airway impacts.

FAA Part 77 sketch below depicts airspace around an airport based on the type of runway and flight procedures in place along with plans on file for an airport for considering the impacts.



Federal and state agencies develop guidelines and recommendations to protect airports and the associated airspace, while local government officials, planners, airport sponsors, and community members implement and enforce the land use programs. The Airport Sponsor has the legal authority for the operation and management of an airport or airports. An airport sponsor with land use authority (provided by state law or owning city or county) should ensure compatible land use is maintained and protected in the airport environs, typically by enforcement of adequate zoning code within the airport area of influence.

We hope this information provides a starting place for assessing the impacts to existing and future airports or airspace near a public use airport for this proposed project.

Mark J. Holzer
Program Manager
Federal Aviation Administration
Dakota Minnesota Airports District Office
2301 University Drive, Bldg 23B
Bismarck, ND 58504
701.323.7393

From: Ryan King <RKing@bepc.com>
Sent: Tuesday, August 27, 2024 2:49 PM
To: Anderson, David P (FAA) <David.P.Anderson@faa.gov>
Subject: Basin Electric AVS to Neset - Springbrook Substation Addition - Consultation Request

Assistant Manager Anderson,

Please see the attached consultation letter requesting review of Basin Electric's Antelope Valley Station to Neset – Springbrook Substation Addition (Project). The Project involves construction of a new 345/115-kV load-serving substation, installation of two new 345-kV structures to tie the existing AVS to Neset 345-kV transmission line to the proposed Springbrook Substation, installation of a 115-kV circuit on approximately 6.8 miles of existing 345-kV structures to connect the proposed Springbrook Substation to the existing Mountrail Williams East Fork Substation, and the installation of a 250-foot microwave tower. The Project is located in Williams County, North Dakota. Due to the Project schedule, I am respectfully requesting a review of the material within 30 days.
If you have any questions or need additional information, please contact me directly at 701-557-5558 or RKing@bepc.com.

Thank you,

Ryan King
Environmental Coordinator
Basin Electric Power Cooperative
1717 E Interstate Avenue | Bismarck, ND 58503
Direct: 701.557.5558 | Cell: 701.426.9469
RKing@bepc.com | basinelectric.com

Military Aviation and Installation Assurance Siting Clearinghouse

From: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC
To: Ryan King
Cc: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC
Subject: RE: [External] External: RE: Basin Electric AVS to Neset - Springbrook Substation Addition - Consultation Request
Date: Tuesday, September 3, 2024 2:35:43 PM
Attachments: image001.jpg
image002.png

Good afternoon Mr. King,

Thank you, sir. We'll get started right away.

Very Respectfully,

The Clearinghouse
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of Defense (Energy Resilience and Optimization)
Email: osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil

From: Ryan King <RKing@bepc.com>
Sent: Tuesday, September 3, 2024 11:48 AM
To: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>
Subject: RE: [External] External: RE: Basin Electric AVS to Neset - Springbrook Substation Addition - Consultation Request

Good morning,

Attached is a KMZ of the project. Also attached are the design details for the new structures. The 2 345-kV structures will be 130' and 145' tall (dwg 291-090-T2-375). The 115 structure will be 95' tall (dwg 291-090-T2-376). All will be steel structures.

Please reach out with any further questions.

Thank you,

Ryan King | Environmental Coordinator
Direct: 701.557.5558 | Cell: 701.426.9469

From: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>
Sent: Wednesday, August 28, 2024 1:48 PM
To: Ryan King <RKing@bepc.com>
Cc: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-

sc@mail.mil>
Subject: [External] External: RE: Basin Electric AVS to Neset - Springbrook Substation Addition - Consultation Request

Good afternoon Mr. King,

Your Informal Review request for the Antelope Valley Station to Neset – Springbrook Substation Addition project has been received. We will begin processing the request shortly. To aid us in our review, can you please provide the following:

- A shapefile and/or KMZ file for mapping the project
- Type of add'l Poles (wood, concrete, steel):
- Transmission Pole Heights (or maximum height of add'l poles):

Thank you for the opportunity to review the project.

