

**Oliver III Transmission Line  
Oliver Wind III, LLC  
Oliver and Morton Counties, North Dakota**

**Consolidated Application to the North Dakota Public Service  
Commission for a Waiver or Reduction of Procedures and Time  
Schedules and Certificate of Corridor Compatibility and Transmission  
Facility Route Permit**



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- Appendix A Excerpt of NextEra Energy, Inc.'s 2015 Corporate Responsibility Report
- Appendix B Agency Notification Letters and Responses

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## 1.0 INTRODUCTION

Oliver Wind III, LLC (Oliver Wind III or the Applicant), a wholly owned, indirect subsidiary of NextEra Energy Resources, LLC (NEER), is submitting this Application for a Certificate of Corridor Compatibility and Transmission Facility Route Permit to construct the Oliver III Transmission Line (proposed Project). The proposed Project consists of approximately 4.5 miles of a new 230-kilovolt (kV) overhead transmission line on private property in Oliver and Morton counties, North Dakota, as shown in **Figure 1**. The proposed Project also includes a new 5-acre switchyard (Minnkota switchyard) that will be constructed at the northern terminus of the transmission line.

On April 20, 2011, in Case Number PU-09-724, the North Dakota Public Service Commission (Commission) issued Certificate of Site Compatibility for a Transmission Facility Corridor No. 117 and Route Permit No. 127 to Oliver Wind III for approximately 9.5 miles of 230 kV electric transmission line and associated facilities to be located in Morton and Oliver counties, North Dakota. The transmission line and associated facilities as authorized in Case No. PU-09-724 have not been constructed. Due to significant changes in the transmission line corridor, route, and associated facilities as proposed in this Application; Oliver Wind III respectfully requests that the proposed transmission line corridor, route and associated facilities as set forth in this Application be substituted for and supersede those as approved in Case No. PU-09-724.

The proposed Project will connect the proposed Oliver III Wind Energy Center to the electrical grid via a tap to the existing Minnkota Power Cooperative, Inc. (Minnkota) Center to Mandan 230kV Overhead Transmission Line. The Oliver III Wind Energy Center is a proposed wind farm consisting of up to 48 wind turbine generators to be located in Oliver and Morton counties, North Dakota. The wind energy facility must be permitted separately, and Oliver III Wind is planning to submit a separate Application for a Certificate of Site Compatibility to the Public Commission in February 2016.

NEER, through its affiliates, develops renewable projects throughout the United States and Canada. NEER is the largest generator of wind-powered electricity in North America, with nearly 11,300 megawatts (MW) of capacity in 19 states and Canada as of December 2015. In North Dakota specifically, NEER, through its affiliates, owns and operates 851 MW of wind generation and operates an additional 139 MW. NEER designs, constructs, and operates its facilities in an environmentally sound and responsible manner. Attached as **Appendix A**, please find the sections from NextEra Energy, Inc.'s 2015 Corporate Responsibility Report that describe NextEra's environmental accountability, management, and stewardship policies that are intended to:

- Design, construct, operate and maintain our facilities in an environmentally sound and responsible manner;
- Prevent pollution, minimize waste and conserve natural resources;
- Avoid, minimize and/or mitigate impacts to habitat and wildlife; and

- Engage stakeholders to build trust and partner toward common goals for environmental stewardship and protection.

## 1.1 Compliance with the Energy Conversion and Transmission Facility Siting Act

The North Dakota Energy Conversion and Transmission Facility Siting Act (Siting Act) requires applications for a Certificate of Corridor Compatibility and Route Permit (Corridor Certificate and Route Permit) to meet the criteria set forth in North Dakota Century Code (NDCC) Chapter 49-22 and North Dakota Administrative Code (NDAC) Article 69-06. Consistent with these requirements, the Applicant has located and designed the proposed Project to minimize potential environmental impacts and utilize existing corridors, field lines, and gaps between crop fields to the extent practicable.

The Application presents information required by the Siting Act, including the consideration of the exclusion areas, avoidance areas, selection criteria, and policy criteria set forth in NDAC § 69-06-08-02. In addition, transmission line design and technical information have been provided to allow a thorough evaluation of the proposed Project.

### 1.1.1 Application Format

This application generally follows the format set forth in the Commission Application Guidelines for a Certificate of Corridor Compatibility (Guidelines), promulgated pursuant to the Siting Act. **Section 1** provides an overview of the Application. **Section 2** requests waivers of certain procedures and time schedules. **Sections 3 through 8** of the Application present the analyses of the proposed Project and demonstrate how the proposed Project is consistent with the Commission’s statutes and regulations.

**Table 1** outlines the information required to fulfill the requirements for an Application for a Certificate of Corridor Compatibility and Application for a Transmission Facility Route Permit based on the Siting Act (NDCC Chapter 49-22) and NDAC Chapter 69-06, and identifies where these requirements are addressed in this Application.

**Table 1. Certificate of Corridor Compatibility and Route Permit Checklist**

Code and Subsection	Description	Application Section
<b>Section A. Description of the Facility</b>		
NDCC § 49-22-08(a) NDCC § 49-22-08.1(a) NDAC §§ 69-06-05-01(2)(a)(1)-(3)	Type of facility proposed, purpose of the facility, and technology to be deployed	1.0, 3.0
NDAC §§ 69-06-05-01(2)(a)(4)-(6)	Type, source, and final destination of the product to be transmitted by the proposed facility.	3.1, 3.2

**Table 1. Certificate of Corridor Compatibility and Route Permit Checklist**

Code and Subsection	Description	Application Section
NDCC § 49-22-08(a) NDCC § 49-22-08.1(a) NDAC § 69-06-05-01(2)(a)(7)	The proposed size and design and any alternate size or design that was considered, including: (a) The width of right of way; (b) The approximate length of 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 general location of any new associated facilities.	1.0, 3.1, 3.2, 3.3, 3.4
NDAC § 69-06-05-01(2)(b)	The anticipated time schedule for accomplishing major events, including: (1) Obtaining the certification of corridor compatibility; (2) Obtaining the route permit; (3) Completing right-of-way acquisition; (4) Starting construction; (5) Completing construction; (6) Testing operations; and (7) Commencing operations.	3.5, <b>Table 4</b>
NDCC § 49-22-08(b) NDAC § 69-06-05-01(2)(c)	<b>Section B. Studies - 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.</b>	Agency correspondence included in <b>Appendix B, Studies Underway</b>
NDCC § 49-22-08(c)	<b>Section C. Need For Facility</b>	4.0
NDAC § 69-06-05-01(2)(d)	An analysis of the need for the proposed facility based on present and projected demand for the product transmitted by the facility, including the most recent system studies supporting the analysis of the need.	4.1
NDAC § 69-06-05-01(2)(e)	A description of any feasible alternative methods of serving the need.	4.3
NDCC § 49-22-08(e) NDCC § 49-22-08.1(b)	<b>Section D. Location</b>	3.1, 3.2, 3.3, 3.4, <b>Table 2, Table 3</b>
NDAC §§ 69-06-05-01(2)(f), (g)	Select a study area, which includes the proposed corridor, of sufficient width to enable the Commission to evaluate the factors addressed in Section 49-22-09, NDCC. 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.	3.3, <b>Figures 1–3</b>

**Table 1. Certificate of Corridor Compatibility and Route Permit Checklist**

Code and Subsection	Description	Application Section
NDCC § 49-22-08(h) NDCC § 49-22-08.1(c)	An evaluation of the proposed corridor/route with regard to the applicable criteria established pursuant to section 49-22-05.1: Except for transmission lines in existence before July 1, 1983, areas within five hundred feet [152.4 meters] of an inhabited rural residence must be designated avoidance areas. The five hundred foot [152.4 meter] avoidance area criteria for an inhabited rural residence may be waived by the owner of the inhabited rural residence in writing. The criteria may also include an identification of impacts and policies or practices which may be considered in the evaluation and designation process.	5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, <b>Tables 5–8</b>
NDCC § 49-22-08(h) NDCC § 49-22-08.1(c) NDAC § 69-06-05-01(2)(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: <ol style="list-style-type: none"> <li>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.</li> <li>2. The effects of new energy conversion and transmission technologies and systems designed to minimize adverse environmental effects.</li> <li>3. The potential for beneficial uses of waste energy from a proposed energy conversion facility.</li> <li>4. Adverse direct and indirect environmental effects which cannot be avoided should the proposed site or route be designated.</li> <li>5. Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.</li> <li>6. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.</li> <li>7. The direct and indirect economic impacts of the proposed facility.</li> <li>8. 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.</li> <li>9. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.</li> <li>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.</li> <li>11. Problems raised by federal agencies, other state agencies, and local entities.</li> </ol>	8.0
NDAC § 69-06-05-01(2)(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.	1.0, 6.0, <b>Appendix A</b>
NDCC § 49-22-08(f) NDAC § 69-06-05-01(2)(j)	Identify and map the criteria that led to the proposed corridor location within the study area.	5.0, 5.1, 5.3, 5.4, 5.5, 5.6, 6.0, <b>Tables 5–8, Figure 6</b>

**Table 1. Certificate of Corridor Compatibility and Route Permit Checklist**

Code and Subsection	Description	Application Section
NDAC § 69-06-08-02	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: <ol style="list-style-type: none"> <li>1. Exclusion areas;</li> <li>2. Avoidance areas;</li> <li>3. Selection criteria;</li> <li>4. Policy criteria.</li> </ol>	5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, <b>Tables 5–8</b>
NDAC § 69-06-05-01(2)(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.	5.0, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6
NDCC § 49-22-08(g) NDCC § 49-22-08.1(d) NDAC § 69-06-05-01(2)(l)	Discuss the general mitigative measures that will be taken to minimize adverse impacts which result from the location, construction, and operation of the facility.	6.1, 6.2, 6.3
NDCC § 49-22-08.1(e)	A description of the right-of-way preparation and construction and reclamation procedures.	3.7
NDCC § 49-22-08.1(f)	A statement setting forth the manner in which: <ol style="list-style-type: none"> <li>(1) The utility will inform affected landowners of easement acquisition, and necessary easement conditions and restrictions.</li> <li>(2) The utility will compensate landowners for easements, without reference to the actual consideration to be paid.</li> </ol>	3.6
NDAC § 69-06-05-01(2)(m)	List the qualifications of the people in the various disciplines that contributed to the corridor location study.	9.0
NDAC §§ 69-06-05-01(2)(n), (o), (q)	Maps <ol style="list-style-type: none"> <li>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.</li> <li>o. An eight and one-half-inch by eleven-inch black and white map suitable for newspaper publication depicting the site area.</li> <li>q. Map and GIS requirements. The Applicant shall provide information that is complete, current, presented clearly and concisely, and supported by appropriate references to technical and other written material available to the commission. Data must be submitted in the ESRI shape file or geodatabase format.</li> </ol>	<b>Figures 2, 3, and 6</b>  A map for newspaper publication will be provided under separate cover.  Shapefiles provided on CD.

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## **2.0 WAIVER OF PROCEDURES AND TIME SCHEDULES**

The Applicant requests that the Commission waive certain procedures and reduce certain time schedules required by the Siting Act and in the Commission's regulations to accomplish the actions requested herein. These include, but are not limited to, the following:

1. Allow combination of the certificate of corridor compatibility application and route permit application processes into one application;
2. Waive, pursuant to NDCC §§ 49-22-07.2 and 49-22-13, and NDAC § 69-06-01-02 and Chapter 69-06-06, provisions of NDCC §§ 49-22-08(5), 49-22-08.1(5), 49-22-13, and NDAC § 69-06-01-02 that require separate filings of such applications, separate notices of such applications, separate hearings on such applications, separate orders on such applications; and certain procedures and time schedules as set forth in said statutes and rules;
3. Approve a corridor 250 feet in width;
4. Hold one consolidated public hearing on this Application;
5. Find that the proposed facilities are of such design, length, location, and purpose that they will produce minimal adverse effects; and
6. Designate and approve the requested facilities as identified in this Application and issue the appropriate Corridor Certificate and Route Permit.

Chapter 69-06-06 of the NDAC requires that a request for waiver of procedures set forth a factual basis demonstrating that the proposed facility is of such length, design, location, or purpose that it will produce minimal adverse effects. As demonstrated herein, the environmental and cultural resource studies and reports commissioned by the Applicant demonstrate that there will be minimal adverse effects by construction and operation of this transmission line project. As a result, there is substantial justification for the requested waivers and/or reduction of time schedules and procedures.

The Applicant therefore respectfully requests that the Commission grant the requested waivers and/or reduction of procedures and time schedules, and render an expeditious decision approving the requested certificate of corridor compatibility and route permit.

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### 3.0 PROJECT DESCRIPTION

#### 3.1 Project Location

The proposed Project will connect the proposed Oliver III Wind Energy Center’s collection substation that will be constructed east of 33rd Avenue and adjacent to 32nd Street in Section 10, Township 140 North, Range 83 West, with Minnkota’s existing Center to Mandan 230kV overhead transmission line. A tap will be constructed at the proposed Minnkota switchyard at the point of interconnection (northeast quarter of Section 23, Township 141 North, Range 83 West) (**Figure 2** and **Figure 3**). The proposed Project is needed to inject energy generated by the Oliver III Wind Energy Center into the electric grid.

Terms associated with the Project and impact analysis are defined in **Table 2** and shown on **Figures 2 and 3**.

**Table 2. Project Terms**

Term	Definition/Description
Study Area	The area that was studied to determine the best route for the proposed Project. The Project Study Area is one mile wide.
Project Corridor	In accordance with NDCC 49-22-03(4), the Project Corridor is an area of land in which a designated route may be established for a transmission facility. The Project Corridor is 250 feet wide.
Project Route	In accordance with NDCC 49-22-03(10), the Project Route is the location of a transmission facility within a designated corridor. The Project Route is also referred to as the centerline.
Right-of-Way	An area around the Project Route where easements will be acquired. The typical easement that will be used during construction and maintained during the life of the proposed Project is 150 feet wide

#### 3.2 Project Design and Product Delivery

The approximately 4.5-mile, single-circuit, alternating current 230kV transmission line will be constructed using steel monopole structures. The average height of the single-pole structures will range from 110 to 130 feet depending on final engineering design (**Figure 4**). The maximum span between structures will be 1,100 feet and will vary depending on geological or engineering constraints identified during final design. The typical easement that will be used during construction and maintained during the life of the proposed Project, or right-of-way (ROW), is 150 feet wide. The total cost of constructing this transmission line and associated facilities is estimated at \$11.4 million.

Guyed structures will be required at approximately four turns. Depending on the angle, up to 16 guy wires may be required per turn, each up to 135 feet from the pole structure (**Figure 5**). Specialty structures and foundations may be required in certain circumstances.

The proposed Project will allow the Oliver III Wind Energy Center to contribute approximately 100 MW of renewable energy to the power grid via the Minnkota switchyard, which will connect the

Oliver III Wind Energy Center to the Center to Mandan 230kV overhead transmission line. The proposed Minnkota switchyard (**Figure 5**) will be located on approximately 5 acres of land at the northern terminus of the proposed Project in the northeast quarter of Section 23, Township 141 North, Range 83 West. All structures within the Minnkota switchyard will be constructed in steel with the exception of the control building which will be constructed of wood with steel siding. A total of 8 new structures will be constructed west of the Minnkota switchyard running to the tap on the existing Center to Mandan 230kV line, and a total of 3 new structures will be constructed to the east to connect the proposed Project transmission line to the Minnkota switchyard. Two of the new structures on the east side of the Minnkota switchyard will have 2 guy wires for each structure (**Figure 5**). The Minnkota switchyard will be fenced.

The construction of the proposed Project will occur within the Project Corridor identified in Section 3.3. The Project Route (centerline of proposed transmission line pole locations) was selected after addressing the factors identified in NDCC § 49-22-09 and pursuant to the criteria in NDAC § 69-06-08-02 and is depicted on **Figure 1**.

### 3.3 Project Corridor

The Project Corridor is the area surveyed for cultural resources, which is generally 250 feet in width, although the proposed Project ROW that will be acquired throughout the 4.5-mile length of the Project Corridor will typically be only 150 feet in width.

The Applicant developed the Project Corridor based on identifying interested landowners between the proposed Oliver III Wind Energy Center collection substation and the existing Center to Mandan 230kV overhead transmission line. The Applicant also considered the exclusion and avoidance areas set forth in NDAC § 69-06-08-02 in selecting the Project Corridor. For example, the Applicant sought to avoid residential areas and recreation and cultural resources to the extent practicable (**Figure 6**). Documented archeological sites are discussed in **Section 6.1**. Impacts to exclusion and avoidance areas that occur along the Project Route, including wetlands, can be easily avoided or minimized by placing poles outside these areas.

The Project Corridor is rural and primarily composed of a mixture of cropland and grassland. It is located on privately owned land along existing roadways, and field lines to the extent feasible. The legal land descriptions for parcels within the Project Corridor are provided in **Table 3** and represented on **Figure 2** and **Figure 3**.

**Table 3. Project Corridor Land Description**

Township	Range	Sections
140N	83W	3, 10
141N	83W	23, 24, 25, 26, 36

### 3.4 Project Route

The Applicant identified the Project Corridor and Project Route after considering the exclusion and avoidance criteria outlined in NDAC § 69-06-08-02 (**Section 5.0** of this Application) and after considering public and agency input as described in **Section 7.0** of this Application.

The Project Route was selected based on several additional considerations, including:

- Minimizing total length and construction costs.
- Minimizing impacts on residents, including (but not limited to) displacement, noise, aesthetics, recreation, agricultural production, and public services.
- Consideration of effects on public health and safety.
- Offsetting existing ROW (roadway or other utility ROW) or field lines to minimize impacts on current land use and to comply with Morton County requirements. (At the time this application was prepared, Oliver County did not have established setbacks relevant to any of the components of the wind energy facility.)
- Minimizing effects on archaeological and historic resources.
- Minimizing effects on wetlands and surface waters.
- Minimizing effects on wildlife, rare or endangered species and unique natural resources.

**Figure 6** identifies the proposed Project Route relative to the Project Corridor and exclusion and avoidance criteria. The legal descriptions of the Project Route location are provided in **Table 4**.

**Table 4. Project Route Land Description**

Township	Range	Sections
140N	83W	3, 10
141N	83W	23, 24, 25, 36

### 3.5 Project Schedule

The preliminary Project schedule provided in **Table 5** is based on information known as of the date of this filing. The operation date is dependent upon permitting, equipment deliveries, and other development activities. The Applicant is targeting construction on the Project July 2016, provided all pre-construction permits and approvals have been obtained.

**Table 5. Preliminary Project Schedule**

Milestone	Date
Completion of Construction Easement Acquisition	January 2016
Final Transmission Line Design	May 2016
Material Procurement	May 2016
Certificate of Corridor Compatibility and Route Permit	July 2016
Construction Start	July 2016
Testing Operations	November 2016
In-Service Operations (Commissioning)	December 2016

### **3.6 Easement Acquisition**

The Applicant has secured voluntary easements with landowners along the Project Route. The Applicant will compensate landowners for easements based on the land within the construction easement and for facilities (structures and guy wires) placed in the Project Route. The easement agreement describes easement conditions and restrictions. The 5-acre Minnkota switchyard will be purchased.

### **3.7 Project Construction**

Project construction activities will occur in the following general order: completion of pre-construction studies and surveys, ROW preparation, installation of transmission structures, conductor stringing, and restoration. Each step is described in greater detail below.

Pre-construction activities include studies and surveys to support permitting and construction planning. Environmental and cultural resources are identified by a combination of desktop studies and field surveys. Resources investigated include but are not limited to those relevant to exclusion and avoidance criteria outlined in NDAC § 69-06-08-02 and as identified by public and agency input. The Applicant will submit an Application (Notice of Intent) for a National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction Activity, accompanied by a Stormwater Pollution Prevention Plan (SWPPP), to the North Dakota Department of Health. When granted, the permit will specify conditions with erosion control measures to be followed throughout the construction process. All areas to be disturbed and the entire ROW are typically surveyed. Initial survey work typically includes collection of aerial photography, survey control, route centerline location, profile surveys, and access surveys. Additional pre-construction activities include engineering and design of the transmission line, micro-siting of pole locations, utility connection studies, land procurement, and procurement of structures and materials. Analysis of soil properties may be required at some structure locations for engineering purposes. Soil borings will be taken by an experienced geotechnical testing laboratory. The geotechnical drill rig will need access to the test sites.

The ROW is prepared before the structures are installed. Because the Project Route is located in agricultural land along existing road ROW and field lines, there are very few obstructions, so minimal ROW preparation will be necessary. In those few areas where there is tree and shrub growth, all trees and tall shrubs will be cut and removed from the 150-foot ROW, unless future growth is not anticipated to interfere with the operation or maintenance of the transmission line. Vegetation remaining within the ROW will be monitored regularly and trimmed so that it does not exceed safety provisions. Herbicides may be used in limited locations within the ROW to remove or control the growth of tall vegetation. Herbaceous and small woody plants outside of access routes and established disturbance areas around each structure will not be disturbed.

