Baldwin Wind Energy Center
Final Environmental Assessment

Prepared by

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Prepared for

NEXTera ENERGY RESOURCES

July 2010

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1.0 INTRODUCTION

The Baldwin Wind Energy Center (Project or Proposed Action) is a wind generation facility proposed by Baldwin Wind, LLC (Baldwin Wind), a subsidiary of NextEra Energy Resources, LLC (NextEra Energy). The proposed Project would produce up to 50 megawatts (MW) of electricity, averaged annually. The proposed Project is located on 21,218 acres of privately owned land in Burleigh County, North Dakota, approximately four miles southeast of the town of Wilton, North Dakota (**Figure 1**).

The Project would interconnect to the U.S. Department of Energy (DOE) Western Area Power Administration (Western)'s transmission system at Western's Hilken Substation. The Applicant has also applied to the Department of Energy (DOE) for a loan guarantee under Title XVII of the Energy Policy Act of 2005 (EPAct 05), as amended by Section 406 of the American Recovery and Reinvestment Act of 2009, P.L. 111-5 (the "Recovery Act").

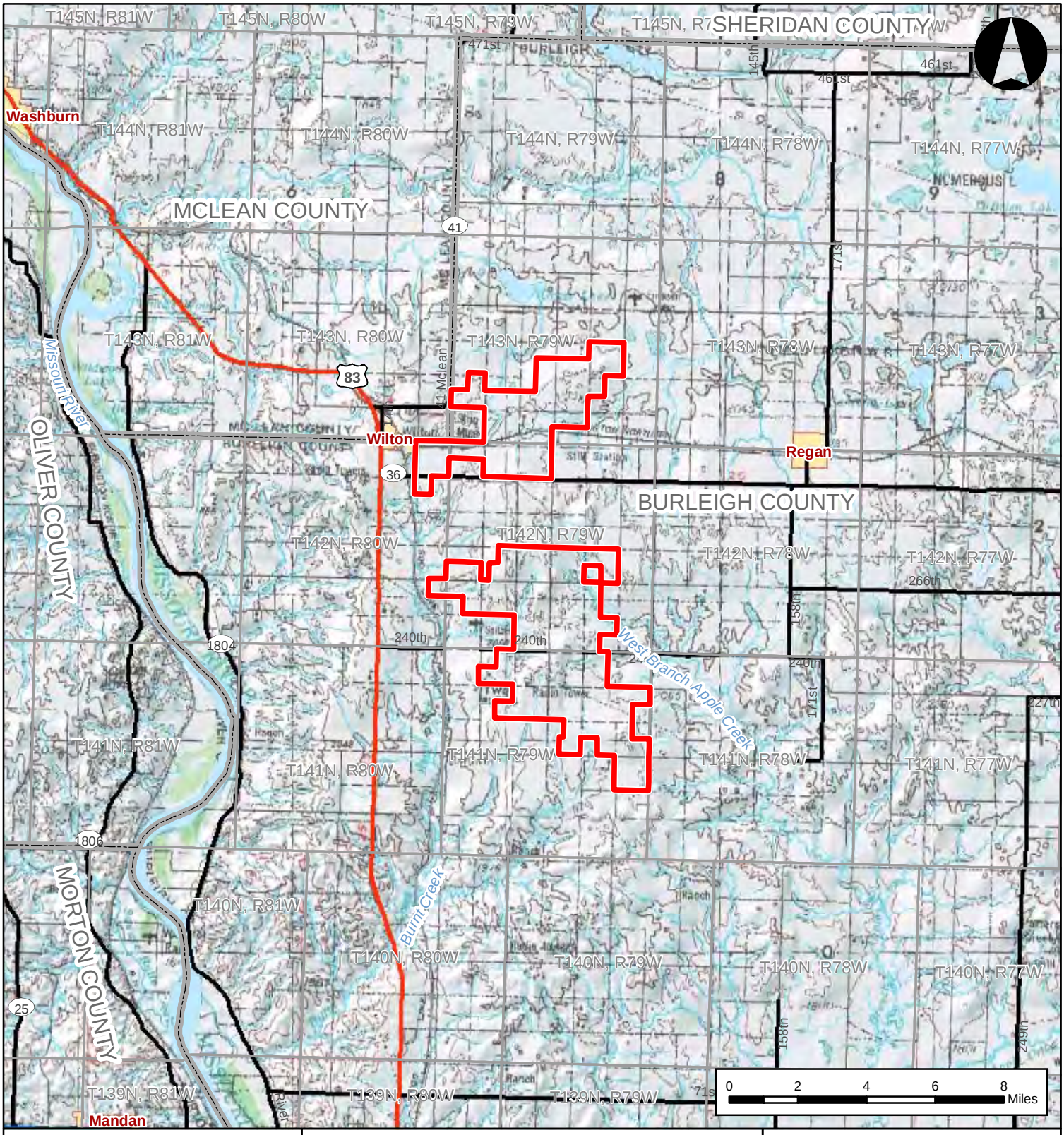
The Project is a federal action under the National Environmental Policy Act (NEPA), Section 102(2) (1969), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), DOE NEPA Implementing Procedures (10 CFR Part 1021), and other applicable regulations. Western prepared this Environmental Assessment (EA) under these regulations to describe the analysis of environmental effects of the proposed Project and alternatives, including the no-action alternative.