Very Respectfully,

The Clearinghouse
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of Defense (Energy Resilience and Optimization)
Email: osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil

From: Ryan King <RKing@bepc.com>
Sent: Tuesday, August 27, 2024 3:51 PM
To: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>
Subject: Basin Electric AVS to Neset - Springbrook Substation Addition - Consultation Request

To Whom it May Concern,

Please see the attached consultation letter requesting review of Basin Electric's Antelope Valley Station to Neset – Springbrook Substation Addition (Project). The Project involves construction of a new 345/115-kV load-serving substation, installation of two new 345-kV structures to tie the existing AVS to Neset 345-kV transmission line to the proposed Springbrook Substation, installation of a 115-kV circuit on approximately 6.8 miles of existing 345-kV structures to connect the proposed Springbrook Substation to the existing Mountrail Williams East Fork Substation, and the installation of a 250-foot microwave tower. The Project is located in Williams County, North Dakota. Due to the Project schedule, I am respectfully requesting a review of the material within 30 days.
If you have any questions or need additional information, please contact me directly at 701-557-5558 or RKing@bepc.com.

Thank you,

Ryan King
Environmental Coordinator
Basin Electric Power Cooperative
1717 E Interstate Avenue | Bismarck, ND 58503
Direct: 701.557.5558 | Cell: 701.426.9469
RKing@bepc.com | basinelectric.com

ND Department of Commerce

From: Teigen, Joshua L.
To: Ryan King
Subject: [External] External: Re: Basin Electric AVS to Neset - Springbrook Substation Addition - Consultation Request
Date: Tuesday, August 27, 2024 3:21:04 PM
Attachments: image001.png

External Email - Use caution clicking links or opening attachments
Thank you Ryan, no concerns here.

Get Outlook for iOS

From: Ryan King <RKing@bepc.com>
Sent: Tuesday, August 27, 2024 2:55:41 PM
To: Teigen, Joshua L. <jlteigen@nd.gov>
Subject: Basin Electric AVS to Neset - Springbrook Substation Addition - Consultation Request

> You don't often get email from rking@bepc.com. Learn why this is important

******* CAUTION:** This email originated from an outside source. Do not click links or open attachments unless you know they are safe. *****

Commissioner Teigen,

Please see the attached consultation letter requesting review of Basin Electric's Antelope Valley Station to Neset – Springbrook Substation Addition (Project). The Project involves construction of a new 345/115-kV load-serving substation, installation of two new 345-kV structures to tie the existing AVS to Neset 345-kV transmission line to the proposed Springbrook Substation, installation of a 115-kV circuit on approximately 6.8 miles of existing 345-kV structures to connect the proposed Springbrook Substation to the existing Mountrail Williams East Fork Substation, and the installation of a 250-foot microwave tower. The Project is located in Williams County, North Dakota. Due to the Project schedule, I am respectfully requesting a review of the material within 30 days.
If you have any questions or need additional information, please contact me directly at 701-557-5558 or RKing@bepc.com.

Thank you,

Ryan King
Environmental Coordinator
Basin Electric Power Cooperative
1717 E Interstate Avenue | Bismarck, ND 58503
Direct: 701.557.5558 | Cell: 701.426.9469
RKing@bepc.com | basinelectric.com

ND Department of Environmental Quality

September 12, 2024

Ryan King
Environmental Coordinator
Basin Electric Power Cooperative
1717 East Interstate Ave.
Bismarck, ND 58503

Re: Basin Electric AVS to Neset - Springbrook Substation Addition in Williams County

Dear Mr. King:

The North Dakota Department of Environmental Quality (Department) has reviewed the information concerning the above-referenced project received at the Department on August 27, 2024, with respect to possible environmental impacts.

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

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

3. Projects disturbing one or more acres are required to have a permit to discharge stormwater runoff until the site is stabilized by the re-establishment of vegetation or other permanent cover. Projects disturbing less than one acre are required to have a permit if the site is part of a larger common plan of development or sale and the larger common plan will ultimately disturb one or more acres. A permit is not needed for projects that disturb less than one acre if they are located one-quarter of a mile or more apart and the area between the projects is not being disturbed. Further information on the stormwater permit may be obtained from the Department's website or by calling the Division of Water Quality at 701-328-5210. Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local stormwater management considerations are addressed.

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

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

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

Sincerely,

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

LDG:ll
Attach.