Construction activities within the ROW will be concentrated at structure locations. The anticipated area of disturbance at each structure site during construction will be approximately 0.5 acre, and will include area required for soil analysis, limited grading, setting of structures, and conductor stringing. The structures will be designed for installation at existing grades; therefore, grading will

generally not be required at structure sites. Limited grading may occur where necessary to ensure the safety of construction crews or for equipment access such as digger/derrick trucks to auger holes for the structures, a crane for structure setting, crew vehicles, and bucket trucks for wire stringing and clipping operations.

Ground disturbance will occur during the setting of transmission structures. Boring equipment including a truck-mounted auger will be used to bore holes for setting the transmission poles and dead-end foundations. Pole borings will be approximately 20 feet deep and 5 feet in diameter. Soil removed during boring activities will be spread around the base of the pole. The footings of each will be backfilled with 1.5 inch diameter rock and tamped into place to prevent structure movement or settling. Foundations for self-supporting dead-end structures (if any are utilized according to the final design) will be approximately 25 to 30 feet deep and be approximately 7 feet in diameter. Dead-end foundations will be constructed of reinforced concrete with pre-fabricated anchor bolt cases placed in the bore holes.

Temporary staging areas will be located within the ROW and will be limited to the structure site areas for structure laydown and framing. The structures will be transported to the erection sites on flatbed trucks and assembled. Final structure assembly and hardware placement will be completed using cranes and bucket trucks. Soil removed during boring activities will be sloped around the dead-end structure after installation or in adjacent upland areas.

After all structures have been erected, conductors and ground wires will be installed. Conductors will be installed by establishing stringing setup areas within the ROW, located approximately every 2 miles along the proposed Project Route. Conductors will be installed between setup areas using a "controlled tension method" that ensures that the cable comes off the reel at a constant tension without backlashes. Conductor stringing operations will also require brief access to each structure to secure the conductor wires to the insulators or shield wire clamps once final line sag is established. Stringing equipment generally consists of wire pullers, tensioners, conductor reels, shield wire reels, and stringing blocks. Heavy truck-mounted winches that also carry reels of conductor and cable will be used for pulling and tensioning work. Stringing operations consist of pulling lightweight cables or ropes through the stringing sheaves located at every structure site. This cable or rope will be used to pull the conductors through the sheaves under sufficient tension to keep the conductor from coming into contact with the ground. Temporary guard or clearance poles will be installed over existing distribution or communication lines, roads, or other obstructions after any necessary notifications are made and/or permits are obtained. These poles will ensure that conductors will not obstruct traffic or come into contact with existing energized conductors or other cables, and they protect the conductors from damage. Once a section of the transmission line has been installed, temporary structures will be removed and holes will be backfilled. Bird flight diverters will be installed along sections of the transmission line that are located within 1 mile of potentially suitable stopover habitat for whooping cranes.

After construction, all temporary facilities, including staging areas, will be removed, and debris will be removed and disposed of properly. Debris associated with the transmission line construction may include construction materials such as packaging material, insulator crates, conductor reels,

and wrapping. This debris may also include excess excavated soil and removed vegetation. Materials with salvage value, including conductor reels, unused conductor and hardware, poles, and other materials, will be removed from the site for reuse. Excess soil and vegetation will be distributed along the transmission ROW in accordance with approved SWPPP conditions, but will not be placed in wetlands or other aquatic resources. Solid waste will be temporarily stored within the ROW or within the temporary construction easements and then transported to appropriate disposal facilities. Debris will be disposed of in accordance with local, state, and federal regulations.

All laws and regulations will be followed throughout and after the construction period including those related to dust suppression and erosion control. In accordance with the approved SWPPP, disturbed areas will be restored to their original condition to the maximum extent practicable. Restoration activities will include grooming, reseeding, and replacing trees and shrubs as necessary in disturbed areas with vegetation like that which was removed. The Applicant will incorporate a tree replacement policy based on the Commission's Tree and Shrub Mitigation Specifications.

## **4.0 NEED FOR FACILITY**

### **4.1 Need Analysis**

The proposed location of the Oliver III Wind Energy Center collection substation is approximately 4.5 miles from the Center to Mandan 230kV overhead transmission line. The Oliver III transmission line is required to transmit the energy to the electrical grid. As discussed in Oliver Wind III's Application for a Certificate of Site Compatibility, Oliver Wind III is currently negotiating a power purchase agreement for this Project.

### **4.2 Description of Studies Developed**

Final design of the proposed Project is dependent upon several factors, including landowner input, on-site pre-construction surveys, and agency consultation. The Applicant identified the preliminary location of the Project Route and Project Corridor based on desktop analyses, site visits, and agency consultation. Results of environmental and cultural studies are discussed in **Section 6.0**.

### **4.3 No Action and Feasible Alternative Methods**

As discussed in **Section 4.1**, the proposed location of the Oliver III Wind Energy Center's collection substation is approximately 4.5 miles south of Minnkota's Center to Mandan 230kV overhead transmission line. There is no existing infrastructure connecting the proposed location of the Oliver III Wind Energy Center to existing transmission. The location of the Oliver III Wind Energy Center was identified as an optimal site from wind resource, transmission, landowner participation, economic, and environmental perspectives. Therefore, there is no feasible alternative method to serving the facility need.

### **4.4 Ten-Year Plan**

The Applicant will file a Ten-Year Plan with the Commission by July 1, 2016.

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## 5.0 TRANSMISSION FACILITY CORRIDOR AND ROUTE CRITERIA

The Applicant evaluated a study area (0.5 mile on either side of the Project Route) to determine the best route for the proposed Project. Within this study area, a 250-foot-wide Project Corridor was selected to meet the following exclusion, avoidance, and selection criteria as described in NDAC § 69-06-08-02. The selection criteria were intended to minimize potential land use impacts and environmental impacts as well as to minimize impacts to the public. Policy criteria relate to the Applicant's policies regarding health, safety, labor relations, and coordination with other interests. In addition, design and construction limitations present in the Project Corridor were also factored into identification the proposed Project Route. As described in **Table 2**, the Project Route is the centerline of the transmission line along which structures will be placed, which is identified within the 250 foot-wide Project Corridor.

The Applicant gathered data from several sources to identify the locations of exclusion and avoidance areas and to determine the potential impact of its proposed facility on selection criteria, including field surveys to identify occupied residences, wetlands and water features, and cultural resources. A computerized geographic information system (GIS) was utilized to compile and analyze most of the data. Specific sources included:

- North Dakota Natural Heritage Program dataset on sensitive species and habitats and state parks;
- North Dakota Game and Fish eagle nest data;
- U.S. Fish and Wildlife Service's National Wetland Inventory maps obtained in GIS format;
- Documented cultural resources identified through a Class I cultural resources inventory;
- Residences and homesteads within the corridor provided by a farmstead report from on-site land surveyors and land agents;
- Structures and other constraints (including extractable resources, cemeteries, and communication towers) derived from data obtained from the North Dakota GIS Hub as well as aerial photo interpretation, discussion with landowners, and field verification; and
- Woodlands derived from National Land Cover Database data.

### 5.1 Exclusion Areas

In accordance with NDAC § 69-06-08-02(1), the geographical areas listed in **Table 6** shall be excluded in the consideration of a route for a transmission facility. No exclusion areas are present within the Project Corridor.

**Table 6. Exclusion Areas**

Exclusion Area	Present within 1-mile Study Area	Present within Project Corridor	Adjacent to Project Route	Proposed Buffer
Designated or registered national parks memorial parks; historic sites and landmarks; natural landmarks; monuments; and wilderness areas	No	No	No	No buffer is proposed because no features are identified within the Project Corridor.
Designated or registered state parks; historic sites; monuments; historical markers; archaeological sites; and nature preserves	Yes—5 archaeological sites and 2 site leads	No	No	Oliver Wind III commits to avoid any newly documented sites and the previously-documented cultural resources within the Survey Corridor. Any sites that will be avoided during construction will be fenced along the avoidance buffer perimeter to reduce the potential that they will be inadvertently disturbed. An Unanticipated Discovery Plan will be prepared for the proposed Project outlining the procedure that would be followed to prepare for and address any unanticipated discoveries of cultural resources, including previously undiscovered archeological sites and possible human remains (see Section 6.1).
County parks and recreational areas; municipal parks; and parks owned or administered by other governmental subdivisions	No	No	No	No buffer is proposed because no features are identified within the Project Corridor.
Areas critical to the life stage of threatened or endangered animal or plant species	No designated critical habitat	No designated critical habitat	No designated critical habitat	No buffer is proposed because no features are identified within the Project Corridor.
Areas where animal or plant species that are unique or rare to this state will be irreversibly damaged	No	No	No	No buffer is proposed because no features are identified within the Project Corridor.
Areas within 1,200 feet of the geographic center of the intercontinental ballistic missile (ICBM) launch or launch control facility	No	No	No	No buffer is proposed because no features are identified within the Project Corridor.
Areas within 30 feet on either side of a direct line between ICBM launch or launch control facilities to avoid microwave interference	No	No	No	No buffer is proposed because no features are identified within the Project Corridor.

## 5.2 Avoidance Areas

In accordance with NDAC § 69-06-08-02(2), the Commission will not approve certain avoidance areas as a site for a transmission facility unless the Applicant shows that under the circumstances there is no reasonable alternative. In determining whether an avoidance area should be designated for a transmission facility, the Commission may consider, among other things: the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative sites. There is a small portion of one cultural resources Site Lead present within the Project Corridor (**Table 7**). Field surveys are required to determine if actual features associated with site lead exist in Survey Corridor.

**Table 7. Avoidance Areas**

Avoidance Area	Present within 1-mile Study Area	Present within Project Corridor	Adjacent to Project Route	Proposed Buffer
Designated or registered national historic districts; wildlife areas; wild, scenic or recreational rivers; wildlife refuges; and grasslands	No	No	No	No buffer is proposed because no features are identified within the Project Corridor.
Designated or registered state wild, scenic, or recreational rivers; game refuges; game management areas; forests, forest management lands; and grasslands	No	No	No	No buffer is proposed because no features are identified within the Project Corridor.
Historical resources which are not specifically designated as exclusion or avoidance areas	Yes—2 Native American sites with stone features, 1 Euro-American farmstead, 1 Euro-American stone feature, 2 Euro-American coal mines, 1 indeterminate affiliation stone pile	Yes-A small portion of Site Lead 32MOx0354 is located in the Survey Corridor	Yes- Site Lead 32MOx0354 is located adjacent to Survey Corridor	No buffer is proposed for Site Lead 32MOx0354. Field surveys are required to determine if actual features associated with site lead exist in Survey Corridor.
Areas that are geologically unstable	No	No	No	No buffer is proposed because no features are identified within the Project Corridor.
Within 500 feet of a residence, school, or place of business	Yes – four occupied residences are present within the Study Area	No	No	No buffer is proposed because no features are identified within the Project Corridor.

**Table 7. Avoidance Areas**

Avoidance Area	Present within 1-mile Study Area	Present within Project Corridor	Adjacent to Project Route	Proposed Buffer
Reservoirs and municipal water supplies	No	No	No	Although water pipelines do not constitute an avoidance area, Oliver Wind III will incorporate a buffer of 30 feet in width, 15 feet on each side of center line, of the Southwest Water Authority Pipeline within the Project Corridor.
Water sources for organized rural water districts	No	No	No	No buffer is proposed because no features are identified within the Project Corridor.
Irrigated land	No	No	No	No buffer is proposed because no features are identified within the Project Corridor.
Areas of recreational significance that are not designated as exclusion areas	No	No	No	No buffer is proposed because no features are identified within the Project Corridor.

### 5.3 Selection Criteria

In accordance with NDAC § 69-06-08-02(3), adverse effects resulting from the location, construction, and maintenance of a transmission facility shall be minimized to the extent practicable and shall be managed and maintained at an acceptable minimum. **Table 8** identifies the selection criteria for the Project Corridor and Project Route. Certain resources relevant to selection criteria (wetlands and wooded areas) are shown on **Figure 6**.

**Table 8. Selection Criteria**

Selection Criteria	Potential Adverse Effects
<b>The impact upon agriculture:</b>	
Agricultural production	Areas within the construction easement may be disturbed during field surveys and construction, but will be restored as practicable and landowners will be compensated through an easement payment and for loss of agricultural production.
Family farms and ranches	Areas within the construction easement may be disturbed during field surveys and construction, but will be restored as practicable and landowners will be compensated through an easement payment and for loss of agricultural production.
Land that the owner can demonstrate has soil, topography, drainage, and an available water supply	The Project Corridor is primarily cropland and grassland. No irrigated lands were identified within the Project Corridor.

**Table 8. Selection Criteria**

Selection Criteria	Potential Adverse Effects
that cause the land to be economically suitable for irrigation	
Surface drainage patterns and groundwater flow patterns.	A wetlands and waters survey will be completed in spring 2016. The proposed Project will be built to avoid impacts to surface waters to the extent practicable. Temporarily disturbed areas will be returned to their original contours.
<b>The impact upon:</b>	
Sound-sensitive land uses	Following construction, a minimal amount of sound from the transmission line will occur as a result of corona effects. Corona effects occur when air molecules near conducting wire are ionized due to changes in the electric field intensity at the conductor surface. The noise is most noticeable when conductors are wet as a result of precipitation. For example, for another 230kV transmission line, noise modeling estimated the corona audible to be 15 A-weighted decibels (dBA) in fair weather and 25 to 40 dBA in wet weather at the edges of the ROW (RUS 2013).
The visual effect on the adjacent area	The proposed Project will be visible to landowners and travelers along roadways adjacent to the Project Route. Other high-voltage transmission lines, electric distribution lines, and radio towers are present in the viewshed.
Extractive and storage resources	Oliver Wind III is in the process of negotiating subordination and non-disturbance agreements with coal leaseholders within the Proposed Project. Oliver Wind III has met with the North Dakota Department of Trust Lands to discuss active and future coal mining near the Proposed Project; the North Dakota Department of Trust Lands is not aware of any current or planned lignite mining within the Proposed Project.
Wetlands, woodlands, and wooded areas	A wetland delineation is currently in process; the proposed Project will be built to avoid impacts to surface waters to the extent practicable. The wetland delineation report will be submitted to the Commission when it has been completed. Permanent impacts to jurisdictional wetlands will be minimized as practicable.  Economically important forestry resources are not found in the Project Corridor. A few small patches of trees are present as shelterbelts and in drainage ways and wetlands.
Radio and television reception, and other communication or electronic control facilities	Tall structures such as buildings, communication towers, transmission lines, and wind turbines can create minor obstructions to nearby communications systems. Television reception disruption is not anticipated.
Human health and safety	The proposed Project will be designed and constructed to meet or exceed the standards of the National Electrical Safety Code. Regular maintenance and inspections will be performed during the life of the facility to ensure its continued integrity. The nearest occupied residence is more than 500 feet from the Project Corridor, where electromagnetic fields will be at background levels.  Safety precautions will be taken during construction and line installation.
Animal health and safety	Construction work will be coordinated with landowners to avoid impacts to livestock.
Plant life	The Applicant will avoid existing trees and shrubs as practicable. If impacts to trees and shrubs cannot be avoided, the individual trees/shrubs will be replaced according to the Commission's tree and shrub mitigation specifications. Temporarily disturbed areas will be reseeded.

## 5.4 Policy Criteria

In accordance with Section 69-06-08-02(4), the Commission will give preference to a proposed route that is established based on the following policies and practices with the intent to provide benefit to the area to the maximum extent practicable. **Table 9** summarizes the policy criteria for the Project Corridor and Project Route.

**Table 9. Policy Criteria**

Policy Criteria	Suitable Policy or Oliver Wind III Practice
Location and design	The Applicant has committed to minimizing and mitigating environmental impacts, following the National Electrical Safety Code requirements and policies, designing the system to efficiently transfer electricity, ensuring worker and public health and safety, and constructing facilities to most effectively and efficiently meet its delivery obligations. The Applicant will implement a buffer of 30 feet in width around water pipelines.
Training and utilization of available labor in this state for the general and specialized skills required	The Applicant will use local qualified contractors to provide labor for the proposed Project to the extent practicable.
Economies of construction and operation	The Applicant will use experienced local qualified contractors to the extent practicable. The Applicant has evaluated feasible alternatives and selected a Project Route that minimizes the extent and impacts to the social, economic, and natural environment to the extent practicable.
Use of citizen coordinating committees	No citizen coordinating committees were used for the proposed Project Route or proposed Project Corridor. An open house was held in January 2016 for the Oliver III Wind Energy Center, which included discussion of the possibility of developing the proposed Project. The Applicant has worked with landowners of properties for the proposed Project to avoid or minimize impacts on landowners to the extent practicable.
A commitment of a portion of the transmitted product for use in this state	The proposed Project will transmit energy from the Oliver III Wind Energy Center in Oliver and Morton counties, North Dakota, and inject it into Minnkota's Center to Mandan 230kV overhead transmission line.
Labor relations	No labor relations will be affected by the Project.
The coordination of facilities	The Applicant will avoid impacts to existing infrastructure, other than interconnecting with the existing Center to Mandan 230kV transmission line. The proposed 4.5-mile transmission line will tie in to existing facilities less than 2 miles from the boundary of the Oliver III Wind Energy Center.
Monitoring of impacts	The Applicant and the Engineering, Procurement, and Construction contractor will employ prudent utility practices during construction to monitor soil impacts and segregate topsoil. A stormwater pollution prevention plan will be prepared for the proposed Project.
Utilization of existing and proposed rights-of-way and corridors	The Applicant has routed the transmission line parallel to existing roadways and field lines to the extent practicable.
Other existing or proposed transmission facilities	The Applicant is open to utilizing or paralleling existing utility ROW when siting transmission line routes as practicable.

## **5.5 Design and Construction Limitations**

The location of the collection substation and the location of the connection at the Center to Mandan 230kV overhead transmission line have limited potential corridor locations by dictating the points of terminus for the proposed Project. The Applicant further refined the location of the Project Corridor by identifying interested landowners in the area between the wind project and the interconnection point. Based on these factors, the Applicant selected a study area for the proposed Project of approximately 4.5 miles in length. The Project Route was chosen because it follows existing road ROWs and field lines where practicable. Pursuant to NDAC § 69-06-05-01(2)(j), the proposed location of the proposed Project is the most direct route that also minimizes impacts on the exclusion, avoidance, selection, and policy criteria identified in Section 69-06-08-02. In the evaluation of the study area, the Applicant also considered topography, location of existing transmission facilities (lines and substations), land ownership, and economics. It was necessary to originate the proposed Project at the proposed Oliver III Wind Energy Center collection substation that is proposed to be located in Section 10, Township 140 North, Range 83 West and connect it to Minnkota's Center to Mandan 230kV transmission line, located approximately 4 miles north of the proposed collection substation.

## **5.6 Economic Considerations**

Several economic factors were considered in deciding where to route the proposed Project. Overall, minimizing the length decreases the cost to construct the transmission line because less ROW and materials need to be acquired. Fewer landowner easements need to be obtained for the shorter Project Route. Minimized length also reduces transmission line loss.

The Applicant has and will continue to take steps to minimize any economic damage that might be created by the proposed facility. Landowners will be compensated through an easement payment for any potential loss of land and agricultural production. The Project Route was chosen to follow as straight a line as possible with consideration given to willing landowner participation, constructability, exclusion areas, avoidance areas, and other selected areas.

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## 6.0 ENVIRONMENTAL ANALYSIS

In the evaluation of the study area, the Applicant considered, among other things, topography, location of existing transmission facilities (lines and substations), location of communities and airfields, location of water resources, land ownership, and economics.

Final design of the proposed Project is dependent upon several factors, including landowner input, on-site pre-construction surveys, and agency consultation. The Applicant identified the preliminary location of the Project Route based on several desktop analyses, site visits, and agency consultation.

This section provides a summary of the environmental studies that are being conducted for the Project Corridor and Project Route. Studies that are in progress include:

- Cultural Resources Studies
- Desktop Analysis and Wetlands/Waters of the U.S. Reconnaissance Survey
- Whooping Crane Likelihood of Occurrence Analysis
- Sharp-tailed Grouse Lek Survey

Reports documenting these analyses will be submitted to the Commission once they have been completed.

Each study is summarized below.

### 6.1 Cultural Resources Inventory

Tetra Tech performed a Class I Literature Review for the Survey Corridor plus a 1-mile buffer (i.e., the Study Area) in December 2015. The file review was completed at the State Historical Society of North Dakota (SHSND). The Survey Corridor for the transmission line is defined as a 125-foot buffer centered on the proposed transmission line route for a total corridor width of 250 feet. The literature review identified one site lead in the Survey Corridor and five sites and one site lead within the Study Area (**Table 10**). The northwestern reported boundary of Site Lead 32MOx0354 (former Euro-American coal mine) intersects a small portion of the Survey Corridor north of County Road 140. The sites located in the Study Area include a Euro-American stone alignment (32MO1085), an indeterminate affiliation stone pile (32MO1086), two Native American sites containing stone features (32MO1088 and 32MO1089), and a Euro-American abandoned farmstead (32MO1090). The site lead includes a historic coal mine (32MOx0353). Oliver Wind III will avoid directly impacting all Native American sites including stone features and cultural material scatters.