1.1 Need for the Proposed Action

Due partly to high heating demand in winter, North Dakota's per capita energy consumption is among the highest in the nation. Nearly three-tenths of North Dakota households use electricity as their primary energy source for home heating. According to the Energy Information Administration (2009), 89 percent of electricity generated in the state of North Dakota is produced from coal-fired power plants. Most of the coal used for power generation is supplied by several large surface mines in the central part of the state. Energy sources such as coal, oil, and natural gas are finite, and their combustion has environmental consequences.

In March 2007, the North Dakota Legislature enacted legislation (H.B. 1506) adopting a voluntary renewable portfolio objective that aims to have ten percent of electricity generated from renewable sources by 2015. While the state leads the nation in potential wind power capacity, at the end of 2008, North Dakota had 714 MW of installed wind energy capacity -- 11th in the nation (Windustry 2010).

According to a March 2009 report prepared by the EmPower ND Commission, one of the state energy goals is to increase installed wind energy capacity to 5,000 MW by 2025 (EmPower ND 2009). North Dakota's goals include the following: general economic development, new wind project investments and construction, new landowner income, and new long-term jobs from broad professional services (such as wind project design, wind resource monitoring, legal and accounting services), from commercial project Operations and Maintenance (O&M), and from the manufacturing of wind turbine components. In support of this effort, Baldwin Wind and NextEra Energy are cooperating with regional utilities to add wind generation to their energy portfolios.



BALDWIN WIND, LLC

Baldwin Wind Energy Center

BURLEIGH COUNTY, ND

Figure 1. Project Location

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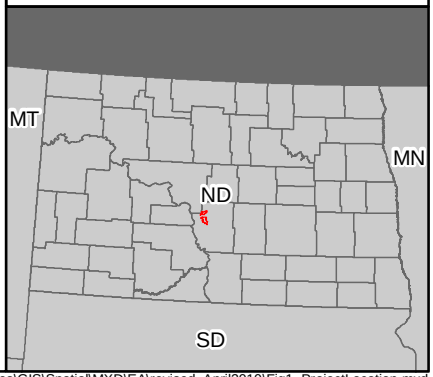
Legend

- Project Area
- Limited Access Highway
- Highway
- Major Road
- Railroad
- Waterbody
- Stream or River
- Populated Place
- Township Boundary
- County Boundary

Source: ESRI 2009.