Construction and Environmental Disturbance Requirements

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

Soils

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

Surface Waters

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

Fill Material

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

ND Department of Trust Lands (Surface Trust)

From: -Info-Land Dept. ROW
To: Ryan King
Subject: [External] External: RE: Basin Electric AVS to Neset - Springbrook Substation Addition - Consultation Request
Date: Thursday, August 29, 2024 10:15:54 AM
Attachments: image002.png
image003.png
We sent you safe versions of your files.msg
ND Department of Trust Lands (Schools Surface Trust) BEPC AVS to Neset - Springbrook Substation Addition.pdf

Hello,

It does not appear that NDDTL manages any surface estate within the proposed project area.

If you have any questions, please contact the Department via emailing landrow@nd.gov.

Sincerely,

North Dakota Department of Trust Lands
landrow@nd.gov • land.nd.gov/rightsofway • 1707 N 9th St • Bismarck, ND 58501

image002.png

From: Ryan King <RKing@bepc.com>
Sent: Tuesday, August 27, 2024 3:04 PM
To: -Info-DTL Surface <dtlsurface@nd.gov>
Subject: Basin Electric AVS to Neset - Springbrook Substation Addition - Consultation Request

Director Stegmiller,

Please see the attached consultation letter requesting review of Basin Electric's Antelope Valley Station to Neset – Springbrook Substation Addition (Project). The Project involves construction of a new 345/115-kV load-serving substation, installation of two new 345-kV structures to tie the existing AVS to Neset 345-kV transmission line to the proposed Springbrook Substation, installation of a 115-kV circuit on approximately 6.8 miles of existing 345-kV structures to connect the proposed Springbrook Substation to the existing Mountrail Williams East Fork Substation, and the installation of a 250-foot microwave tower. The Project is located in Williams County, North Dakota. Due to the Project schedule, I am respectfully requesting a review of the material within 30 days.
If you have any questions or need additional information, please contact me directly at 701-557-5558 or RKing@bepc.com.

Thank you,

Ryan King
Environmental Coordinator
Basin Electric Power Cooperative
1717 E Interstate Avenue | Bismarck, ND 58503
Direct: 701.557.5558 | Cell: 701.426.9469
RKing@bepc.com | basinelectric.com

ND Game and Fish Department

NORTH Dakota | Game and Fish

Be Legendary.

September 18, 2024

Ryan King
Environmental Coordinator
Basin Electric Power Cooperative
1717 East Interstate Avenue
Bismarck, ND 58503

Dear Mr. King:

RE: Proposed Antelope Valley Station to Neset – Springbrook Substation Addition Project

Basin Electric Power Cooperative is proposing to develop the Springbrook Substation, associated transmission lines, and microwave tower in Williams County, North Dakota. The North Dakota Game and Fish 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.

A potentially significant number of migratory birds are killed each year in collisions with communications towers. The US Fish and Wildlife Service developed a list of recommended best practices for siting towers to minimize bird strikes. These guidelines include constructing towers not more than 199 feet above ground level; avoiding construction techniques which require guy wires; and minimizing all light. Where guy wires are required for tower design, the minimum number of guy wires necessary should be used and consideration given to installation of daytime visual markers or bird flight diverters on the guy wires to reduce daytime collisions.

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,

(for) Greg Link
Chief
Conservation & Communications Division

100 North Bismarck Expressway | Bismarck ND, 58504-5095 | (701) 328-6300 | Fax: (701) 328-6352

ND Parks and Recreation Department

NORTH Dakota | Parks & Recreation
Be Legendary.™

September 18, 2024

Ryan King
Basin Electric Power Cooperative
1717 East Interstate Ave.
Bismarck, ND 58503

Re: Basin Electric Power – Antelope Valley Station to Neset-Springbrook Substation Addition

Dear Ryan,

The North Dakota Parks and Recreation Department (NDPRD) has reviewed the above-referenced proposed development of the Springbrook Substation and associated transmission lines, and microwave tower in Williams County, North Dakota.

NDPRD's scope of authority and expertise covers properties that NDPRD owns, leases, or manages; properties protected under Section 6(f) of the Land and Water Conservation Fund (LWCF); rare plants; and ecological communities established through the Natural Heritage Program.

The project does not appear to affect properties NDPRD owns, leases, or manages.

The project does not appear to affect any properties protected under Section 6(f) of the LWCF.