**Table 10. Previously Recorded Archaeological Sites and Isolates within the Study Area**

Smithsonian Number	Resource Type	Description	Avoidance	Location
32MO1085	Euro-American archaeological	Stone Alignment	Avoid direct impacts to site	Not within Survey Corridor. Within 1 mile of Study Area.
32MO1086	Indeterminate archaeological	Stone Pile	Avoid direct impacts to site	Not within Survey Corridor. Within 1 mile of Study Area.
32MO1088	Native American archaeological	Cairns and Stone Circles	Avoid direct impacts to site	Not within Survey Corridor. Within 1 mile of Study Area.
32MO1089	Native American archaeological	Cairns	Avoid direct impacts to site	Not within Survey Corridor. Within 1 mile of Study Area.
32MO1090	Euro-American archaeological/architectural	Abandoned Farmstead	Avoid direct impacts to site	Not within Survey Corridor. Within 1 mile of Study Area.
32MOx353	Euro-American archaeological	Coal Mine	Avoid direct impacts to site	Not within Survey Corridor. Within 1 mile of Study Area.
32MOx354	Euro-American archaeological	Coal Mine	Avoid direct impacts to site	Within Survey Corridor. Within 1 mile of Study Area.

A Class III Intensive Cultural Resources Inventory of the Survey Corridor is currently underway to identify archaeological resources. Once complete, the Class III Cultural Resources Inventory Report will be submitted to the SHSND for review and concurrence and a summary will be provided to the Commission.

Avoidance buffers will be created for archaeological sites recorded during the pedestrian survey of the Survey Corridor. Oliver Wind III commits to avoid any newly documented sites and the previously-documented cultural resources within the Survey Corridor. Any sites that will be avoided during construction will be fenced along the avoidance buffer perimeter to reduce the potential that they will be inadvertently disturbed.

An Unanticipated Discovery Plan will be prepared for the proposed Project outlining the procedure that will be followed to prepare for and address any unanticipated discoveries of cultural resources, including previously undiscovered archaeological sites and possible human remains. It will provide direction to on-site personnel and their consultants as to the proper procedure to follow in the event that unanticipated discoveries were to be made during construction of the proposed Project. No significant impacts to cultural resources would, therefore, be anticipated from the proposed Project.

In the event that human remains are identified during construction of the proposed Project, work would immediately halt within a minimum of 100 feet of the site and the site would be protected until the SHSND and the North Dakota Indian Affairs Commission are consulted, in addition to any involved Tribes that express interest in the proposed Project and identify a potential impact.

If confirmed or potential human skeletal remains are discovered, the Oliver and Morton County Sheriff's offices will be contacted. The Sheriff will call the North Dakota State Forensic Examiner

to determine whether the remains are associated with a crime scene. If the remains are determined not to be part of an active crime scene or investigation, the North Dakota Chief Archaeologist will be contacted.

## **6.2 Wetlands/Waters of the U.S. Survey**

Wetlands are an important natural resource providing a number of critical ecosystem functions. Some of these functions include flood flow attenuation, streambank stabilization, discharge and recharge of groundwater, detention and removal of sediments, and the detention, removal, and transformation of nutrients and contaminants. Wetlands also may provide habitat for wildlife and sites for human recreation, education, and aesthetic enjoyment.

A desktop analysis of aerial photography, topographical maps, National Wetlands Inventory, and National Hydrography Dataset identified no potential jurisdictional wetlands and five intermittent streams crossings within the Project Corridor.

Oliver Wind III will conduct wetland delineations of potential U.S. Army Corps of Engineers (USACE) jurisdiction for the proposed Project in spring 2016. The delineations will be conducted using the methodologies cited in the USACE Jurisdictional Determination Form Instruction Guidebook (USACE and EPA 2007), including the revised Rapanos guidance dated December 2, 2008 (EPA and USACE 2008). Delineated features will be avoided where feasible. A wetland delineation report of findings will be provided upon completion.

## **6.3 Whooping Crane Likelihood of Occurrence**

A desktop whooping crane likelihood of occurrence analysis is in process for the Oliver III Wind Energy Center, including the proposed Project. Although the Oliver III Wind Energy Center and proposed Project is in the central portion of the migration corridor, the analysis results indicate the proportion of suitable habitat was greater outside the proposed Project, making the proposed Project less attractive than the surrounding landscape. In addition, the majority of the wetlands within the proposed Project appear to be cattle pond impoundments or intermittent creeks or occur along wooded windbreaks. Most of these wetlands are also near to residential housing, roadways, and existing utility lines that whooping cranes may perceive as unsuitable due to human activities (TWI 2013).

Overall, based on the location of the proposed Project within the migration corridor, whooping cranes may still migrate through the proposed Project and may be at risk of colliding with wind turbines and any utility lines associated with the proposed Project. To reduce risk of collision for whooping cranes and other birds, sections of the transmission line that are within 1 mile of any potentially suitable wetland habitat for whooping cranes will be outfitted with bird flight diverters per recommendations outlined in the *Upper Great Plains Wind Energy Programmatic Environmental Impact Statement* (WAPA and USFWS 2015) and the Avian Power Line Interaction Committee (APLIC) (2012). The marking of overhead utility and power lines has been shown to reduce the risk of collisions as the marked utility lines are more visible to birds. Studies have documented sandhill cranes, a bird similar to whooping cranes, gradually climbing in flight as they approach marked power lines to avoid them (Morkill and Anderson 1991, Murphy et al. 2009).

The avoidance behavior observed and lack of documented turbine-related fatalities of whooping and sandhill cranes suggests a low risk of related fatalities for the proposed Project. Furthermore, no whooping crane fatalities have been recorded at wind facilities to date, suggesting that likelihood of collision may be low.

## 7.0 PUBLIC AGENCY COORDINATION AND IDENTIFICATION OF PERMITS AND APPROVALS

### 7.1 Agency Consultation

NDAC § 69-06-01-05 lists 27 state agencies or officers that are entitled to notice of the Applicant's proposed action. Letters describing the proposed Project were sent to the applicable agencies in January 2016. Copies of these letters and all responses received are included in **Appendix B**; a summary of the responses received as of February 29, 2016 are presented below in **Table 11**.

Oliver Wind III will continue to meet with county officials as the proposed Project moves forward and Oliver Wind III seeks any necessary local permits. A landowner dinner was held in January 2016 for the Oliver III Wind Energy Center, which included discussion of the possibility of developing the proposed Project. Oliver Wind III invited all landowners within the proposed Oliver III Wind Energy Center Project Area, as well as adjacent to the proposed Project to the open house.

**Table 11. Summary of Agency Correspondence**

Agency	Date of Correspondence	Information Provided	Response Date	Response Summary	Section(s) Where Response is Addressed
U.S. Fish and Wildlife Service	01/11/2016	Shapefiles of proposed Project Area	01/20/2016	There are no U.S. Fish and Wildlife Service easements or fee-title lands within or near the proposed Project area.	5.1, 5.2
North Dakota Game and Fish Department	01/14/2016	Agency consultation letter; T,R,S of proposed Project Area; map of Project Location	2/10/2016	The agency originally provided comments regarding this Project on 24 December 2015. The agency reviewed the Project as updated and has nothing additional to offer. The original comments are still applicable.	5.1, 5.2, 8.2

**Table 11. Summary of Agency Correspondence**

Agency	Date of Correspondence	Information Provided	Response Date	Response Summary	Section(s) Where Response is Addressed
North Dakota Game and Fish Department	11/24/2015	Agency consultation letter; T,R,S of proposed Project Area; map of Project Location	12/24/15	Asks that native prairie be avoided to the extent possible and suggests use of U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines. Recommends avoidance of wetland impacts and maintaining existing drainage patterns, and replacing wetlands that are affected. Requests burying of collection lines, marking overhead lines near streams or wetlands to minimize avian impacts; recommends conducting aerial surveys for raptor nests prior to construction and implementing a ½ mile buffer around active eagle nest sites; recommends monitoring for avian and bat mortality, and requests global positioning system (GPS) coordinates of turbines once proposed Project is constructed.	5.1, 5.2, 8.2
North Dakota Game and Fish Department	01/11/2016	Shapefiles of proposed Project Area and 10-mile buffer	01/13/2016	There are no known prairie dog or burrowing owl locations within the proposed Project Area.	5.1, 5.2
North Dakota Game and Fish Department	01/11/2016	Shapefiles of proposed Project Area and 10-mile buffer	02/03/2016	North Dakota Game and Fish recommends that the agency help design a survey protocol for grouse habitat.	5.1, 5.2
U.S. Army Corps of Engineers	01/14/2016	Agency consultation letter; T,R,S of proposed Project Area; map of Project Location	01/20/2016	If a Section 10 and/or Section 404 permit is required, a permit application must be submitted to USACE. A web link to Section 10/404 permit applications and instructions for completion was provided.	5.1, 5.2, 6.2
State Historical Society of North Dakota	02/02/2016	Email correspondence	02/02/2016	Confirmed that the Area of Potential Effects (APE) for historic architecture for the proposed Project is set at 2 miles.	5.1, 5.2, 6.1, 7.2, 8.9

**Table 11. Summary of Agency Correspondence**

Agency	Date of Correspondence	Information Provided	Response Date	Response Summary	Section(s) Where Response is Addressed
State Historical Society of North Dakota	01/14/2016	Agency consultation letter; T,R,S of proposed Project Area; map of Project Location	01/20/2016	Recommends Class I file search and Class III Intensive Cultural Resources Inventories for historic structures over 50 years within the visual APE. The visual APE for historic structures should be within a 2 mile radius of individual turbine locations but may be modified depending on specific turbine locations. The agency requests a map of the turbine locations to see if there needs to be any modifications to the APE. Class III archaeological (pedestrian) surveys will be warranted for archaeological sites for all areas directly impacted by the proposed Project.	5.1, 5.2, 6.1, 7.2, 8.9
State Historical Society of North Dakota	01/15/2016	Shapefiles of proposed Project Area	01/15/2016	A survey area for architectural resources consisting of a 2-mile buffer around planned turbines is acceptable for the proposed Project.  A Class I file search and Class III Intensive Cultural Resources Inventories for archaeological sites and historic structures should be completed for the proposed Project.	5.1, 5.2, 6.1, 7.2, 8.9
ND Parks and Recreation Department	01/14/2016	Agency consultation letter; T,R,S of proposed Project Area; map of Project Location	02/12/16	The proposed Project does not affect state park lands or state Land and Water Conservation Fund lands managed by the agency. Upon review of North Dakota Natural Heritage biological conservation database, there are no documented significant ecological community, plant or animal species of concern occurrences in the database within or adjacent to the proposed Project Area. The agency suggests that all efforts be made to avoid impacts to wildlife species and their habitats. To identify and assess adverse impacts to wildlife the agency suggests pre and post construction avian and bat monitoring studies be conducted.	5.1, 5.2

**Table 11. Summary of Agency Correspondence**

Agency	Date of Correspondence	Information Provided	Response Date	Response Summary	Section(s) Where Response is Addressed
ND Department of Health	01/14/2016	Agency consultation letter; T,R,S of proposed Project Area; map of Project Location	02/02/16	The agency believes the environmental impacts of the proposed Project will be minor and can be controlled by proper construction methods. Fugitive dust emissions should be minimized during construction. Impacts to streams should be avoided and disturbed areas should be revegetated. The agency attached guidelines for minimizing degradation to waterways during construction. Projects disturbing one or more acres must have a permit to discharge storm water runoff. The agency directs to check with local officials to be sure any local storm water management considerations are addressed. Noise from construction activities can be minimized by ensuring that construction equipment is equipped with a working muffler. The agency believes the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.	5.1, 5.2, 7.2
North Dakota State Water Commission	01/14/2016	Agency consultation letter; T,R,S of proposed Project Area; map of Project Location	02/05/16	There are no floodplains identified and/or mapped in the proposed Project Area, and no floodplain permits from Morton or Oliver County would be necessary relative to the National Flood Insurance Program. Directs to contact the Southwest Water Authority regarding Southwest Pipeline Project infrastructure that may be located in the Project area. States that it is the project sponsor's responsibility to ensure that the appropriate agencies are contacted for any required approvals, permits, or easements. States all waste material must be disposed of properly and not placed in identified floodway areas.	5.1, 5.2

**Table 11. Summary of Agency Correspondence**

Agency	Date of Correspondence	Information Provided	Response Date	Response Summary	Section(s) Where Response is Addressed
Morton County Soil Conservation District	01/14/2016	Agency consultation letter; T,R,S of proposed Project Area; map of Project Location			5.1, 5.2

## 7.2 Potential Permits/Approvals

The federal and state permits or approvals that have been identified as potentially required for the construction and operation of the proposed Project are shown in **Table 12**. Permits dependent on the final route and structure location will be applied for in spring 2016 prior to construction.

**Table 12. Potential Permits and Approvals Required for Construction and Operation of the Project**

Agency	Type of Approval	Status*	Need
<b>Federal Approvals</b>			
USACE	Nationwide Permit 12 and 14	3	Wetland surveys are currently underway to ensure that the proposed Project minimizes impacts to waters of the United States and stays below the pre-construction notification threshold.
EPA	Spill Prevention, Control, and Countermeasure Plan	2	Required if more than 1,320 gallons of oil are stored on site.
<b>State of North Dakota</b>			
North Dakota Public Service Commission (the Commission)	Certificate of Corridor Compatibility and Route Permit	1	Required for transmission lines over 115kV.
SHSND	Concurrence with effect determinations	1	Class I File Search is complete and a Class III Intensive Cultural Resources Inventory for archaeology is underway. The reports will be submitted to SHSND for review when complete.
North Dakota Department of Health	National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction Activity	2	Required for disturbance of over 1 acre of land. Must prepare a Stormwater Pollution Prevention Plan (SWPPP) to accompany permit application.
<b>Local Permits</b>			
Oliver County	Conditional Use Permit	1	Oliver Wind III submitted the application in February 2016.
	Building Permit	2	Permit to build aboveground facilities associated with the proposed Project.
Morton County	n/a	n/a	n/a

**Table 12. Potential Permits and Approvals Required for  
Construction and Operation of the Project**

Agency	Type of Approval	Status*	Need
Southwestern Water Authority	Pipeline Crossing Permit	2	Required for crossing the Southwest Pipeline Project.

Note: Per discussion with the Morton County Planning Department, Morton County does not require county approval for the Oliver III transmission line as the proposed Project is permitted by the Commission.

- \* Status Explanation:  
1 = Applied and/or Decision Pending  
2 = Will Apply Prior to Construction  
3 = Final Layout will Determine Whether Permit/Approval is Needed

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## **8.0 FACTORS CONSIDERED**

The Siting Act lists 11 factors to guide the Commission in the evaluation and designation of the corridor and route.

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

**Section 6.0** summarizes the research and investigations relating to the potential effects of the proposed facility on public health and welfare, natural resources, and the environment. **Section 6.0** also identifies proposed mitigation to minimize these effects.

### **8.2 Technologies to Minimize Adverse Environmental Effects**

The Applicant will utilize the most current technologies and industry-standard approaches to minimize environmental impacts, including designing and constructing the proposed Project according to APLIC (2012) recommendations, avoiding of cultural resources, and minimizing impacts to wetlands and streams. In addition, bird diverters will be installed along portions of the proposed Project that are located within 1 mile of wetland to minimize the likelihood of large birds such as cranes colliding with the transmission line. A Bird and Bat Conservation Strategy (BBCS) is being prepared for the proposed Oliver III Wind Energy Center and this proposed transmission line.

### **8.3 Beneficial Uses of Waste Energy**

This factor is not applicable to the proposed Project.

### **8.4 Unavoidable Adverse Environmental Effects**

The proposed Project will introduce a new visual component into the landscape; however, the existing landscape in the vicinity of the Project Corridor already includes existing high-voltage transmission lines, electrical distribution lines, and radio towers. The Project Route is expected to permanently impact approximately 5 acres of land during operation, assuming a 5-acre Minnkota switchyard and 7 feet in diameter poles (38.5 square feet per structure).<sup>1</sup>

### **8.5 Alternatives to the Proposed Route**

Other alternatives were considered for the Project Route within the area between the northern terminus (the point of interconnection) and the southern terminus (the location of the collection substation for the proposed Oliver III Wind Energy Center). The Applicant believes that the proposed location is the most viable route alternative based on landowner preferences; the fact that the Project Route follows existing road ROWs and field lines where practicable; and is the most direct route that also minimizes impacts on the exclusion, avoidance, selection, and policy criteria identified in NDAC § 69-06-08-02.

### **8.6 Irreversible and Irretrievable Commitment of Natural Resources**

Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the use of these resources have on future generations. Irreversible

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<sup>1</sup> Twenty-six structures, each consisting of a 38.5-square-foot pole is approximately 1000 square feet, or 0.02 acre.

effects primarily result from use or destruction of a specific resource that cannot be replaced within a reasonable timeframe. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action. There are few commitments of resources associated with this proposed Project that are irreversible and irretrievable, but these include those resources primarily related to construction.

Natural resources will be used in the fabrication and preparation of construction materials. These materials are usually not retrievable. Construction resources that will be used include steel, aggregate resources, concrete, and hydrocarbon fuel. Each steel monopole structure requires the construction of a foundation approximately 7 feet in diameter and approximately 20 feet deep. During construction, vehicles will be traveling to and from the site, utilizing hydrocarbon fuels. These resources are not in short supply, and their use will not have an adverse effect on the availability of these resources. In addition, the anticipated economic benefits of the proposed Project will balance the irretrievable commitment of resources resulting from the construction of the proposed Project (see **Section 8.6**).

### **8.7 Direct and Indirect Economic Impact of the Proposed Transmission Facility**

The proposed Project will enable power to be delivered from the proposed Oliver III Wind Energy Center, a proposed 100 MW wind farm, to the electrical grid. Direct and indirect economic benefits of the wind farm and transmission line are primarily positive. Wind energy development removes less total land from agricultural use than other forms of development. The rural economy and energy production in the county and state is diversified. To the extent that local contractors are used for portions of the construction, total wages and salaries paid to contractors and workers in Oliver and Morton counties will contribute to the total personal income of the region. Additional personal income will be generated for residents in the county and the state by circulation and recirculation of dollars paid out by the Applicant as business expenditures and state and local taxes. Expenditures made for equipment, energy, fuel, operating supplies, and other products and services benefit businesses in the county and the state.

Long-term beneficial impacts to the county's tax base as a result of the construction and operation of the wind farm and transmission line will contribute to improving the local economy in this area of North Dakota. The development of wind energy in this region will be important in diversifying and strengthening the economic base of western North Dakota. Additional revenues are expected from property and income taxes.

Direct economic impacts associated with the proposed Project include payments made to landowners for the transmission line easement, and the temporary disturbance of up to approximately 82 acres of land due to transmission structure installation, assuming the entire 150-foot-wide construction easement will be disturbed. Permanent impacts will be lower, at slightly more than 5 acres, primarily the Minnkota switchyard and approximately 26 pole structures (0.02 acres). In general, direct economic impacts are minimal because agricultural areas surrounding each transmission line structure can still be farmed, and landowner compensation will be established by individual easement agreements.

## **8.8 Existing Development Plans in the Vicinity of the Route**

No conflicts are anticipated with existing state and local government and private entities' development plans. The Project Route was developed based on voluntary easement agreements with landowners.

## **8.9 Effects on Scenic and Cultural Resources**

There are no designated recreational or scenic resources that will be affected by the proposed Project. **Section 6.1** describes the cultural resources inventory underway for the proposed Project. No impacts to potentially significant sites are anticipated.

## **8.10 Effects on Biological Resources**

Biological resources within the Project Corridor and potential effects as a result of the proposed Project are discussed in **Section 6.3**. Effects will be avoided and minimized to the extent practicable. The transmission line will be designed and constructed following APLIC (2006) recommendations to minimize the risk of electrocution for birds, and portions of the proposed Project that are within 1 mile of suitable wetland habitat for whooping cranes will be marked per APLIC recommendations (APLIC 2012) to minimize impacts to whooping cranes and other large birds. As stated in **Section 8.2**, a BBCS is being prepared for the proposed Project.

## **8.11 Problems Identified by Agencies**

Agency coordination and potential permits/approvals are discussed in **Section 7.1** and **Section 7.2**, respectively. In general, the agencies that responded concluded that the proposed Project will have minimal adverse effects. A copy of agency correspondence is included in **Appendix B**.