OVERVIEW MAP



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North Dakota has been identified as having more available wind for development than any other state. In recent years, the Mid-Continent Area Power Pool (MAPP) has consistently reinforced the regional need for increased generating capacity in the coming decade. Cost fluctuations and reliability problems serve to reinforce the need for sufficient capacity, low-cost energy, and diverse generation sources. Independent power producers such as Baldwin Wind and NextEra Energy are widely recognized as essential to meeting regional energy needs, stabilizing energy costs, and enhancing energy reliability. The Project offers North Dakota and the MAPP region the opportunity to add to capacity, to stabilize wholesale power prices, and to provide electricity from a clean, cost-effective renewable energy generation facility.

1.2 Applicants' Underlying Need

Baldwin Wind needs to develop, operate, and maintain the generation infrastructure in order to develop the renewable wind resource.

1.3 Purpose of the Proposed Action

North Dakota has a unique opportunity to begin providing capacity to meet the forecasted deficits with clean, efficient, renewable energy. Once completed, the proposed Project will be a significant source of energy for meeting the region's needs over the next 30 years. The addition of the proposed Project (Proposed Action) will serve to meet the region's increasing energy needs.

1.4 Agency Purpose and Need

Western offers capacity on its transmission system to deliver electricity when such capacity is available, under Western's Open Access Transmission Tariff. Western's purpose is to ensure that existing reliability and service is not degraded. Western provides for transmission and system studies to ensure that system reliability and service to existing customers is not adversely affected. Western is required to ensure protection of transmission system reliability and service to existing customers.

Because the statements of need and purpose affect the extent to which alternatives are considered reasonable, it is important to understand both the agency's purpose and need and that of the Applicant. This EA provides an interdisciplinary analysis to support the decision to be made by Western to provide interconnection of the Proposed Action to the electrical grid. In addition, the DOE must assess whether the Proposed Action would comply with all applicable environmental requirements under NEPA, as well as all other applicable federal laws, including the Endangered Species Act, Migratory Bird Treaty Act, and Bald and Golden Eagle Protection Act.

EPAct 05 established a Federal loan guarantee program for eligible energy projects, and was amended by the Recovery Act to create Section 1705 authorizing a new program for rapid deployment of renewable energy projects and related manufacturing facilities, electric power transmission projects, and leading edge biofuels projects. The primary purposes of the Recovery Act are job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and State and local fiscal stabilization. The Section 1705 Program is designed to address the current economic conditions of the nation, in part,

through renewable energy, transmission and leading edge biofuels projects. Eligible projects must commence construction by September 30, 2011.

On May 12, 2010, the Project Sponsor, NextEra Energy Resources, LLC, submitted an application to the DOE Loan Guarantee Program for a Federal loan guarantee for the Baldwin Wind Energy Center in response to DOE's October 7, 2009 solicitation, "Federal Loan Guarantees for Commercial Technology Renewable Energy Generation Projects under the Financial Institution Partnership Program." For this Solicitation DOE is implementing the application process by directly working with certain qualified financial institutions through a set of procedures established by DOE as its "Financial Institution Partnership Program" ("FIPP"). In general, the FIPP is intended to expedite the loan guarantee process and expand senior credit capacity for the efficient and prudent financing of eligible projects under Section 1705 of Title XVII that use commercial technologies. This objective will be primarily accomplished by additional roles defined for certain financial institutions satisfying applicable qualifications set forth by DOE. Under the FIPP program, proposed borrowers and project sponsors may not apply directly to DOE but must instead work with a financial institution that meets DOE qualification as a Lead Lender.

The purpose and need for action by DOE is to comply with its mandate under EPAct by selecting eligible projects that meet the goals of the Act.

1.5 Authorizing Action

Federal, state, and local agencies have jurisdiction over certain aspects of the Proposed Action. Major federal agencies and their respective permit/authorizing responsibilities with respect to the proposed Project are summarized in **Table 1**.