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

We appreciate your commitment to rare plant, animal, and ecological community conservation, management, and inter-agency cooperation. For additional information, please contact Kathy Duttenhefner at 701-328-5370, 701-220-3377 (cell), or kgduttenhefner@nd.gov.

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

Sincerely,
Kathy Duttenhefner
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

ND Transmission Authority

From: Vigesaa, Claire
To: Ryan King
Subject: [External] External: RE: Basin Electric AVS to Neset - Springbrook Substation Addition - Consultation Request
Date: Tuesday, August 27, 2024 5:59:48 PM
Attachments: image001.png

External Email - Use caution clicking links or opening attachments

Ryan,

I am pleased to see this project moving forward, a valuable addition for load growth and system reliability in the region.

Thank you,

Claire

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

From: Ryan King <RKing@bepc.com>
Sent: Tuesday, August 27, 2024 3:25 PM
To: Vigesaa, Claire <cvigesaa@nd.gov>
Subject: Basin Electric AVS to Neset - Springbrook Substation Addition - Consultation Request

Division Director Carranza,

Please see the attached consultation letter requesting review of Basin Electric's Antelope Valley Station to Neset – Springbrook Substation Addition (Project). The Project involves construction of a new 345/115-kV load-serving substation, installation of two new 345-kV structures to tie the existing AVS to Neset 345-kV transmission line to the proposed Springbrook Substation, installation of a 115-kV circuit on approximately 6.8 miles of existing 345-kV structures to connect the proposed Springbrook Substation to the existing Mountrail Williams East Fork Substation, and the installation of a 250-foot microwave tower. The Project is located in Williams County, North Dakota. Due to the Project schedule, I am respectfully requesting a review of the material within 30 days.
If you have any questions or need additional information, please contact me directly at 701-557-5558 or RKing@bepc.com.

Thank you,

Ryan King

Environmental Coordinator
Basin Electric Power Cooperative
1717 E Interstate Avenue | Bismarck, ND 58503
Direct: 701.557.5558 | Cell: 701.426.9469
RKing@bepc.com | basinelectric.com

State Historical Society of North Dakota

September 3, 2024

Ryan King
Basin Electric Power Cooperative
rking@bepc.com

SHSND Ref: 24-9006 Springbrook Substation in portions of [T156N R100W Sections 31-36] in Williams County, North Dakota

Dear Ryan,

We have reviewed SHSND Ref: 24-9006 Springbrook Substation and it is our understanding that the project consists of construction of a new substation with connection to an existing overhead power line, 6.8 miles of new 115-kV circuit on an existing 345-kV transmission line, and the installation of a microwave tower. Therefore, it is our determination that there are no significant sites affected by the new substation provided it takes place in the location and in the manner described in the documentation. For the addition of the 115-kV circuit, there are five sites that should be avoided by construction activities: 32WI2154, 32WI2157, 32WI2161, 32WI2233, and 32WI2234.

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 Preservation Specialist at lbmeidinger@nd.gov or (701) 328-2089.

Sincerely,

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

24-9006

US Army Corps of Engineers

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

September 11, 2024

NWO-2012-02869-BIS

Basin Electric Power Cooperative
Attn: Mr. Ryan King
1717 East Interstate Avenue
Bismarck, North Dakota 58501

Dear Mr. King:

This is in response to your solicitation letter received on August 27, 2024 requesting Department of the Army (DA), United States Army Corps of Engineers (Corps) comments on the proposed Antelope Valley Station to Neset – Springbrook Substation addition and associated transmission line. The project is located in the SE¼NE¼ of Section 36, Township 156 North, Range 100 West, Williams County, North Dakota.

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

Enclosed for your information is the fact sheet for Nationwide Permit 57, Electric Utility Line and Telecommunications Activities. Utility lines are already authorized by Nationwide Permit 57 provided the utility line can be placed without any change to pre-construction contours and all other proposed construction activities and facilities are in compliance with the Nationwide's permit conditions and 401 Water Quality Certification. On Tribal Lands, Water Quality Certification is denied for all Nationwide Permits. Applicants must work with EPA to obtain individual water quality certification. Please note the pre-construction notification requirements on page 2 of the fact sheet. If a project involves any one of the seven notification requirements, the project proponent must submit a DA application. Furthermore, a project must also be in compliance with the "Regional Conditions for Nationwide Permits within the State of North Dakota", found on pages 23 thru 30 of the fact sheet.