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## 9.0 QUALIFICATIONS OF CONTRIBUTORS

Name Project Role	Education and Professional Experience
MARK TRUMBAUER Project Manager, Development NEER	Mark Trumbauer currently manages the development of wind projects in the Upper Midwest. Mark joined NEER in 2008 and has been involved in wind projects in Illinois, Michigan, Kansas, Iowa, and North Dakota. Mark holds a Bachelor of Landscape Architecture from Iowa State University.
KIMBERLY WELLS, PH.D. Environmental Services Project Manager NEER	Dr. Wells has 15 years of environmental permitting experience including experience as both a consultant and environmental manager in the renewable industry. Her primary expertise is technically challenging and interdisciplinary projects on private and public land, with a focus on large environmental impact assessment and permitting projects with the National Environmental Policy Act (NEPA) and state equivalents; the Endangered Species Act, the Clean Water Act, and associated natural resource laws. She is a certified wildlife biologist and wetland delineator, and obtained her BS in Natural Resource Management from the University of Arizona, her MS in Fisheries and Wildlife Ecology from Oklahoma State, and her PhD in Fisheries and Wildlife Sciences from the University of Missouri–Columbia. Dr. Wells is the environmental permitting manager for the Mid-Continent Region that includes North Dakota.
JASON UTTON Director Development NEER	Mr. Utton currently directs all wind energy development efforts in the Midwest ISO and PJM markets. Jason joined NEER in 2007. While with NEER, he has successfully developed over 500 MW of clean, renewable energy, which reflects a total company investment of over \$2.0B. Jason is the lead negotiator for all commercial contracts in North Dakota.
JOHN SCHAJATOVIC Sr. Project Manager Construction NEER	John Schajatovic is a Senior Project Manager for NEER responsible for the early stage management within the Engineering & Construction Department. Since joining NEER in September of 2010, John has been responsible for supporting the engineering, design, permitting and successful turnover to execution teams for multiple wind development projects and their associated transmission lines throughout the United States and Ontario. Prior to joining NEER, John served in various project management roles responsible for all phases of infrastructure projects from inception to completion in both the private construction sector as well as with public development companies. John has a BS degree in Business Administration from Youngstown State University in Ohio.
BRIAN BJELLA Attorney for Applicants Crowley Fleck PLLP	Applicant's counsel. J.D. and Bachelor's degree, both from University of North Dakota.
SARAH McCALL Project Manager Tetra Tech, Inc.	Ms. McCall has more than 12 years of experience as an environmental planner and natural resources specialist/policy analyst. Responsibilities have included project management and technical support of NEPA documents and other land use permits, focusing largely on renewable energy projects. Ms. McCall received her MPA in Environmental Management at Indiana University, her MS in Environmental Science at Indiana University, and her BS in Zoology at the University of Wisconsin.
TARA LOW Environmental Planner Tetra Tech, Inc.	Ms. Low has more than 12 years of experience in environmental planning, policy, and regulation with an emphasis in transmission line, power generation, and pipeline siting and permitting. Ms. Low received her MS in Environmental Sciences from the University of Colorado and her BS in Zoology and Environmental Biology from Michigan State University.

Name Project Role	Education and Professional Experience
JAKE ENGELMAN GIS Analyst Tetra Tech	Mr. Engelman prepared the application figures, impact calculations, and other GIS tasks in support of this permit application. He is a GIS specialist with four years of experience in environmental resource and utility planning projects. His skills include GIS, cartographic and graphic design, remote sensing, natural and cultural environmental resource mapping, and GPS data collection. He uses these skills to produce high-quality graphic products of proposed projects, ranging from generation scale utility projects to single parcel substations. Mr. Engelman received his BS in Geography at Minnesota State University-Mankato.
ADAM HOLVEN Archaeologist Tetra Tech	Mr. Holven led the Class I and Class III Cultural Resources Inventory for archaeology for the proposed Project. He has extensive archaeological field experience, including large-scale multi-square mile cultural resource surveys for wind farms in North Dakota, South Dakota, and Minnesota. Mr. Holven obtained his MA in Anthropology at Iowa State University, his BA in Anthropology at University of Northern Iowa, and his BS in Geology at University of Northern Iowa.
APRYL JENNRICH Geologist/Wetlands Specialist Tetra Tech	Ms. Jennrich led the wetlands survey for the proposed Project. She has 8 years of experience as a geologist and environmental scientist in the environmental consulting field and approximately 6 years of wetland-specific experience. Ms. Jennrich obtained her MS in Geology (emphasis on hydrogeology) at the University of Minnesota–Twin Cities and her BS in Geology at the University of Wisconsin–River Falls.
RICH YOUNG Wildlife Biologist Tetra Tech	Mr. Young is a wildlife biologist with over 20 years of experience. He has overseen the avian and eagle surveys for the proposed Project. Mr. Young specializes in biological assessments of sensitive and rare wildlife, inventories and censuses of wildlife populations, habitat restoration and management, and impacts of anthropogenic disturbance. He has managed and supervised a variety of field-intensive projects involving the inventory and assessment of sensitive species and habitats. Mr. Young received his BS in Fisheries and Wildlife Biology at Iowa State University.

## 10.0 REFERENCES

- APLIC (Avian Power Line Interaction Committee). 2006. Suggested practices for raptor protection on Power Lines; the State of the Art in 2006. Edison Electric Institute, APLIC and the California Energy Commission Washington, D.C and Sacramento, CA.
- \_\_\_\_\_. 2012. Reducing Avian Collisions with Power Lines: The State of the Art in 2012. Edison Electric Institute and APLIC. Washington, D.C.
- EPA and USACE (U.S. Environmental Protection Agency and U.S. Army Corps of Engineers). 2008. Response to Comments “Clean Water Act Jurisdiction Following the Supreme Court’s Decision in Rapanos v. United States & Carabell v. United States Guidance” issued June 5, 2007.  
<http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/RelatedResources/CWAGuidance.aspx>
- Morkill, A.E. and S.H. Anderson. 1991. Effectiveness of marking powerlines to reduce sandhill crane collisions. *Wildlife Society Bulletin* 19: 442-449.
- Murphy, R.K, S.M. McPherron, G.D. Wright, and K.L. Serbousek. 2009. Effectiveness of avian collision averters in preventing migratory bird fatality from powerline strikes in the central Platte River, Nebraska. 2008-2009 Final Report.
- RUS (U.S. Department of Agriculture Rural Utilities Service). 2013. Burlington-Wray 230-Kilovolt Transmission Project. Environmental Assessment. October 2013. Available online at: [http://www.rd.usda.gov/files/UWP\\_CO47-Tri-State\\_Burlington-Wray\\_EA.pdf](http://www.rd.usda.gov/files/UWP_CO47-Tri-State_Burlington-Wray_EA.pdf), accessed December 2015.
- TWI (The Watershed Institute). 2013. Potentially Suitable Habitat Assessment for the Whopping Crane (*Grus americana*). Prepared by Watershed Institute Inc. Topeka, KS. June 2013.
- USACE and EPA (U.S. Army Corps of Engineers and U.S. Environmental Protection Agency). 2007. Jurisdictional Determination Form Instructional Guidebook.  
<http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/RelatedResources/CWAGuidance.aspx>.

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## 11.0 DEFINITIONS

APLIC	Avian Power Line Interaction Committee
Applicant	Oliver Wind III, LLC
Oliver Wind III	Oliver Wind III, LLC
BBCS	Bird and Bat Conservation Strategy
Class I Cultural Resources Inventory	Existing data inventory—a large-scale review and compilation of known cultural resource data
Class III Cultural Resources Inventory	Field inventory to identify cultural resources that could be affected by project facilities within the proposed Project Area
Commission	North Dakota Public Service Commission
Corridor Certificate and Route Permit	Certificate of Corridor Compatibility and Route Permit
dba	decibels on the A-weighted scale
GIS	geographic information system
GPS	global positioning system
Guidelines	Commission Application Guidelines for a Certificate of Corridor Compatibility
ICBM	intercontinental ballistic missile
kV	kilovolt
Minnkota	Minnkota Power Cooperative, Inc.
MW	megawatt
NEER	NextEra Energy Resources, LLC
NEPA	National Environmental Policy Act
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
proposed Project, the	Oliver III Transmission Line
ROW	right-of-way
SHSND	State Historical Society of North Dakota
Siting Act	North Dakota Energy Conversion and Transmission Facility Siting Act
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers

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## Figures

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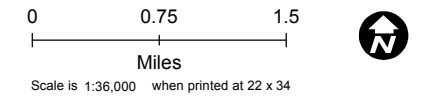
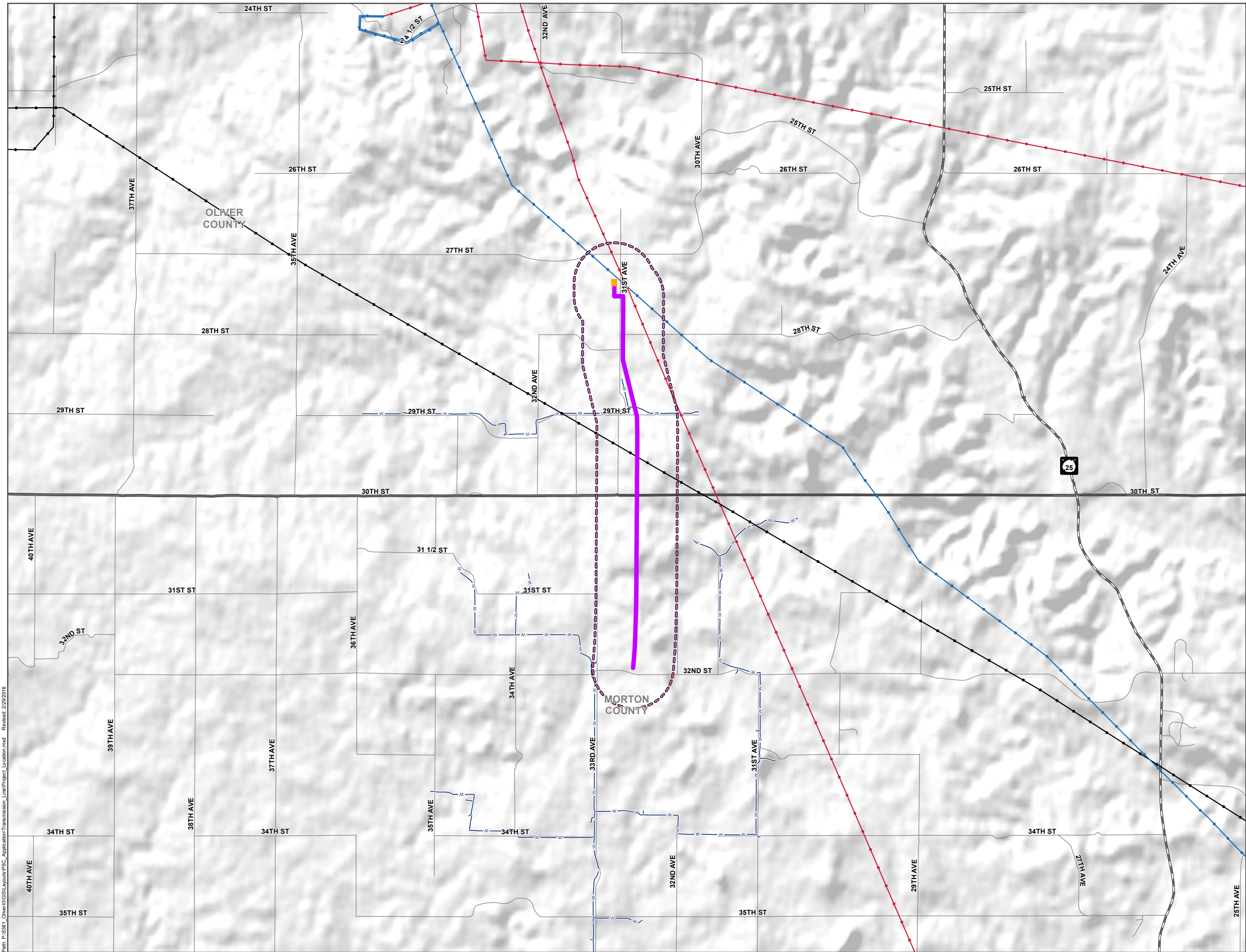
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# Oliver III Transmission Line

Oliver and Morton Counties, ND

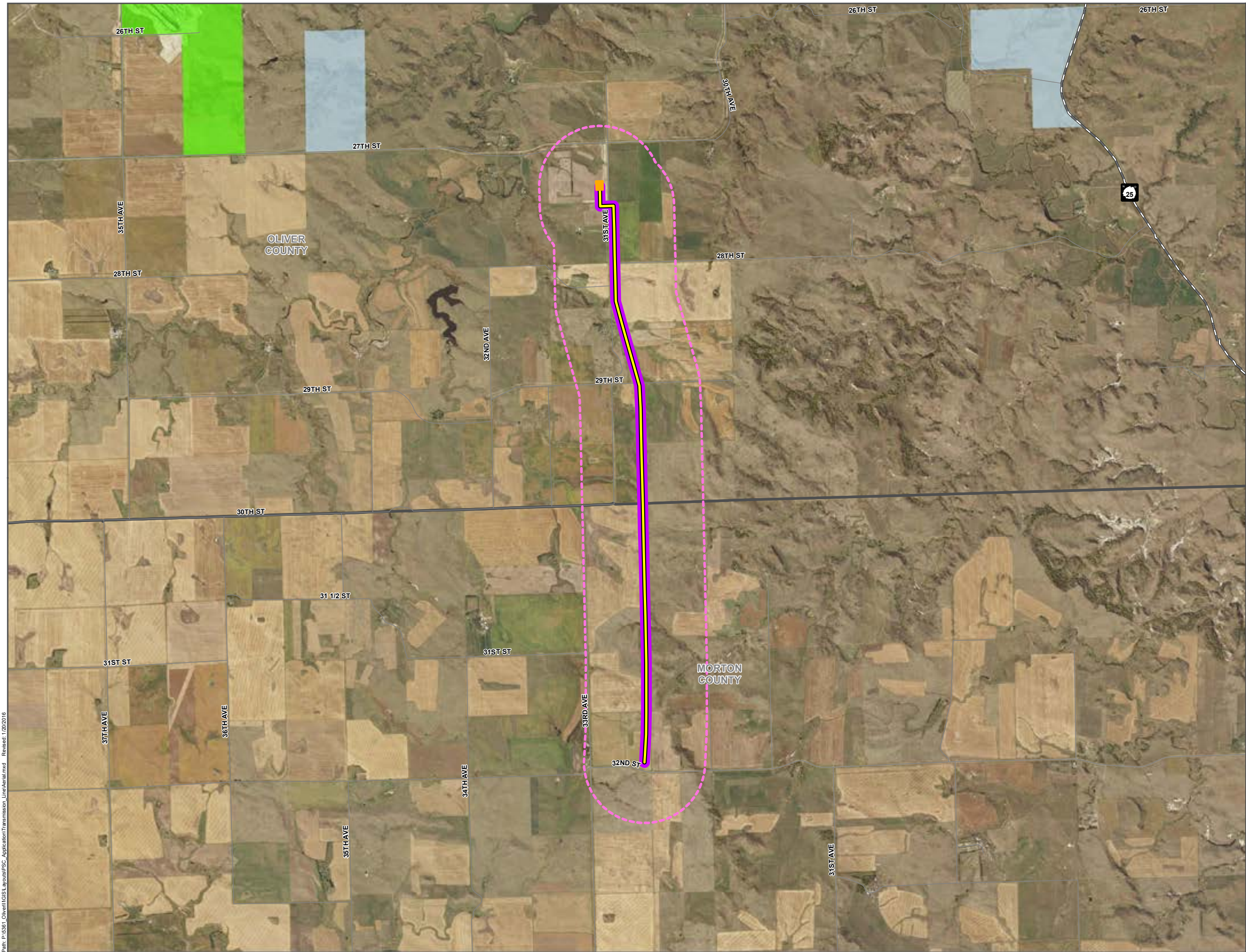
### Legend

- Proposed Project Corridor (250 feet wide)
  - Proposed Switchyard (08/13/15)
  - Study Area (0.5 mile on either side of the centerline)
  - County Boundary
  - Southwest Water Authority Pipeline
- Existing Electrical Transmission (Ventyx 2015)**
- 115kV Transmission Line
  - 230kV Transmission Line
  - 345kV Transmission Line
- Transportation (BTS 2013)**
- State Highway
  - County Road



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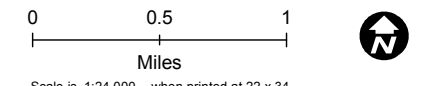
Figure 1: Project Location



# Oliver III Transmission Line

Oliver and Morton Counties, ND

- Legend**
- Proposed Route (12/09/15)
  - Proposed Project Corridor (250 feet wide)
  - Proposed Switchyard (08/13/15)
  - Study Area (0.5 mile on either side of the centerline)
  - County Boundary
- Transportation**
- State Highway
  - County Road
- Jurisdiction  
(ND GIS Hub 2014)**
- State**
- State Trust Land
- Other**
- North Dakota Game & Fish Conservation PLOTS Recreational Easement (Private Land Open to Sportsmen)



Scale is 1:24,000 when printed at 22 x 34



Path: P:\0381\_Oliver\GIS\Layouts\FSC\_Application\Transmission\_Line\Aerial.mxd Revised: 1/20/2016

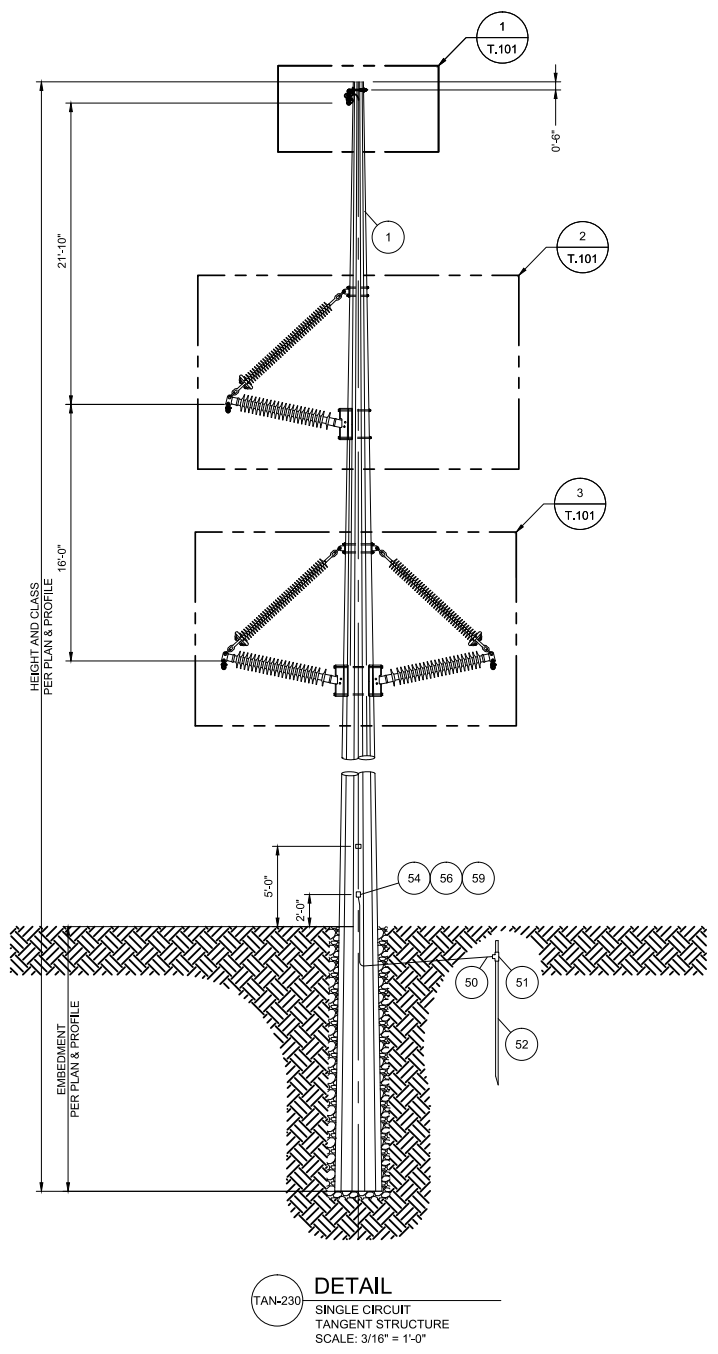
Figure 2: Project Corridor (Aerial)



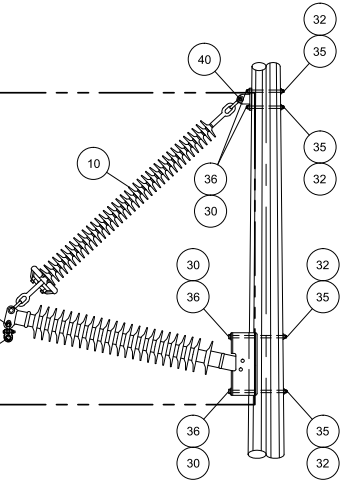
REVISIONS

REV	DESCRIPTION	DSN	CHK	DATE
		BJA	SMA	
A	ISSUED FOR REVIEW	BJA	SMA	02/03/15

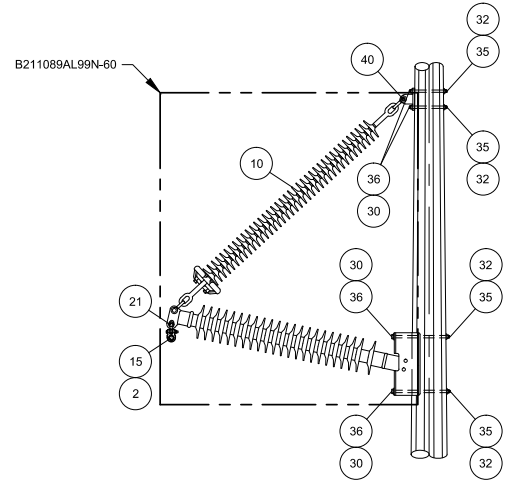
TANGENT BILL OF MATERIAL					MATERIAL REQUIRED THIS SHEET	
Item	QTY	Units	Manufacturer	Part No.	Description	Provided by
1	1	EA	TRINITY MEYER		POLE: STEEL, WOOD EQUIVALENT, HEIGHT AND CLASS AS SHOWN ON PLAN AND PROFILE DRAWING	OWNER
2	AS REQ'D	FT			CONDUCTOR: 1272 kcmil "BITTERN", 1.345" DIAMETER, 34,100 LB ULTIMATE STRENGTH, 1.434 LB/FT	OWNER
3	AS REQ'D	FT	SFPOC	SFSJ-J-4388	OPGW: 48 FIBER, 0.530" DIAMETER, 18,800 LB ULTIMATE STRENGTH, 0.365 LB/FT	OWNER
5	1	EA	ELECTROTEK	S-STRAP	S-STRAP: SEE DRAWING XXX FOR DIMENSIONS, WITH REQUIRED TERMINALS	OWNER
10	3	EA	MACLEAN	B211089AL99N-60	INSULATOR: BRACED POST, 230 kV	OWNER
14	1	EA	PREFORMED	4300109YC	SUSPENSION CLAMP: FOR 0.512" TO 0.536" DIAMETER OPGW, SINGLE, FIBERLIGN, INCLUDES Y-CLEVIS	OWNER
15	3	EA	ANDERSON	CFS-213-N	SUSPENSION CLAMP: FOR "BITTERN", ALUMINUM,	OWNER
19	1	EA	HUGHES BROS	2855.5-10-BCL	BRACKET: SHIELD WIRE SUPPORT, 5/8" DIAMETER, 10" LENGTH, 5/8" LINK CHAIN, MAX VERTICAL LOAD 5 KIP	OWNER
20	1	EA	ANDERSON	YCS-05	Y CLEVIS EYE: 20 KIP ULTIMATE LOAD, 3/4" PIN DIAMETER, 11/16" DIAMETER AND 5/8" WIDTH EYE	OWNER
21	3	EA	ANDERSON	YCS-22-90	Y CLEVIS EYE: 30 KIP ULTIMATE LOAD, 3/4" PIN DIAMETER, 11/16" DIAMETER AND 2 1/4" WIDTH EYE	OWNER
25	3	EA	PREFORMED	AR-0146	ARMOR RODS: FOR 1272 kcmil, 45/7 Strand, "BITTERN"	OWNER
30	12	EA			BOLT: 7/8" DIAMETER, LENGTH NOT SPECIFIED	CONTRACTOR
32	12	EA	LOK-MOR	ANCO	LOCKNUT: FOR 7/8" BOLT	CONTRACTOR
35	4	EA	HUGHES BROS	SW3-80-3/8	WASHER: SQUARE, FLAT, 3" X 3" FOR 7/8" BOLT	CONTRACTOR
36	8	EA	HUGHES BROS	RW2-80	WASHER: ROUND FOR 7/8" BOLT, 2" OUTSIDE DIAMETER	CONTRACTOR
40	3	EA	HUGHES BROS	2817-S-15	DEADEND TEE: 60,000 LB ULTIMATE STRENGTH, 6" HOLE SPACING, 15/16" MOUNTING HOLE, 15/16" CHAMFERED STEM HOLE	CONTRACTOR
50	AS REQ'D	FT			CONDUCTOR: COPPER, #2 AWG, 0.292" DIAMETER, 7-STRAND	CONTRACTOR
51	AS REQ'D	EA			CLAMP: COMPRESSION, FOR #2 AWG TO 1/2" DIAMETER GROUND ROD	CONTRACTOR
52	AS REQ'D	EA	HUBBELL	C611300	GROUND ROD: 1/2" DIAMETER X 10' LENGTH, COPPER	CONTRACTOR
54	2	EA			TERMINAL: FOR #2 AWG TO 2 HOLE NEMA PAD	CONTRACTOR
56	4	EA			BOLT: 1/2" DIAMETER, 2" LONG	CONTRACTOR
59	4	EA			WASHER: LOCKWASHER FOR 1/2" BOLT	CONTRACTOR



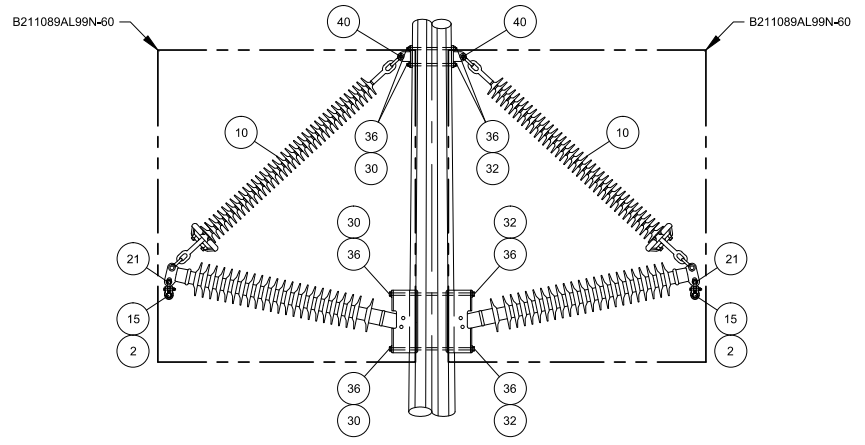
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2 DETAIL  
 T.101 BRACED POST ATTACHMENT  
 SCALE: 3/8" = 1'-0"



3 DETAIL  
 T.101 BRACED POST ATTACHMENT  
 SCALE: 3/8" = 1'-0"



NOTES

1. USE GROUNDING PROCEDURE FOR INSTALLATION OF GROUNDING RODS. SEE DRAWING T.XXX
2. REFERENCE PLAN AND PROFILE DRAWINGS FOR REQUIRED STRUCTURE EMBEDMENTS.

SCALE VERIFICATION

THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING

IF IT'S NOT 1 INCH ON THIS SHEET ADJUST YOUR SCALES ACCORDINGLY

ORIGINAL DRAWING SIZE IS 24 x 36

TANGENT STRUCTURE ASSEMBLY DRAWING

DICKINSON TRANSMISSION LINE



ISSUED FOR REVIEW

PROJECT NO.	20153924	T.101
ISSUE DATE	02/03/15	
CURRENT REVISION	A	
DESIGNED BY	B. AVERILL	
DRAWN BY	B. AVERILL	
CHECKED BY	S. ARNDT	
APPROVED BY	S. ARNDT	SHEET --- of ---

CAD FILE: W:\20153924\_nexera\_dickinson\_line\5101 Drawings\1 Draw\T.101 TANGENT STRUCTURE ASSEMBLY DRAWING.dwg PLOTTED: 2/2/2015 5:08 PM BY: ban\_aveill






Figure 4: Transmission Line Typical Structure





# Oliver III Transmission Line

Oliver and Morton Counties, ND

## Legend

-  Proposed Route (12/09/15)
-  Proposed Project Corridor (250 feet wide)
-  Proposed Switchyard (08/13/15)
-  Study Area (0.5 mile on either side of the centerline)
-  County Boundary

## Transportation

-  State Highway
-  County Road


## Avoidance Areas\*

-  Occupied Residence - 500ft buffer

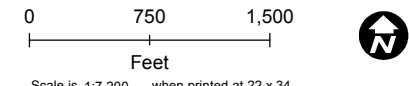
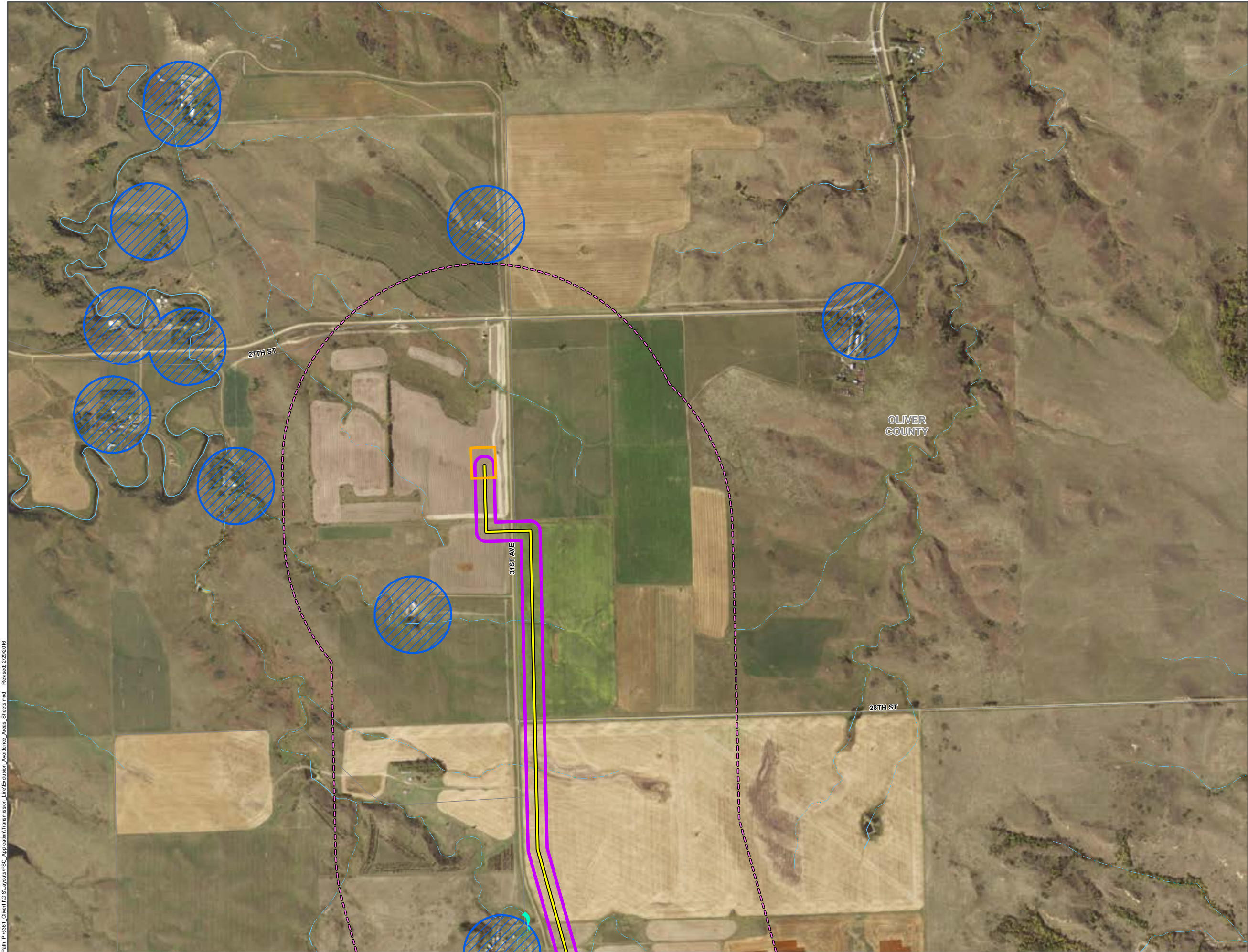
## Exclusion Areas\*

### Selection Criteria

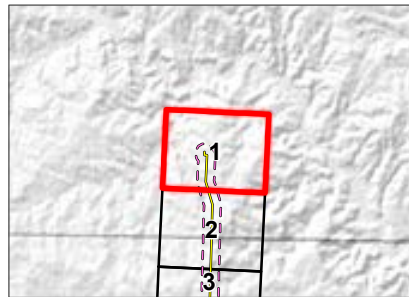
NWI 2014, NLCD 2011

-  Field-verified Wetlands and Streams
-  NWI Wetland
-  NLCD Wooded Areas\*  
\*Categories: 41, 42, 43, 90

\*Archeological Sites Not Shown Due to Confidentiality



Scale is 1:7,200 when printed at 22 x 34








Path: P:\0381\_OliverIII\GIS\Layouts\FSC\_Application\Transmission\_Line\Exclusion\_Avoidance\_Areas\_Sheets.mxd. Revised: 2/20/2016

Figure 6: Exclusion and Avoidance Areas - Sheet 1



# Oliver III Transmission Line

Oliver and Morton Counties, ND

## Legend

-  Proposed Route (12/09/15)
-  Proposed Project Corridor (250 feet wide)
-  Proposed Switchyard (08/13/15)
-  Study Area (0.5 mile on either side of the centerline)
-  County Boundary

## Transportation

-  State Highway
-  County Road




## Avoidance Areas\*

-  Occupied Residence - 500ft buffer

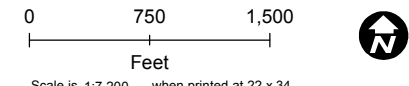
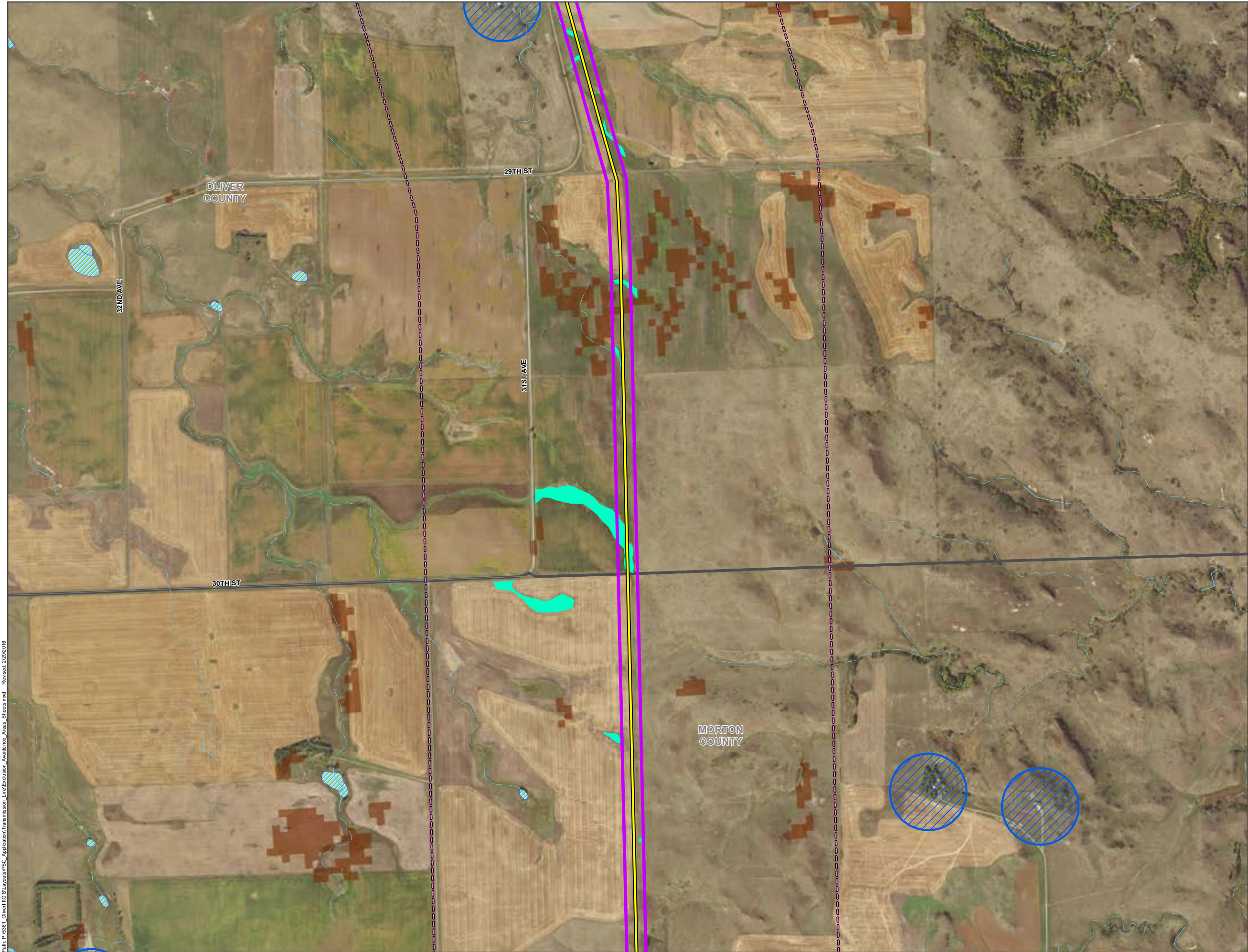
## Exclusion Areas\*

### Selection Criteria

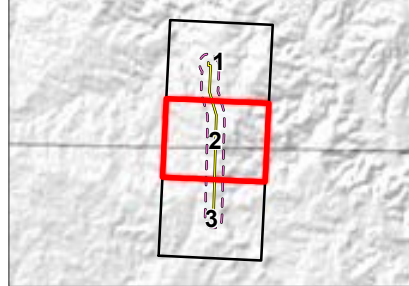
NWI 2014, NLCD 2011

-  Field-verified Wetlands and Streams
-  NWI Wetland
-  NLCD Wooded Areas\*  
\*Categories: 41, 42, 43, 90

\*Archeological Sites Not Shown Due to Confidentiality



Scale is 1:7,200 when printed at 22 x 34



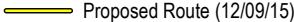

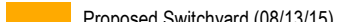







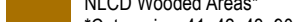
Path: P:\0381\_OliverIII\GIS\Layouts\FSC\_Application\Transmission\_Line\Exclusion\_Avoidance\_Areas\_Sheets.mxd, Revised: 2/29/2016

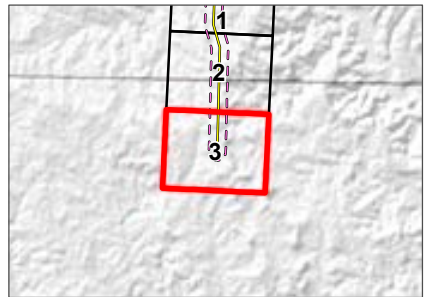
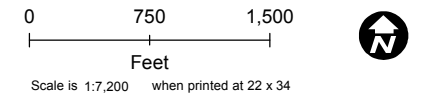
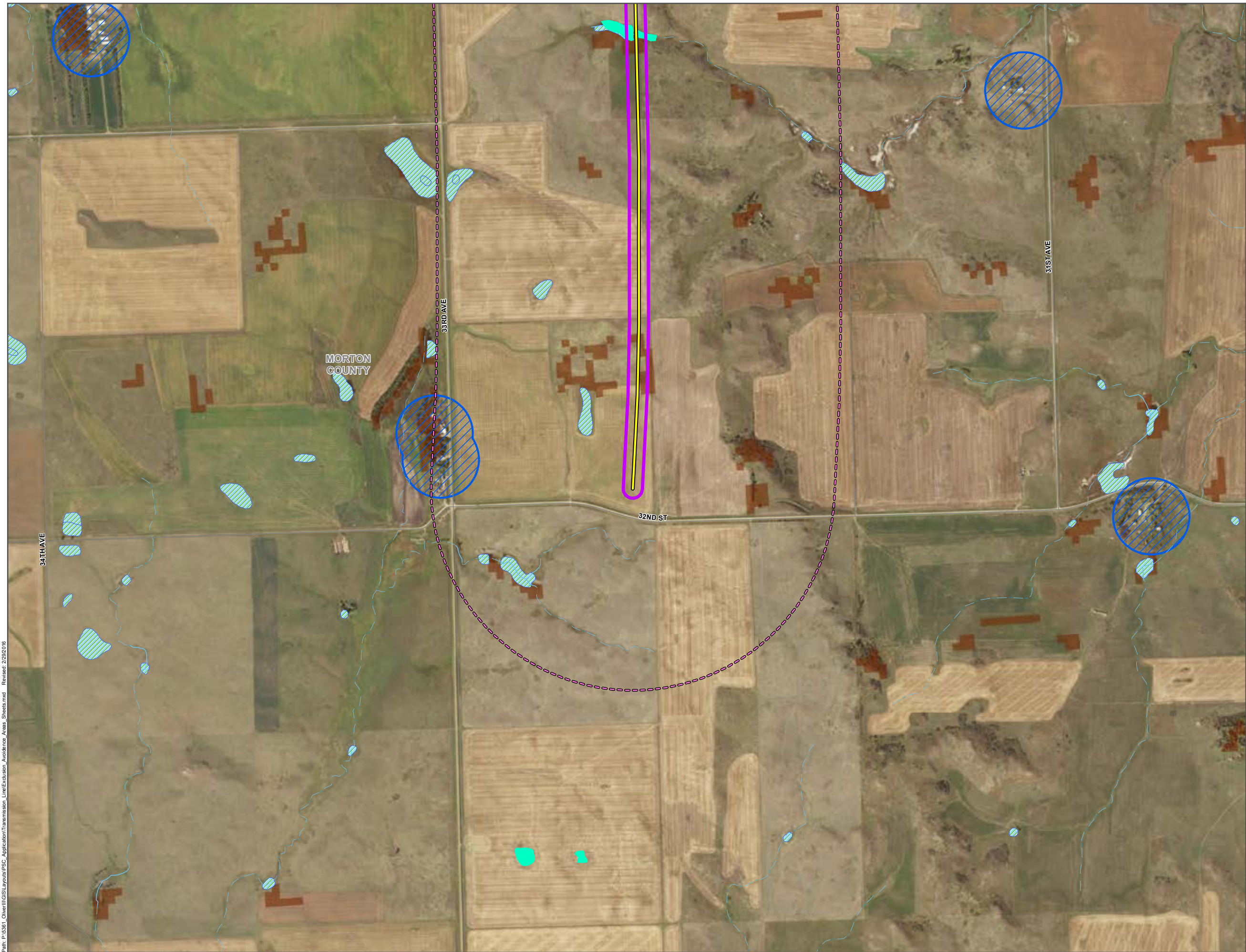
Figure 6: Exclusion and Avoidance Areas - Sheet 2

# Oliver III Transmission Line

Oliver and Morton Counties, ND

### Legend

-  Proposed Route (12/09/15)
  -  Proposed Project Corridor (250 feet wide)
  -  Proposed Switchyard (08/13/15)
  -  Study Area (0.5 mile on either side of the centerline)
  -  County Boundary
- Transportation**
-  State Highway
  -  County Road
- Avoidance Areas\***
-  Occupied Residence - 500ft buffer
- Exclusion Areas\***
- Selection Criteria**  
NWI 2014, NLCD 2011
-  Field-verified Wetlands and Streams
  -  NWI Wetland
  -  NLCD Wooded Areas\*  
\*Categories: 41, 42, 43, 90
- \*Archeological Sites Not Shown Due to Confidentiality



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Figure 6: Exclusion and Avoidance Areas - Sheet 3

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**Appendix A**  
**Excerpt of NextEra Energy, Inc.'s 2014**  
**Corporate Responsibility Report**

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2015 | CORPORATE RESPONSIBILITY  
SUSTAINABILITY REPORT

**SOLVING AMERICA'S ENERGY CHALLENGES:  
SUSTAINABLY AND RESPONSIBLY**



# Our Story

At NextEra Energy, we're proud of the role we're playing in helping solve America's energy challenges and in creating a more affordable clean energy future ... sustainably and responsibly.