In the event your project(s) requires approval from the U.S. Army Corps of Engineers and cannot be authorized by Nationwide Permit(s), a Standard or Individual Permit will be required. A project that requires a Standard or Individual Permit is intensely reviewed and will require the issuance of a public notice. A Standard or Individual

Permit generally requires a minimum of 120 days for processing but based on the project impacts and comments received through the public notice may extend well beyond 120 days.

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

If any of these projects require a Section 404 permit, please complete and submit the enclosed Department of the Army permit application (ENG Form 6082) to the U.S. Army Corps of Engineers, North Dakota Regulatory Office, 3319 University Drive, North Dakota 58504 or to the email address below. If you are unsure if a permit is required, you may submit an application; include a project location map, description of work, and construction methodology.

The North Dakota Regulatory office prefers that all submissions are sent electronically to the following email address: CENWO-OD-RND@usace.army.mil instead of a hard copy by mail. Please split large attachments (>25 MB) into multiple emails if needed.

Please refer to identification number NWO-2012-02869-BIS in any correspondence concerning this project. If you have any questions, please contact Jeremy Nygard at U.S. Army Corps of Engineers, North Dakota Regulatory Office, 3319 University Drive, Bismarck, North Dakota 58504-7565, by email at Jeremy.S.Nygard@usace.army.mil, or telephone at (701) 255-0015 X 2006. For more information regarding our program, please visit our website at http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/NorthDakota.aspx.

Sincerely,

Benjamin D. Reile

For
Benjamin N. Soiseth
Chief, North Dakota Section

Enclosure

US Fish and Wildlife Service

United States Department of the Interior

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

September 11, 2024

In reply, please refer to:
Antelope Valley to Neset – Springbrook Substation Addition

Ryan King, Environmental Coordinator
Basin Electric Power Cooperative
Via email to: RKing@bepc.com

Dear Mr. King,

Thank you for the opportunity to review and provide comments on Basin Electric Power Cooperative's (BEPC) proposed Antelope Valley to Neset – Springbrook Substation Addition Project. Based on our initial review of this project, there are U.S. Fish and Wildlife Service (FWS) trust wildlife resources along the proposed project route. Therefore, please find the information below to assist you in minimizing impacts to these resources:

1. General Wildlife Recommendations – Please refer to our standard buffer and timing document describing our general recommendations for trust resources that may be present in the vicinity of the Project.
2. For compliance with the Endangered Species Act, please consider using the Information for Planning and Consultation (IPaC) database (http://ecos.fws.gov/ipac). The database provides guidance to help determine if endangered species may be present within the action area, and if the project and associated actions may affect listed species. The North Dakota Ecological Services webpage (https://www.fws.gov/office/north-dakota-ecological-services/library) contains step-by-step guidance for navigating IPaC and determination keys that you may choose to use.
3. Bald and Golden Eagles - To understand the distribution of bald and golden eagles along the project alignment, which are protected under the Bald and Golden Eagle Protection Act (BGEPA; 16 U.S.C. 668–668d). The BGEPA, enacted in 1940 and amended several times, prohibits take of bald eagles and golden eagles, including their parts, nests, young, or eggs, except where otherwise permitted pursuant to federal regulations. Incidental take of eagles from actions such as electrocutions from power lines or wind turbine strikes are prohibited unless specifically authorized via an eagle incidental take permit from US Fish and Wildlife Service (Service). The Service has developed guidance for the public regarding means to avoid take of bald and golden eagles:
    - The 2007 *National Bald Eagle Management Guidelines* serve to advise landowners, land managers, and others who share public and private lands with bald eagles when and under what circumstances the protective provisions of BGEPA may apply. They provide conservation recommendations to help people avoid and/or minimize such impacts to bald eagles, particularly where they may constitute "disturbance," which is prohibited by the BGEPA. https://www.fws.gov/sites/default/files/documents/national-bald-eagle-management-guidelines.pdf

In 2024, the Service has also developed new permit regulations under BGEPA:

- Eagle permit regulations, as allowed under BGEPA, were promulgated by the Service in 2009 (74 FR 46836; Sept. 11, 2009), revised in 2016 (81 FR 91494; Dec. 16, 2016), and again in 2024 (89 FR 9920; Feb. 12, 2024). Generally, these regulations authorize the limited take of bald and golden eagles where the take to be authorized is associated with otherwise lawful activities. The regulations also establish permit provisions for intentional take of eagle nests where necessary to ensure public health and safety, in addition to other limited circumstances. The 2024 revisions are intended to increase the efficiency and effectiveness of permitting, facilitate and improve compliance, and increase the conservation benefit for eagles. They include a new system of general permits in addition to the specific-permit situations the Service has authorized in the past. These general permits are designed for situations with low risks to eagles and are an alternative approach to authorize certain wind-energy generation projects, power-line infrastructure, activities that may disturb breeding bald eagles, and bald eagle nest take. The Service will continue to review specific permits for situations that have high or uncertain risks to eagles, thus meeting the preservation standard for eagles. https://www.fws.gov/program/eagle-management

We also recommend contacting Sandra Johnson, Conservation Biologist with the North Dakota Game and Fish Department at sajohnson@nd.gov for historic locations of bald eagles in the vicinity of the project.

4. Dakota skipper- The proposed route for the 115-kV line goes through potentially suitable Dakota skipper habitat on the north end of Sections 33 and 34 in Township 156N, Range 100W. The Service understands the proposed line will be constructed entirely within existing structures, but should suitable habitat exist within or adjacent to the Project corridor there is still risk of potential direct or indirect effects to this species. To quantity potential effects, we recommend delineating suitable habitat along the corridor of the proposed route. Disturbance to delineated habitat within the corridor, and suitable habitat within a half mile of the project corridor should be avoided. A buffer of 250m around delineated habitat should be avoided during the Dakota skipper flight period. If suitable habitat cannot be avoided, then presence/absence surveys should to be conducted by a permitted surveyor to determine habitat occupancy.
5. Whooping crane- In the broader region, there is increasing development within the whooping crane migratory corridor and the Service has concerns that cumulatively these development projects are reducing the recovery potential for this species. The closest historical observation is approximately 10 miles from the proposed route, but the Project would cross through the whooping crane migratory corridor with high habitat suitability immediately adjacent to the proposed Project. Without a federal nexus, we recognize that project proponents of proposed transmission facilities that are within the migratory corridor for the whooping crane have questions and concerns on ESA compliance. We recommend the following considerations and minimization measures to analyze and reduce effects to the whooping crane:
    - Within a 2km buffer from the proposed Project centerline, quantify potential impacts to habitat using the whooping crane habitat suitability model developed by Neimuth et al. 2018 https://pubs.usgs.gov/publication/70196575, available for download at: https://ecos.fws.gov/ServCat/Reference/Profile/148840. Depending on the level of impacts to suitable habitat, habitat mitigation may be recommended.
    - Based on previous legal reviews of transmission lines with whooping crane impacts, clearly document indirect effects of other development that may result from the Project. This may include, but is not limited to, a description of power generation projects that

may interconnect with the project, and grid upgrades that may be needed to support the additional transmission capacity.
    - Mark all new, replacement, or upgraded lines within 1.0 mile of potentially suitable habitat and an equal amount of existing line within 1.0 mile of potentially suitable habitat according to the Service recommendations described in APLIC 2012. Monitor and maintain the markers in perpetuity to ensure effectiveness.
6. Migratory birds- Grassland habitat appears to be impacted by project development. All suitable areas should be surveyed for ground nesting birds if ground disturbing activities will be conducted during nesting season. Any nests found will require a buffer in place around the nests. Buffer distance can be discussed with the North Dakota Field Office at the time the nests are found.

We appreciate your efforts to ensure the conservation of listed species as part of our joint responsibilities under the ESA. If changes are made in the project plans or operating criteria, or if additional information becomes available, the Service should be informed so that the above determinations can be reconsidered. We appreciate the opportunity to provide comments. If you have any questions on these comments, please contact Seth Jones at seth_jones@fws.gov, or myself at luke_toso@fws.gov.

Sincerely,

LUKE TOSO

Digitally signed by LUKE TOSO
Date: 2024.09.11 06:50:54 -05'00'

Luke Toso
Deputy Field Supervisor
North Dakota Field Office