To us, being sustainable and responsible means respecting our environment, investing in customer value, sustaining and growing our communities, investing in our team, and growing shareholder value.

As we continue to pursue our vision of becoming America's clean energy leader, we do so with a commitment to ensuring we are providing benefits daily for our environment, our customers, our communities, our employees and our shareholders.

We're pleased you've taken the time to learn about the NextEra Energy story, and we invite you to join us in our journey to create a more affordable clean energy future we can all be proud of.

# Delivering for OUR ENVIRONMENT



## Highlights

1. NextEra Energy achieved its lowest-ever emissions rates of SO<sub>2</sub>, NO<sub>x</sub> and CO<sub>2</sub> in 2014 – rates that were 97-, 79- and 55-percent lower, respectively, than our industry’s averages
2. We installed more than 1,600 MW of wind and solar power in 2014
3. We committed to interacting with nature in a positive manner and have developed wildlife protection programs to protect a number of species and their habitats, including eagles, kestrels, sea turtles, crocodiles, and ospreys

## Environmental Stewardship

At NextEra Energy, we're committed to being an industry leader in environmental protection and stewardship. As citizens, we're all stakeholders of our earth's environment. As an energy company, we recognize that environmental protection and stewardship are essential to the way we do business and critical to the value we deliver for our stakeholders.

Our Environmental Policy establishes our core environmental expectations and provides actionable guidance for all employees as we strive to foster a culture of environmental excellence and challenge ourselves to continuously improve. The policy is incorporated in our Code of Business Conduct & Ethics and Supplier Code of Conduct, which apply to our employees and suppliers, respectively. Everyone at NextEra Energy understands that protecting the environment is a collective responsibility. It's why our senior executives are actively involved in our environmental accountability, management and stewardship programs that are intended to:

- Design, construct, operate and maintain our facilities in an environmentally sound and responsible manner;
- Prevent pollution, minimize waste and conserve natural resources;
- Avoid, minimize and/or mitigate impacts to habitat and wildlife; and
- Engage stakeholders to build trust and partner toward common goals for environmental stewardship and protection.

We want to be the first and best source of information for our stakeholders to learn about our environmental performance and programs. That's what it means to be the clean energy leader. And that's how we deliver for the environment.



The protection of our natural environment is a fundamental part of our goal to be America's clean energy leader. We are committed to meeting our energy needs, while protecting the air, water, land and wildlife, and our exceptional environmental performance record and clean energy portfolio demonstrate just how well we are doing. These commitments are important to our employees, customers and communities and are what further enable us to deliver outstanding value to our customers and shareholders.

-Randy LaBauve, vice president of environmental services

## Toward Cleaner Air

At NextEra Energy, we're committed to being an industry leader in environmental protection and stewardship, and one of the key ways in which we've demonstrated this commitment is by making business decisions to invest in emissions-free and clean generation. This enables us to reduce our impact on the air we all breathe. In fact, NextEra Energy's generation fleet has significantly lower rates of emissions of CO<sub>2</sub>, SO<sub>2</sub> and NO<sub>x</sub> compared to the U.S. electric power industry as a whole.

At year-end 2014, NextEra Energy Resources was the world's largest generator of renewable energy from the wind and the sun. We ended 2014 with more than 11,400 megawatts of wind generation capacity and nearly 1,000 megawatts of solar generation capacity.

At FPL, we are continuing to modernize our fossil generation fleet by replacing older, inefficient oil-fired generation with state-of-the-art combined-cycle, natural gas generation. Since 2001, FPL's investments in clean, fuel-efficient power plants have saved customers more than \$7.5 billion in fuel costs and helped reduce the company's use of foreign oil by 99 percent. Because of these modernization efforts, FPL has been able to avoid more than 40 million barrels of oil, using less than 1 million barrels of oil for generation in 2014. These investments have also enabled FPL to significantly reduce power plant emissions rates and have prevented more than 85 million tons of carbon emissions to date. FPL now operates one of the most modern, clean, fuel-efficient and low-carbon generation fleets in the nation.

At NextEra Energy, we have positioned our business well to meet the challenges of new federal environmental regulations. We anticipate these new rules will significantly advance the need for low-emitting and zero-emitting electric generation. At NextEra Energy, we've positioned our business to manage the opportunities and risks presented by these new regulations while simultaneously lowering emissions.

### Reducing Our Emissions

#### SO<sub>2</sub> Emissions Rate

NEXTERA ENERGY VS. INDUSTRY:

**97% lower**  
**SO<sub>2</sub> emissions rate\***



\*Source for Electric Sector: U.S. Department of Energy

\*The environmental attributes of NextEra Energy's electric generating facilities, such as renewable energy credits, emissions reductions, offsets, allowances and the avoided emission of greenhouse gas pollutants, have been or likely will be sold or transferred to third parties, who are solely entitled to the reporting rights to any federal, state, foreign or voluntary emissions trading program and to ownership of such environmental attributes.

## NO<sub>x</sub> Emissions Rate

NEXTERA ENERGY VS. INDUSTRY:

**79% lower**  
**NO<sub>x</sub> emissions rate\***



\*Source for Electric Sector: U.S. Department of Energy

\*The environmental attributes of NextEra Energy's electric generating facilities, such as renewable energy credits, emissions reductions, offsets, allowances and the avoided emission of greenhouse gas pollutants, have been or likely will be sold or transferred to third parties, who are solely entitled to the reporting rights to any federal, state, foreign or voluntary emissions trading program and to ownership of such environmental attributes.

## CO<sub>2</sub> Emissions Rate

NEXTERA ENERGY VS. INDUSTRY AVERAGE:

# 55% lower CO<sub>2</sub> emissions rate\*

<p>NextEra Energy:</p> <p><b>538</b></p> <p>LBS / MWh</p>	<p>vs</p>	<p>U.S. electric sector rate</p> <p><b>1,186</b></p> <p>LBS / MWh</p>
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\*Source for Electric Sector: U.S. Department of Energy

\*The environmental attributes of NextEra Energy's electric generating facilities, such as renewable energy credits, emissions reductions, offsets, allowances and the avoided emission of greenhouse gas pollutants, have been or likely will be sold or transferred to third parties, who are solely entitled to the reporting rights to any federal, state, foreign or voluntary emissions trading program and to ownership of such environmental attributes.



- In 2014, FPL brought into service its Riviera Beach Next Generation Clean Energy Center – one of the cleanest, most energy-efficient plants in the nation. Over its operational lifetime, the new, fuel-efficient plant is expected to provide FPL customers with hundreds of millions of dollars in fuel and other savings. This is part of FPL's focus on modernizing its power plant fleet by replacing oil-fired plants with clean, highly efficient, combined-cycle natural gas plants such as this one. It's also a big reason parent company NextEra Energy in 2014 recorded its lowest-ever air emissions rates.

In 2014, 97 percent of the power produced by NextEra Energy facilities was generated from a diverse mix of clean or renewable sources, including wind, solar, combined-cycle natural gas and nuclear. By implementing our strategy to become America's clean energy leader, we have been able to reduce our emissions rates of SO<sub>2</sub>, NO<sub>X</sub> and CO<sub>2</sub> by 98 percent, 93 percent and 33 percent, respectively, since 1990, while at the same time growing our generation fleet by approximately 274 percent.

## **FPL Powers Formula E Electric Race with Clean Solar Energy; Student Focus Garners Statewide Honors**

FPL powered the vehicles racing in the country's first-ever electric car race, held in downtown Miami in March 2015. Part of the FIA Formula E Championship, the Miami ePrix featured the highest class of competition for electrically powered racing cars.

"Our partnership with Formula E and the Miami ePrix is another example of our commitment to advancing zero-emissions solar energy and the use of electric vehicles in Florida," said Eric Silagy, president and CEO of FPL. "By the end of 2016, we will triple the energy we are able to produce from the sun, furthering our mission to provide low-cost, reliable and clean energy to our 4.8 million customers."

FPL announced its partnership with Formula E at its Martin Next Generation Solar Energy Center, along with famed race car driver Michael Andretti and drivers in the Miami ePrix. During the announcement event, electric race cars were charged with power generated from the Martin Next Generation Solar Energy Center, one of three solar power plants operated by FPL. Earlier in the year, FPL announced plans to install more than 1 million solar panels at three additional solar power plants by the end of 2016. These new plants, combined with community-based solar installations and other small-scale arrays that FPL is installing, would total more than 225 megawatts of new solar capacity. This would effectively triple FPL's solar capacity, which currently totals approximately 110 megawatts.

"The Formula E Miami ePrix is all about sharing our passion for electric vehicles," said Alejandro Agag, CEO of Formula E Holdings. "The race series is exciting, it's entertaining, and we hope it will turn the world's attention to the potential electric vehicles have to change the way we power transportation. We are pleased to partner with FPL – a company that shares our vision for powering the future with affordable, clean energy."

"It's an honor for us to have been selected as one of the 10 founding Formula E teams for the inaugural season," said Michael Andretti, chairman and CEO of Andretti Sports Marketing.

Formula E hosts races in 10 cities around the world, including London, Beijing, Monaco and Buenos Aires. The Miami ePrix was the first Formula E race in the United States.

### **Education tie is applauded**

As part of its Formula E partnership, FPL also sponsored a student electric vehicle race. Students from schools throughout FPL's service area who are involved in science, technology, engineering and

math (STEM) programs assembled 10 electric kit cars. The student teams competed in the Formula E School Series, racing on the same track as the Miami ePrix. The grand prize was \$5,000, second-place \$2,500 and third-place \$1,500. All prizes support STEM or robotics initiatives of the winning school teams.

The effort was hailed by Miami-Dade County Public Schools Superintendent Alberto M. Carvalho, who chose FPL for the Florida Commissioner of Education's Corporate Business Recognition Award. "Miami-Dade County Public Schools and its students have benefitted tremendously from FPL's support of STEM initiatives," said Superintendent Carvalho. "Their commitment has enriched the learning environment by providing additional resources in our classrooms and giving students invaluable real-life learning experiences."

"We are proud of our long-time partnership with Miami-Dade County Public Schools and of the difference we are making in our classrooms," said Eric Silagy, president and CEO of FPL. "FPL is honored to be recognized for our involvement inside and outside the classroom. Together with the school district, we are making Miami an even better place to work and raise a family."

## Wildlife and Habitat Preservation

At NextEra Energy, we're committed to being an industry leader in environmental protection and stewardship, and that includes wildlife and habitat protection. We have operations across the U.S. and Canada, so we are keenly aware of the potential impacts that existing and future operations may have to wildlife and their habitat. This is why we have environmental policies and programs in place at both the corporate and local levels to avoid and minimize these impacts and to address any remaining impacts through appropriate mitigation measures. Here's what we do:

- Before we build a power plant or other electric facilities, we work hard to make sure we understand the local ecosystem and what it takes to be a partner in its preservation and to be a good neighbor to all the species that live there.
- As part of that work, we consider the presence of any threatened or endangered species and the proximity to valuable wildlife corridors, wetlands or other ecologically important areas. We make efforts to avoid these areas entirely. If we can't do that, we seek to minimize and mitigate the impact of our developments to affected areas.
- Once a project is operating, we continue to monitor potential impacts to biodiversity that may occur. For example, at wind sites, we implement a voluntary Wildlife Response and Reporting System (WRRS) to monitor long-term avian and bat interactions. We also voluntarily adhere to the FWS Wind Energy Guidelines that were issued in 2012, and conduct a minimum of one year of formal post-construction mortality monitoring at all U.S. wind sites constructed after March 2012.
- In Ontario, our company complies with Ministry of Natural Resources guidance, which requires that we perform a minimum of three years of post-construction mortality monitoring for birds and bats, in addition to other project-specific monitoring conditions.

We have long adhered to numerous policies and programs to protect threatened and endangered species. We follow all federal and state regulations including the Endangered Species Act (ESA), which is administered by the U.S. Fish and Wildlife Service (FWS) and the U.S. National Marine Fisheries Service (NMFS). We also go above and beyond those regulations by making important contributions to protect a number of vulnerable species and habitat areas. Some examples of our wildlife-related programs are featured below.



- FPL has donated 130 concrete power poles to an artificial reef program managed by St. Lucie County, Florida. The poles provide additional habitat for marine life. Area fishing and diving businesses also benefit.

## Eagle Nest Platforms



- For many centuries, eagles have represented strength, courage and power. That's been true not only in the U.S. ? where the bald eagle has been our national symbol since the late 1700s ? but in countries the world over.
- During early construction of NextEra Energy's Summerhaven Wind Energy Centre in Ontario in late 2012, Canada, a pair of eagles began building a new nest within the project area. For three years prior, the area had been monitored and no nest had been found.
- After consulting with the Ontario Ministry of Natural Resources and receiving their approval, we removed the tree and nest in January 2013 to eliminate a potential hazard to the eagles and to give the birds time to build a new nest or find another one prior to their breeding season.
- From early January through late February 2013, a team of experts installed five eagle platforms near the Lake Erie shoreline in the general vicinity of the original nest, but at a safe distance from the turbines, to provide alternative nesting sites for this pair of eagles and other pairs in the local eagle population.
- To our delight, a pair of eagles was documented to have successfully raised young in one of these nests in the summer of 2013. The eagles returned in 2014 and successfully raised two chicks.
- See the following website for more information, including photographs and a video of the eagles.

### Nesting platform success in Florida



- Bald eagles are found in all 50 U.S. states, including throughout FPL's service territory in Florida.
- In the fall of 2013, a bald eagle built its nest on a 230-kV transmission line in Volusia County, Fla. To protect the nest and the eagles that would be raising their family in it, and because the surrounding area lacked viable nest trees, FPL for the first time ever constructed an independent pole and platform to provide the birds with a nearby nest location. With input from the Florida Fish and Wildlife Conservation Commission and

the U.S. Fish and Wildlife Service, the platform was designed to provide long-term support of the nest. Within 45 days of the nest transfer, a pair of eagles began to add onto and occupy the nest, and in 2014, a baby eaglet hatched in the nest!

## Duette Preserve – Kestrel Boxes



- The colorful Southeastern American Kestrel is the smallest falcon in North America. Unfortunately, its numbers have dwindled so much that researchers cannot say how many of the threatened species still exist in Florida.
- In March 2013, while installing new, more storm-resilient power line poles and replacing old wooden poles in an area of its service territory, FPL identified an opportunity to assist the kestrel. Line workers attached kestrel boxes to four of the new poles - a first for the company - and also preserved the old wooden poles that contained inactive nests.
- In 2015, as FPL continues to upgrade the poles in this area of Kestrel habitat, we've included nest boxes on an additional 20 poles. We're also working with the Audubon Society toward a program to monitor the boxes for nesting success.

## We're No. 1 in Wind

At NextEra Energy, we're the No. 1 owner of wind energy in North America. We operate approximately 11,400 MW of emissions-free wind energy, enough to power a city the size of Chicago - the "Windy City." Our wind program helps us deliver reliable and affordable energy to customers with a focus on environmental stewardship. Wind energy is an especially attractive source of electric power because:

- wind farms can be constructed quickly,
- they use no water and produce no solid waste or air emissions,
- there are no fuel costs because wind is free,
- many customers are requesting electricity produced only from renewables such as wind, and
- the price of wind energy is low and competitive with other forms of power generation.

### NORTH AMERICA'S LARGEST GENERATOR OF WIND POWER

## 107 wind facilities

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**9,899 individual  
wind turbines**

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**19 U.S. states and  
4 Canadian provinces**

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Avoided CO<sub>2</sub> emissions of  
**30 million tons**  
due to wind generation

In 2012, we set an aggressive goal for additions to our U.S. wind portfolio, and through diligence and hard work, we exceeded it. We commissioned roughly 1,500 MW of wind in the United States, a milestone no other company has ever achieved. In fact, we celebrated the commissioning of our 10,000th MW of wind at our 400-MW Limon Wind Project in Colorado in December 2012. Not only did this record building program result in 1,500 MW of zero-emissions generation, it also helped us

deliver for our communities by creating more than 3,000 construction jobs, 90 full-time jobs, and new tax revenue that state and local governments use to meet pressing community needs.

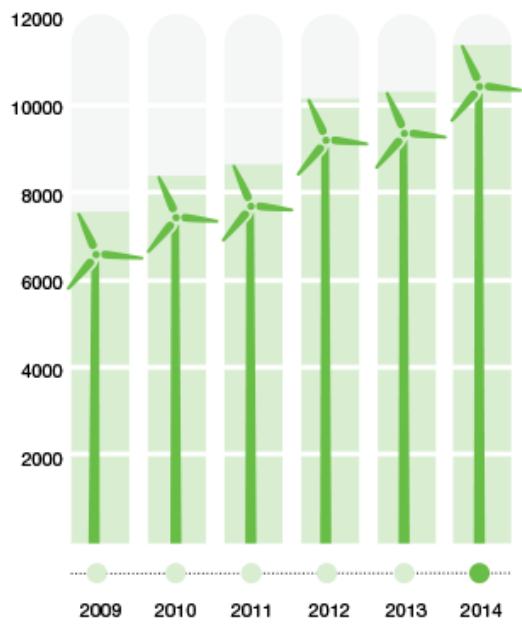
Roughly  
**1,500 MW**  
**of wind**  
**commissioned in 2012**  
— a milestone  
**no other company**  
**has ever achieved**

At NextEra Energy Resources, our wind portfolio grew in 2014 by approximately 1,300 MW, including facilities in Oklahoma, Colorado and Texas, as well as four wind sites in Ontario, Canada.

We now have wind projects in 19 states and four Canadian provinces, representing a total capital investment of more than \$20.1 billion and a fleet size that is comparable to the generation capacity of a top-15 utility.

## WIND ENERGY PORTFOLIO

### CUMULATIVE MW



- Enough emissions-free wind energy can be generated at our Vasco Wind Energy Center in California to power more than 19,500 homes.



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**Appendix B**  
**Agency Notification Letters and Responses**

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## **Correspondence with U.S. Fish and Wildlife Service**



**From:** [Griger, Anne Marie](#)  
**To:** [Wells, Kimberly \(Kimberly.Wells@nexteraenergy.com\)](mailto:Wells_Kimberly@nexteraenergy.com)  
**Cc:** [McCall, Sarah](#); [Farmer, Chris](#)  
**Subject:** FW: Project shapefiles for Brady, Brady II, and Oliver III  
**Date:** Wednesday, January 20, 2016 7:12:24 AM

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Kim, see below. This is confirmation from USFWS that there are no easements or USFWS-owned lands in or adjacent to the Brady, Brady II, or Oliver III project areas. This was an action item from your December meeting with USFWS.

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**From:** Sue Kvas [mailto:[sue\\_kvas@fws.gov](mailto:sue_kvas@fws.gov)]  
**Sent:** Wednesday, January 20, 2016 8:10 AM  
**To:** Griger, Anne Marie <[Anne-Marie.Griger@tetrattech.com](mailto:Anne-Marie.Griger@tetrattech.com)>  
**Subject:** RE: Project shapefiles for Brady, Brady II, and Oliver III

Hey Anne-Marie,

I reviewed your project area and there are no USFWS interests in the areas you provided.

Thanks,

Sue

Susan Kvas  
Supervisory Fish and Wildlife Biologist  
US Fish & Wildlife Service  
Habitat and Population Evaluation Team – HAPET  
3425 Miriam Ave.  
Bismarck, ND 58503  
Office : 701-355-8541

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**From:** Griger, Anne Marie [mailto:[Anne-Marie.Griger@tetrattech.com](mailto:Anne-Marie.Griger@tetrattech.com)]  
**Sent:** Tuesday, January 19, 2016 11:14 AM  
**To:** [sue\\_kvas@fws.gov](mailto:sue_kvas@fws.gov)  
**Subject:** RE: Project shapefiles for Brady, Brady II, and Oliver III

Hello Sue,

Can you please let me know if you received this email from last week, or if you need me to re-send? I sent unzipped shapefiles.

Thank you,

Anne-Marie

---

**From:** Griger, Anne Marie

**Sent:** Monday, January 11, 2016 4:43 PM

**To:** 'sue\_kvas@fws.gov' <sue\_kvas@fws.gov>

**Cc:** Farmer, Chris <Chris.Farmer@tetrattech.com>; Wells, Kimberly (Kimberly.Wells@nexteraenergy.com) <Kimberly.Wells@nexteraenergy.com>; 'laura.nagy@dnvgl.com' <laura.nagy@dnvgl.com>; McCall, Sarah <Sarah.McCall@tetrattech.com>

**Subject:** Project shapefiles for Brady, Brady II, and Oliver III

Hello Sue,

Can you please confirm there are no easements or fee-title lands within or near the Brady, Brady II, and Oliver III project areas? Shapefiles of each are attached. I believe that there are no easements west of the Missouri River in North Dakota, but wanted to confirm.

Thank you,

Anne-Marie

**Anne-Marie Griger, AICP** | Senior Environmental Planner

Direct: 512. 213.8501

[anne-marie.griger@tetrattech.com](mailto:anne-marie.griger@tetrattech.com)

**Tetra Tech, Inc.**

8911 N. Capital of Texas Hwy, Bldg 2 Suite # 2310

Austin, TX 78759

## **Correspondence with North Dakota Game and Fish Department**



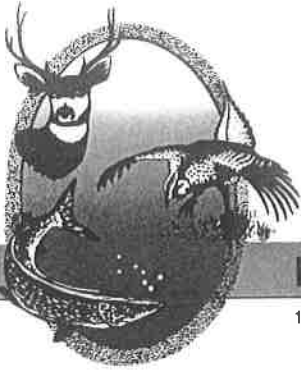
**From:** [Schumacher, John D.](#)  
**To:** [McCall, Sarah](#)  
**Subject:** Oliver III Wind Energy Center  
**Date:** Wednesday, February 10, 2016 10:15:04 AM  
**Attachments:** [OliverIII.pdf](#)

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Ms. McCall,

The North Dakota Game and Fish Department originally provided comments regarding this project on 24 December 2015. We have reviewed the project as updated and have nothing additional to offer. Our original comments are still applicable.

**JOHN SCHUMACHER**  
**RESOURCE BIOLOGIST**  
**ND GAME AND FISH DEPT**  
**701.328.6321**



"VARIETY IN HUNTING AND FISHING"

## NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

December 24, 2015

Sarah McCall  
Tetra Tech, Inc.  
350 Indiana Street, Suite 500  
Golden, CO 80401

Dear Ms. McCall:

RE: Oliver III Wind Energy Center – Oliver & Morton Counties, North Dakota  
NextEra Energy Resources, LLC

The North Dakota Game and Fish Department has reviewed this project for wildlife concerns.

A primary concern with wind power development is the disturbance of native prairie associated with construction of turbines, access roads, and other associated facilities. We ask that work within native prairie be avoided to the extent possible. This could include micro-siting turbines onto adjacent previously disturbed land, locating access roads on existing section line trails rather than across undisturbed native prairie, etc. We also suggest the US Fish and Wildlife Service Land-Based Wind Energy Guidelines be implemented as appropriate during the development of this project.

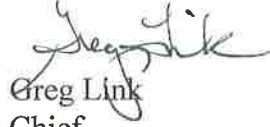
The National Wetland Inventory indicates various wetlands located within the proposed project area. We recommend that any unavoidable wetland impacts be replaced in kind, above-ground appurtenances not be placed in wetland areas, and no alterations be made to existing drainage patterns.

We ask that collection lines be buried whenever possible, and any necessary overhead lines be marked when placed over perennial streams or sited in close proximity to wetland complexes to minimize possible avian impacts. The publication "Reducing Avian Collisions with Power Lines: the State of the Art in 2012" provides a range of management options which can be used to reduce avian losses.

Aerial surveys should be conducted for raptor nests before construction begins. A ½-mile construction buffer should be implemented around active eagle nest sites (known occupied within the past 5 years). Ms. Sandra Johnson, Conservation Biologist, can be contacted at 701-328-6327 for additional information on eagle nest sites in the state.

We also recommend that routine monitoring for avian and bat mortality be included as part of the facility maintenance plan for the life of the project. We would appreciate being kept informed as this project progresses, and if possible, we would like the GPS coordinates for each turbine after the site has been established.

Sincerely,



Greg Link  
Chief  
Conservation & Communication Division

js



**From:** [Griger, Anne Marie](mailto:Griger, Anne Marie)  
**To:** [McCall, Sarah](mailto:McCall, Sarah)  
**Subject:** FW: Prairie dog database  
**Date:** Tuesday, January 26, 2016 10:49:50 AM

---

**From:** Johnson, Sandra K. [mailto:sajohnson@nd.gov]  
**Sent:** Wednesday, January 13, 2016 3:03 PM  
**To:** Griger, Anne Marie <Anne-Marie.Griger@tetrattech.com>  
**Subject:** RE: Prairie dog database

Anne-Marie,

Attached is a data sharing agreement for the prairie dog and burrowing owl data. There are no known locations within the Oliver III buffer. Please note that we have revised the agreement to include a 4<sup>th</sup> condition. Your organization has been courteous and provided eagle data in return to us in the past. However, others have not and therefore we added it to the agreement.

Thanks,  
Sandy

*Sandy Johnson*  
*Conservation Biologist*  
*North Dakota Game and Fish Department*  
*100 N. Bismarck Expwy.*  
*Bismarck, ND 58501-5095*  
*Phone: 701-328-6382*  
[sajohnson@nd.gov](mailto:sajohnson@nd.gov)  
<http://gf.nd.gov/>

---

**From:** Griger, Anne Marie [mailto:Anne-Marie.Griger@tetrattech.com]  
**Sent:** Monday, January 11, 2016 10:05 AM  
**To:** Johnson, Sandra K. <sajohnson@nd.gov>  
**Cc:** Wells, Kimberly ([Kimberly.Wells@nexteraenergy.com](mailto:Kimberly.Wells@nexteraenergy.com)) <Kimberly.Wells@nexteraenergy.com>; Farmer, Chris <Chris.Farmer@tetrattech.com>; 'laura.nagy@dnvgl.com' <laura.nagy@dnvgl.com>; McCall, Sarah <Sarah.McCall@tetrattech.com>  
**Subject:** Prairie dog database

Hello Sandy,

As follow up from a meeting that John Schumacher attended with our client NextEra, I wanted to get further information regarding prairie dog colonies and grouse in Hettinger and Stark counties. Can you please provide the prairie dog database? I have attached shapefiles that show three project boundaries (Brady, Brady II, and Oliver III), plus a 10-mile buffer around each.

We have already signed a confidentiality agreement with you for eagle nests for all three projects, so let me know if we need to sign another. Also, I left you a voicemail last week, so please give me a call when you have a chance.

Thank you,

Anne-Marie

**Anne-Marie Griger, AICP** | Senior Environmental Planner

Direct: 512. 213.8501

[anne-marie.griger@tetrattech.com](mailto:anne-marie.griger@tetrattech.com)

**Tetra Tech, Inc.**

8911 N. Capital of Texas Hwy, Bldg 2 Suite # 2310

Austin, TX 78759

-

## Griger, Anne Marie

---

**From:** Robinson, Aaron C. <acrobinson@nd.gov>  
**Sent:** Wednesday, February 03, 2016 10:14 PM  
**To:** Griger, Anne Marie  
**Subject:** RE: Grouse info for Brady, Brady II and Oliver III projects

Anne – I looked through our database and the areas where you have the wind farms proposed do not overlap with our grouse census blocks. That does not mean that there are no grouse leks in the area, we just don't have the man power to survey the entire state. My recommendation would be to allow me to help design a survey protocol for both these areas. The oliver block it in prime grouse habitat and the Brady block is also in good sharp-tail habitat. Please give me a call so we can discuss this further.

Regards,  
Aaron

\*\*\*\*\*

*Aaron Robinson*

Upland Game Management Supervisor  
North Dakota Game and Fish  
225 30th Ave. SW  
Dickinson, ND 58601  
Cell: 701-290-1370  
[acrobinson@nd.gov](mailto:acrobinson@nd.gov)  
[www.gf.nd.gov](http://www.gf.nd.gov)

---

**From:** Griger, Anne Marie [mailto:Anne-Marie.Griger@tetrattech.com]  
**Sent:** Monday, January 11, 2016 3:37 PM  
**To:** Robinson, Aaron C. <acrobinson@nd.gov>  
**Cc:** Farmer, Chris <Chris.Farmer@tetrattech.com>; 'laura.nagy@dnvgl.com' <laura.nagy@dnvgl.com>; Wells, Kimberly (Kimberly.Wells@nexteraenergy.com) <Kimberly.Wells@nexteraenergy.com>; McCall, Sarah <Sarah.McCall@tetrattech.com>  
**Subject:** Grouse info for Brady, Brady II and Oliver III projects

Hello Aaron,

As follow up from a meeting that John Schumacher attended with our client NextEra, I would like to request information you have regarding sage grouse locations in Hettinger and Stark counties. I have attached shapefiles that show two project boundaries (Brady and Brady II), plus a 10-mile buffer around each. If you also have locations of other known grouse or grouse leks in the vicinity of these areas or near the Oliver III project in Morton and Oliver counties (shapefiles also attached), we would appreciate that information as well.

Thank you,

Anne-Marie  
**Anne-Marie Griger, AICP** | Senior Environmental Planner  
Direct: 512. 213.8501  
[anne-marie.griger@tetrattech.com](mailto:anne-marie.griger@tetrattech.com)

**Tetra Tech, Inc.**  
8911 N. Capital of Texas Hwy, Bldg 2 Suite # 2310  
Austin, TX 78759

## **Correspondence with U.S. Army Corps of Engineers**





DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, OMAHA DISTRICT  
NORTH DAKOTA REGULATORY OFFICE  
1513 SOUTH 12TH STREET  
BISMARCK ND 58504-6640

January 20, 2016

North Dakota Regulatory Office

[NWO-2015-2305-BIS]

Ms. Sarah McCall  
Tetra Tech  
350 Indiana Street, Suite 500  
Golden, Colorado 80401

Dear Ms. McCall:

This is in response to your letter dated January 14, 2016 requesting comments on the proposed Oliver III Wind Energy Center in Oliver and Morton counties. The project is located in several sections of townships 140 and 141 North, ranges 82, 83 and 84 West, Oliver and Morton counties, North Dakota.

U. S. Army Corps of Engineers Regulatory Offices administer Section 10 of the Rivers and Harbors Act (Section 10) and Section 404 of the Clean Water Act (Section 404). A Section 10 permit would be required for work impacting navigable waters, this includes work over, through, or under Section 10 waters. A Section 404 permit would be required for 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.

If the project requires a Section 10/404 permit, a permit application and instructions for completion may be found at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/ObtainPermit.aspx>. If you do not have access to a computer, you may call this office and request a copy of the permit application and instructions be sent to you.

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

Sincerely,

*Benjamin D. Keile*

for Patricia L. McQueary  
Regulatory Program Manager  
North Dakota

Received

JAN 25 2016

TETRA TECH  
GOLDEN OFFICE



## **Correspondence with State Historical Society of North Dakota**



**From:** [Quinnell, Susan L.](#)  
**To:** [Sexton, James](#); [Griger, Anne Marie](#)  
**Cc:** [Holven, Adam](#); [Wells, Kimberly \(Kimberly.Wells@nexteraenergy.com\)](#); [Estabrook, Richard \(Richard.Estabrook@nexteraenergy.com\)](#); [McCall, Sarah](#)  
**Subject:** RE: 160485B ND PSC Proposed Oliver III (revised) Wind Energy Center  
**Date:** Tuesday, February 02, 2016 10:06:14 AM

---

Yes, it is set as stated.

Susan Quinnell  
Review and Compliance Coordinator  
ND State Historic Preservation Office  
State Historical Society of North Dakota  
North Dakota Heritage Center  
612 East Boulevard Avenue  
Bismarck ND 58505-0830

701-328-3576  
701-328-3710 FAX

---

**From:** Sexton, James [mailto:James.Sexton@tetrattech.com]  
**Sent:** Tuesday, February 02, 2016 11:05 AM  
**To:** Quinnell, Susan L.; Griger, Anne Marie  
**Cc:** Holven, Adam; Wells, Kimberly (Kimberly.Wells@nexteraenergy.com); Estabrook, Richard (Richard.Estabrook@nexteraenergy.com); McCall, Sarah  
**Subject:** 160485B ND PSC Proposed Oliver III (revised) Wind Energy Center

Hi, Susan –

I hope this finds you well. I wanted to touch base to clarify the Oliver III APE for historic architecture. As I am sure you remember, we spoke in the middle of January about the Oliver III APE as part of a call with NextEra and Tetra Tech discussing both the Oliver III and Brady Wind Energy Centers. After we provided you with shape files of the Project boundary you confirmed that a 2 mile APE would be sufficient for that project (see email below). About 10 days after receipt of your email our Golden, CO office received a letter from your office stating that the APE for the project would be 2 miles “but that APE may be modified larger or smaller, depending on those specific turbine locations.” Can you confirm if the 2-mile APE is set at this time, assuming that there are no alterations to the current project boundary?

Many thanks.  
James

James Sexton, Ph. D. | Architectural Historian  
Direct: 973.630.8408 | Fax: 973.630.8025 | Cell: 914.527.6416 [James.Sexton@tetrattech.com](mailto:James.Sexton@tetrattech.com)

Tetra Tech | Sciences  
1000 The American Road | Morris Plains, NJ 07950 | [www.tetrattech.com](http://www.tetrattech.com)

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P Think Green - Not every email needs to be printed.

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**From:** Quinnell, Susan L. [<mailto:squinnell@nd.gov>]  
**Sent:** Friday, January 15, 2016 1:53 PM  
**To:** Griger, Anne Marie  
**Cc:** Holven, Adam; Wells, Kimberly ([Kimberly.Wells@nexteraenergy.com](mailto:Kimberly.Wells@nexteraenergy.com)); Estabrook, Richard ([Richard.Estabrook@nexteraenergy.com](mailto:Richard.Estabrook@nexteraenergy.com)); Sexton, James; McCall, Sarah  
**Subject:** RE: Brady II and Oliver III shapefiles

Yes, two miles would be adequate.

Susan Quinnell  
Review and Compliance Coordinator  
ND State Historic Preservation Office  
State Historical Society of North Dakota  
North Dakota Heritage Center  
612 East Boulevard Avenue  
Bismarck ND 58505-0830

701-328-3576  
701-328-3710 FAX

---

**From:** Griger, Anne Marie [<mailto:Anne-Marie.Griger@tetrattech.com>]  
**Sent:** Friday, January 15, 2016 12:51 PM  
**To:** Quinnell, Susan L.  
**Cc:** Holven, Adam; Wells, Kimberly ([Kimberly.Wells@nexteraenergy.com](mailto:Kimberly.Wells@nexteraenergy.com)); Estabrook, Richard ([Richard.Estabrook@nexteraenergy.com](mailto:Richard.Estabrook@nexteraenergy.com)); Sexton, James; McCall, Sarah  
**Subject:** RE: Brady II and Oliver III shapefiles

Thank you Susan. Can you please confirm that a survey area for architectural resources consisting of a 2-mile buffer around planned turbines is acceptable for the Brady II and Oliver III projects?

Thank you,

Anne-Marie

---

**From:** Quinnell, Susan L. [<mailto:squinnell@nd.gov>]  
**Sent:** Friday, January 15, 2016 12:45 PM  
**To:** Griger, Anne Marie <[Anne-Marie.Griger@tetrattech.com](mailto:Anne-Marie.Griger@tetrattech.com)>

**Subject:** RE: Brady II and Oliver III shapefiles

Hi Anne-Marie,

I downloaded the shape files for these two and there isn't anything remarkable about these areas. Your cultural resource specialists should complete the Class I records search and the rest of the inventory per the usual instructions.

Our survey manual was recently updated but no major revisions:

<http://history.nd.gov/hp/PDFinfo/North-Dakota-SHPO-Guidelines-Manual-for-Cultural-Resource-Inventory-Projects.pdf>

Best wishes,

Susan Quinnell  
Review and Compliance Coordinator  
ND State Historic Preservation Office  
State Historical Society of North Dakota  
North Dakota Heritage Center  
612 East Boulevard Avenue  
Bismarck ND 58505-0830

701-328-3576

701-328-3710 FAX

---

**From:** Anne-Marie Griger [<mailto:Anne-Marie.Griger@tetrattech.com>]

**Sent:** Friday, January 15, 2016 12:13 PM

**To:** Quinnell, Susan L.

**Subject:** Brady II and Oliver III shapefiles

Click the links below to download the files. Files will expire Fri Jan 29 12:11:49 2016.

[BradyII\\_Boundary\\_PSC\\_Application.zip \(4,005 bytes\)](#)

[ND\\_Oliver\\_III\\_PrjBnd\\_Update\\_20160113.zip \(19,572 bytes\)](#)

Package details:

From: [AnneMarie.Griger@tt](mailto:AnneMarie.Griger@tt)

To: [squinnell@nd.gov](mailto:squinnell@nd.gov)

Subject: Brady II and Oliver III shapefiles

Arrived: Fri Jan 15 12:11:43 2016

Susan, these links are for the Brady II and Oliver III project boundary shapefiles. Please confirm receipt and let me know if you have any problems accessing the files.

Thank you,

Anne-Marie

Total file size: 23,577 bytes



**STATE  
HISTORICAL  
SOCIETY  
OF NORTH DAKOTA**

**Received**

**JAN 26 2016**

**TETRA TECH  
GOLDEN OFFICE**

Jack Dalrymple  
*Governor of North Dakota*

January 20, 2016

North Dakota  
State Historical Board

Ms. Sarah McCall  
Tetra Tech Inc.  
350 Indiana Street, Suite 500  
Golden, CO 80401

Margaret Puetz  
*Bismarck - President*

**ND SHPO REF: 16-0485B ND PSC Proposed Oliver III (revised) Wind Energy Center by NextEra Energy Resources, LLC in Morton & Oliver Counties, North Dakota**

Gereld Gerntholz  
*Valley City - Vice President*

Dear Ms. McCall,

Albert I. Berger  
*Grand Forks - Secretary*

Thank you for your preliminary information on ND SHPO REF: 16-0485 ND PSC Proposed Oliver III (revised) Wind Energy Center by NextEra Energy Resources, LLC in Morton & Oliver Counties, North Dakota. There is potential for unrecorded and recorded cultural resource properties in a variety of physiographic settings in the overall project area. As a potential federal/state undertaking, we encourage early agency consultation as part of the review process. Early consultation should also include tribal nations, and North Dakota Indian Affairs.

Calvin Grinnell  
*New Town*

Diane K. Larson  
*Bismarck*

We recommend a Class I (file search), and a Class III survey by a permitted architectural historian for standing buildings and structures (including cemeteries) over 50 years old in the visual Area of Potential Effect (APE). This is within a 2 mile radius of individual turbine locations, but that APE may be modified larger or smaller, depending on those specific turbine locations. When the wind farm project develops to the point that turbine locations are defined, we want to see a map of the turbine locations to see if there needs to be any modifications to the APE.

Chester E. Nelson, Jr.  
*Bismarck*

A. Ruric Todd III  
*Jamestown*

Class III archeological (pedestrian) surveys will be warranted for all areas directly impacted by the project, **including crane paths, met towers**, access roads, staging areas, transmissions lines and turbine pads. As part of the Class III Inventory, NDCRS site updates should be submitted on all sites resurveyed. If the project APE changes, we will request additional inventories, surveys and consultation. As you know, Class III surveys must wait until there is no snow on the ground.

Sara Otte Coleman  
*Director  
Tourism Division*

Kelly Schmidt  
*State Treasurer*

Thank you for the opportunity to review this project to date. We look forward to further review of cultural resource surveys and site forms, and updates as the project siting occurs. If you have any questions please contact Paul Picha, Chief Archaeologist (701) 328-3574 or Susan Quinnell, Review and Compliance Coordinator at (701) 328-3576, e-mail [squinnell@nd.gov](mailto:squinnell@nd.gov)

Alvin A. Jaeger  
*Secretary of State*

Mark Zimmerman  
*Director  
Parks and Recreation  
Department*

Sincerely,

Claudia J. Berg, Director State Historical Society of North Dakota

Grant Levi  
*Director  
Department of Transportation*

Claudia J. Berg  
*Director*

Accredited by the  
American Alliance  
of Museums since 1986

**From:** [Quinnell, Susan L.](mailto:Quinnell.Susan.L)  
**To:** [Griger, Anne Marie](mailto:Griger, Anne Marie)  
**Cc:** [Holven, Adam](mailto:Holven, Adam); [Wells, Kimberly \(Kimberly.Wells@nexteraenergy.com\)](mailto:Wells, Kimberly (Kimberly.Wells@nexteraenergy.com)); [Estabrook, Richard \(Richard.Estabrook@nexteraenergy.com\)](mailto:Estabrook, Richard (Richard.Estabrook@nexteraenergy.com)); [Sexton, James](mailto:Sexton, James); [McCall, Sarah](mailto:McCall, Sarah)  
**Subject:** RE: Brady II and Oliver III shapefiles  
**Date:** Friday, January 15, 2016 11:52:45 AM

---

Yes, two miles would be adequate.

Susan Quinnell  
Review and Compliance Coordinator  
ND State Historic Preservation Office  
State Historical Society of North Dakota  
North Dakota Heritage Center  
612 East Boulevard Avenue  
Bismarck ND 58505-0830

701-328-3576  
701-328-3710 FAX

---

**From:** Griger, Anne Marie [mailto:Anne-Marie.Griger@tetrattech.com]  
**Sent:** Friday, January 15, 2016 12:51 PM  
**To:** Quinnell, Susan L.  
**Cc:** Holven, Adam; Wells, Kimberly (Kimberly.Wells@nexteraenergy.com); Estabrook, Richard (Richard.Estabrook@nexteraenergy.com); Sexton, James; McCall, Sarah  
**Subject:** RE: Brady II and Oliver III shapefiles

Thank you Susan. Can you please confirm that a survey area for architectural resources consisting of a 2-mile buffer around planned turbines is acceptable for the Brady II and Oliver III projects?

Thank you,

Anne-Marie

---

**From:** Quinnell, Susan L. [mailto:squinnell@nd.gov]  
**Sent:** Friday, January 15, 2016 12:45 PM  
**To:** Griger, Anne Marie <[Anne-Marie.Griger@tetrattech.com](mailto:Anne-Marie.Griger@tetrattech.com)>  
**Subject:** RE: Brady II and Oliver III shapefiles

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Our survey manual was recently updated but no major revisions:

<http://history.nd.gov/hp/PDFInfo/North-Dakota-SHPO-Guidelines-Manual-for-Cultural-Resource-Inventory-Projects.pdf>

Best wishes,

Susan Quinnell  
Review and Compliance Coordinator  
ND State Historic Preservation Office  
State Historical Society of North Dakota  
North Dakota Heritage Center  
612 East Boulevard Avenue  
Bismarck ND 58505-0830

701-328-3576  
701-328-3710 FAX

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**From:** Anne-Marie Griger [<mailto:Anne-Marie.Griger@tetrattech.com>]  
**Sent:** Friday, January 15, 2016 12:13 PM  
**To:** Quinnell, Susan L.  
**Subject:** Brady II and Oliver III shapefiles

Click the links below to download the files. Files will expire Fri Jan 29 12:11:49 2016.  
[BradyII\\_Boundary\\_PSC\\_Application.zip \(4,005 bytes\)](#)  
[ND\\_Oliver\\_III\\_PrjBnd\\_Update\\_20160113.zip \(19,572 bytes\)](#)

Package details:  
From: [AnneMarie.Griger@tt](mailto:AnneMarie.Griger@tt)  
To: [squinnell@nd.gov](mailto:squinnell@nd.gov)  
Subject: Brady II and Oliver III shapefiles  
Arrived: Fri Jan 15 12:11:43 2016

Susan, these links are for the Brady II and Oliver III project boundary shapefiles. Please confirm receipt and let me know if you have any problems accessing the files.

Thank you,

Anne-Marie

Total file size: 23,577 bytes



## **Correspondence with North Dakota Parks and Recreation Department**





Jack Dalrymple, Governor  
Mark A. Zimmerman, Director  
1600 East Century Avenue, Suite 3  
Bismarck, ND 58503-0649  
Phone 701-328-5357  
Fax 701-328-5363  
E-mail [parkrec@nd.gov](mailto:parkrec@nd.gov)  
[www.parkrec.nd.gov](http://www.parkrec.nd.gov)

February 12, 2016-**Revised**

Sarah McCall  
Tetra Tech, Inc  
350 Indiana Street, Suite 500  
Golden, CO 80401

Re: Oliver III Wind Energy

Dear Ms. McCall,

The North Dakota Parks and Recreation Department has reviewed the above referenced proposed Oliver III Wind Energy Center Project in Oliver and Morton Counties.

Our agency scope of authority and expertise covers recreation and biological resources (in particular rare plants and ecological communities). The project as defined does not affect state park lands that we manage or affect state Land and Water Conservation Fund (LWCF) project sites that we manage.

The North Dakota Natural Heritage biological conservation database has been reviewed to determine if any 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, there are no documented significant ecological community, plant or animal species of concern occurrences in our database within or adjacent to project area. Because this information is not based on a comprehensive inventory, there may be species of concern or otherwise significant ecological communities in the area that are not represented in the database. The lack of data for any project area cannot be construed to mean that no significant features are present. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. Regarding any reclamation efforts, we recommend that any impacted areas be revegetated with species native to the project area.

Given the potential for not only habitat disturbance and disruption but the threat to nesting, feeding and migratory bird and bats in the area we suggest that all efforts be made to avoid impacts to wildlife species and their habitats. In an effort to avoid or minimize impacts to wildlife and their habitats we encourage proper evaluation of all potential wind energy sites. To identify and assess adverse impacts to wildlife we suggest pre and post construction avian and bat monitoring studies be conducted.

We appreciate your commitment to rare plant, animal and ecological community conservation, management and inter-agency cooperation to date. For additional information please contact Kathy Duttonhefner (701-328-5370 or [kgduttonhefner@nd.gov](mailto:kgduttonhefner@nd.gov)) of our staff. Thank you for the opportunity to comment on this proposed project.

Sincerely,

A handwritten signature in blue ink that reads "Kathy Duttonhefner".

Kathy Duttonhefner, Coordinator  
Natural Resources Division

R.USNDNHI\*2016\_019KD2.12.2016DL2.12.2016

• • • • •  
*Play in our backyard!*



**Correspondence with North Dakota Department of Health**





February 2, 2016

**Received**

Ms. Sarah McCall  
Tetra Tech, Inc  
340 Indiana Street, Suite 500  
Golden, CO 80401

**FEB - 8 2016**  
**TETRA TECH**  
**GOLDEN OFFICE**

Re: Oliver III Wind Energy Center  
Oliver and Mercer Counties, North Dakota

Dear Ms. McCall:

This department has reviewed the information concerning the above-referenced project submitted under date of January 14, 2016, with respect to possible environmental impacts.

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

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.
2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site. Guidelines for minimizing degradation to waterways during construction are attached.
3. Projects disturbing one or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the storm water permit may be obtained from the Department's website or by calling the Division of Water Quality (701.328.5210). Also, cities may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

Ms. Sarah McCall

2.

February 2, 2016

4. Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise effects can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.

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., Chief  
Environmental Health Section

LDG:cc  
Attach.



**Construction and Environmental Disturbance Requirements**

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

**Soils**

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

**Surface Waters**

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

**Fill Material**

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



## **Correspondence with North Dakota State Water Commission**





# North Dakota State Water Commission

900 EAST BOULEVARD AVENUE, DEPT 770 • BISMARCK, NORTH DAKOTA 58505-0850  
701-328-2750 • TDD 701-328-2750 • FAX 701-328-3696 • INTERNET: <http://swc.nd.gov>

February 5, 2016

Sarah McCall  
Tetra Tech, Inc  
350 Indiana Street, STE 500  
Golden, CO 80401

**Received**

**FEB - 8 2016**

**TETRA TECH  
GOLDEN OFFICE**

Dear Ms. McCall:

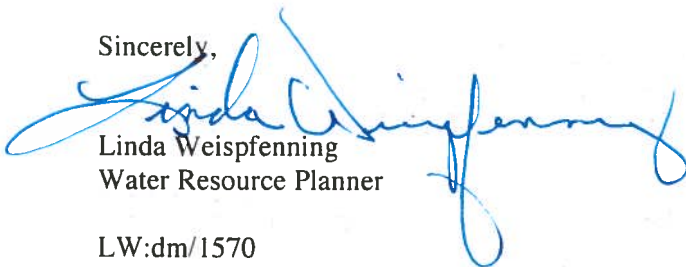
This is in response to your request for review of environmental impacts associated with the Oliver III Wind Energy Center project located in Oliver and Morton Counties, ND. The project will interconnect to the electrical grid via a tap to the existing Minnkota's Center to Mandan 230kV Overhead Transmission Line located in the NE¼ of Section 23, Township 141N, R 83W, Oliver County, ND. The energy center would include portions of the following tracts: Morton County; T 140N, Range 82 W, Section 30; Township 140 N, 83 W, Sections 3-26; Township 140 N, Range 84 W, Sections 1, 2, 11-14; and Oliver County, Township 141N, Range 83W, Sections 25, 26, 32-36. The associated transmission line corridor includes the following tracts: Morton County, Township 140 N, Range 83 W, Sections 3, 10; and Oliver County, Township 141N, Range 83W, Sections 23-25, 36.

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

- There are no floodplains identified and/or mapped where this proposed project is to take place. The project takes place in Zone D. No floodplain permits are necessary from Morton and Oliver County relative to the National Flood Insurance Program.
- Please contact the Southwest Water Authority at 701-225-0241, regarding Southwest Pipeline Project infrastructure that may be located in the project area.
- It is the responsibility of the project sponsor to ensure that local, state and federal agencies are contacted for any required approvals, permits, and easements.
- All waste material associated with the project must be disposed of properly and not placed in identified floodway areas.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 701-328-4967.

Sincerely,



Linda Weispfenning  
Water Resource Planner

LW:dm/1570



## **Copy of Form Letter and List of Agencies Contacted**





January 14, 2016

NAME  
TITLE  
AGENCY  
ADDRESS  
CITY, North Dakota ZIP

**Subject: Information Request for the Proposed Oliver III Wind Energy Center in Oliver and Morton Counties, ND**

Dear NAME:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility for the proposed Oliver III Wind Energy Center (the Project), in accordance with North Dakota Century Code (NDCC) Section 49-22-07. As part of that application, we are conducting an investigation of property in Oliver and Morton counties southeast of the city of Center. This proposed Project would consist of approximately 100 megawatts (MW). The Project area shown in the attached figure is the primary focus of our investigation.

The Project would interconnect to the electrical grid via a tap to the existing Minnkota's Center to Mandan 230kV Overhead Transmission Line located in the NE ¼ of Section 23, Township 141N, R 83W, Oliver County, North Dakota. This site is located approximately 14 miles S/SE of the City of Center, North Dakota. We will also prepare a separate application for a Certificate of Corridor Compatibility and Route Permit for the proposed transmission line.

The wind energy center would include portions of the following tracts:

County	Township	Range	Sections
Morton	140 N	82 W	30
Morton	140 N	83 W	3 – 26
Morton	140 N	84 W	1, 2, 11 – 14
Oliver	141N	83W	25, 26, 32 – 36

The associated transmission line corridor includes the following tracts:

County	Township	Range	Sections
Morton	140 N	83 W	3, 10
Oliver	141N	83W	23 – 25, 36

Per Section 69-06-01-05 of the North Dakota Public Service Commission (PSC)'s administrative rules, we are consulting your agency for assistance in identifying concerns or issues within the boundaries of the tracts listed above that would influence a decision regarding the use of the land, as well as applicable permits that may be required from your office.



January 14, 2016

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This information will be used to help guide Project development in a manner that identifies and avoids impacts to sensitive resources where practicable. We have sent similar query letters to other agencies including, but not limited to, the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by February 12, 2016. Please contact me at (303) 980-3676 if you have any questions. Thank you for your assistance.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "S McCall". The signature is written in a cursive style with a large initial "S" and "McCall" written in a similar script.













Sarah McCall  
Tetra Tech, Inc  
350 Indiana Street, Suite 500  
Golden, CO 80401

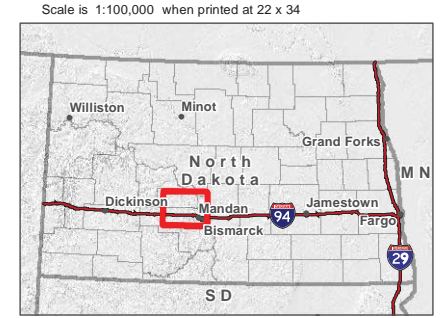
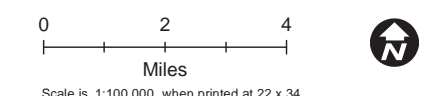
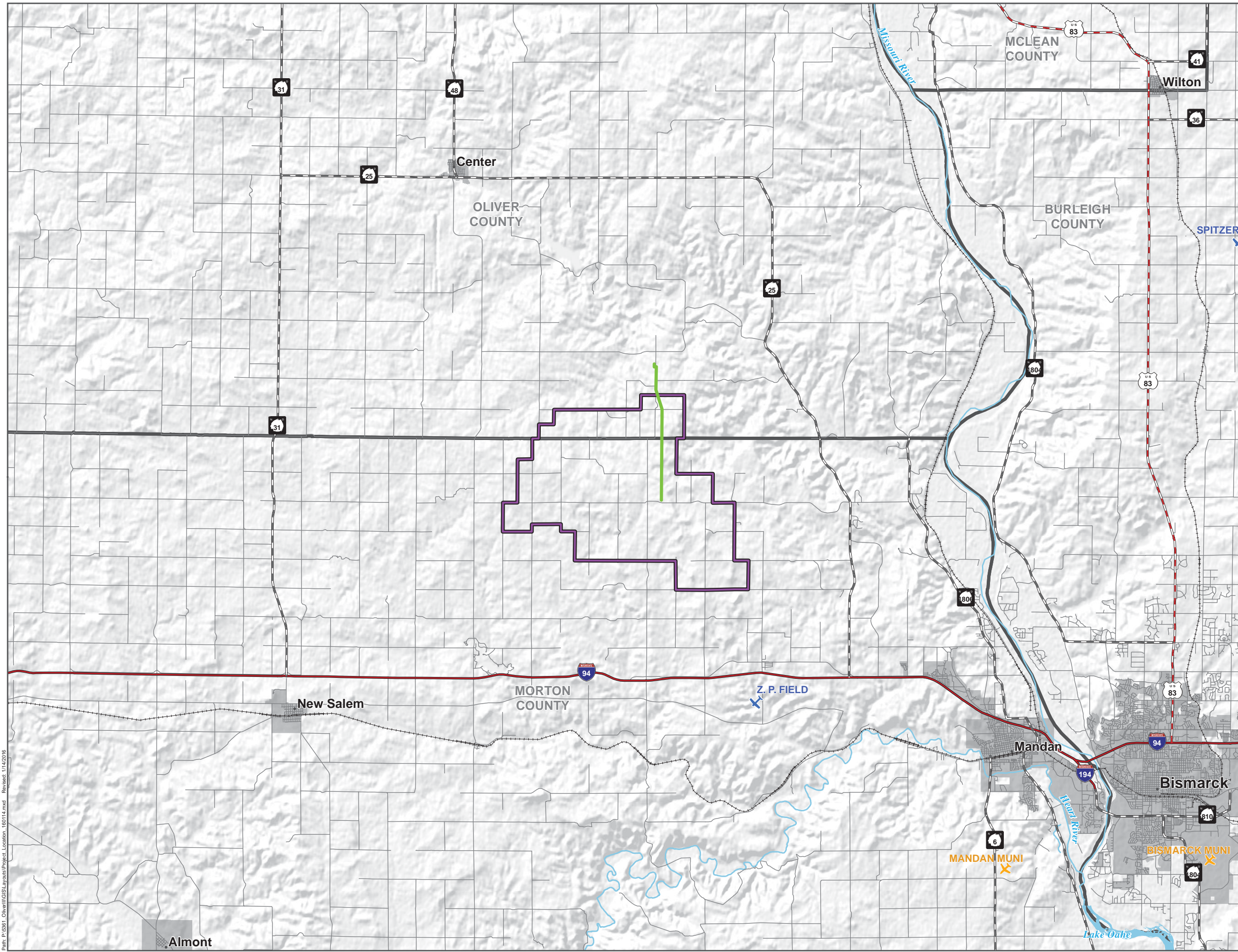
# Oliver III Wind Energy Center

Morton & Oliver Counties, ND

## Project Location

### Legend

-  Proposed Project Area (01/13/2016)
-  Proposed Transmission Line Route (12/09/2015)
-  County Boundary
-  Major River
-  Municipal Boundary
- Transportation**
  -  Interstate Highway
  -  U.S. Highway
  -  State Highway
  -  County Road
  -  Rail
- Airports**
  -  Public Airport
  -  Private Airport



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## Agency List for Oliver III PSC Application Inquiry Letters

Mr. Larry Taborsky  
Director  
North Dakota Aeronautics Commission  
P. O. Box 5020  
Bismarck, North Dakota 58502-5020

Mr. Doug Goehring  
Agriculture Commissioner  
North Dakota Department of Agriculture  
600 East Boulevard Avenue, Department 602  
Bismarck, North Dakota 58505-0020

Dr. Terry Dwelle, M.D., M.P.H.T.M.  
State Health Officer  
North Dakota Department of Health  
600 East Boulevard Avenue  
Bismarck, North Dakota 58505-0200

Mr. Kevin Levi  
District Engineer  
North Dakota Department of Transportation, Bismarck District  
1700 Third Avenue West, Suite 101  
Dickinson, ND 58601-3009

Mr. Lance D. Gaebe  
Commissioner  
North Dakota Department of Trust Lands  
P. O. Box 5523  
Bismarck, North Dakota 58506-5523

Mr. Todd Sando  
State Engineer  
North Dakota State Water Commission  
900 East Boulevard, Dept. 770  
Bismarck, North Dakota 58505-0850

Mr. Edward C. Murphy  
State Geologist  
North Dakota Geological Survey  
600 East Boulevard Avenue  
Bismarck ND 58505-0840

Mr. Scott Davis  
Executive Director  
North Dakota Indian Affairs Commission  
600 East Boulevard Avenue  
1<sup>st</sup> Floor – Judicial Wing, Room #117  
Bismarck, North Dakota 58505

Mr. Mark Zimmerman  
Director  
North Dakota Parks and Recreation Department  
1600 E. Century Ave, Suite 3  
Bismarck, North Dakota 58503

Mr. Ted Becker  
Chair  
Morton County Soil Conservation District  
2540 Overlook Lane  
Mandan, ND 58554

Merlan E. Paaverud, Jr.  
Director  
State Historical Society of North Dakota  
612 East Boulevard Avenue  
Bismarck, ND 58505

Mr. Daniel Cimarosti  
Regulatory Program Manager  
U.S. Army Corps of Engineers Omaha District, North Dakota Regulatory Office  
1513 South 12<sup>th</sup> Street  
Bismarck, ND 58504

Mr. Kevin Shelley  
Acting ND Field Supervisor  
USFWS North Dakota Field Office  
3425 Miriam Avenue  
Bismarck, North Dakota 58501-7926

Mr. Terry Steinwand  
Director  
North Dakota Game and Fish Department  
100 N. Bismarck Expressway  
Bismarck, ND 58501-5095