Table 1.
Permit/Authorizing Responsibilities

Authorizing Action/Statute	Responsible Agency
Interconnection/Transmission Service Agreement	Western
Utility Occupancy Agreement	North Dakota Department of Transportation (NDDOT)
Easement Grants and Road Crossing Permits	NDDOT, Ecklund Township Board
Review and Approval of Weed Control Plan	Burleigh County, Ecklund Township Board
National Environmental Policy Act	Western
National Historic Preservation Act	Western, North Dakota State Historical Preservation Office (NDSHPO)
Native American Graves Protection and Repatriation Act	Western
American Indian Religious Freedom Act	Western
Construction Storm Water Permit	North Dakota Department of Health (NDDoH), North Dakota Division of Water Quality, Storm Water Program
Clean Water Act Compliance	U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service (USFWS)
Safety Plan	North Dakota Occupational Safety and Health Administration
Migratory Bird Treaty Act	USFWS, Western
Bald and Golden Eagle Protection Act	USFWS, Western
Endangered Species Act	USFWS, Western
Tower Lighting	Federal Aviation Administration (FAA)

1.6 Public Participation

Western has consulted with the various federal, state and local agencies (listed in **Section 4.0** of this document) in the development of this analysis. A public scoping meeting was held on October 21, 2009. A summary of the public meeting is included in **Appendix A**. A second public meeting was held on April 7, 2010 after the Project Area expanded; a summary of that meeting is included in **Appendix B**. The written comments received from agencies and the public during the scoping periods are included in **Appendix C**. In addition, Western will consider comments on this EA from agencies, tribes, landowners, and other interested parties.

Western requested that USFWS participate as a cooperating agency in the preparation of this EA, and USFWS agreed to serve in this capacity in a letter dated December 8, 2009 (**Appendix C**).

2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Baldwin Wind proposes to construct, own, and operate the Baldwin Wind Energy Center (Project, or Proposed Action) in Burleigh County, North Dakota. The Project would consist of no more than 64 wind turbines with an output of up to 50 MW, averaged annually.

The site was selected on the basis of a number of factors, including: wind resource, the accessibility to the existing electrical grid; the receptiveness of the local community to wind energy development; and numerous environmental factors and economic considerations. The Project layout is then designed to avoid and minimize impacts at the chosen site. This site is located relatively close to a larger city (Bismarck) and adjacent to existing wind energy facilities, which eliminates the need for a new transmission line and operation and maintenance (O&M) facilities, reduces the amount of new roads required, and reduces total Project foot print and impacts.

This section describes Proposed Action and the No Action Alternative. First, a description of the pre-construction activities that have been and will be completed for the Proposed Action is provided.

2.1 Pre-Construction Activities

Preconstruction activities included site surveys and studies, landowner agreements, engineering design, and layout of proposed Project facilities.

Preconstruction Surveys and Studies

Preconstruction surveys were conducted to ensure the feasibility of the Proposed Action and to avoid, minimize, or mitigate impacts to existing resources. These include:

- Avian Surveys
- Native Prairie Survey
- Wetland Delineation
- Cultural Resources Inventory
- Architectural Survey and Visual Impact Analysis
- Whooping Crane Likelihood of Occurrence Assessment
- Bat Likelihood of Occurrence Assessment
- Shadow Flicker Analysis
- Acoustic Analysis

Landowner Agreements

The Project proponents entered into agreements with landowners in order to secure rights to access their property for surveys, testing, construction, operation, and maintenance of the Project components. These agreements were developed in consideration of landowner concerns, and include compensation for disturbance and loss of farming access during Project construction, operation, and maintenance. Landowner agreements are now secured for the Project.

Project Planning and Design

Project planning considered Project components, equipment, and material sources available for use in construction and operation. The location and design of Project facilities would avoid sensitive resources to the extent practicable.

2.2 Proposed Action

The proposed Project (Proposed Action) is located near the rural communities of Wilton and Baldwin in central North Dakota, approximately 18 miles north of Bismarck, North Dakota (**Figure 2**). The Proposed Action would consist of the following components:

- 64 1.6-MW General Electric (GE) turbines;
- 3 meteorological (met) towers;
- Access roads;
- Underground electrical collection lines; and
- A collection substation and a 240-foot overhead 230-kV tie line.

In addition, one structure and approximately 250 feet of the existing transmission line will be re-routed.

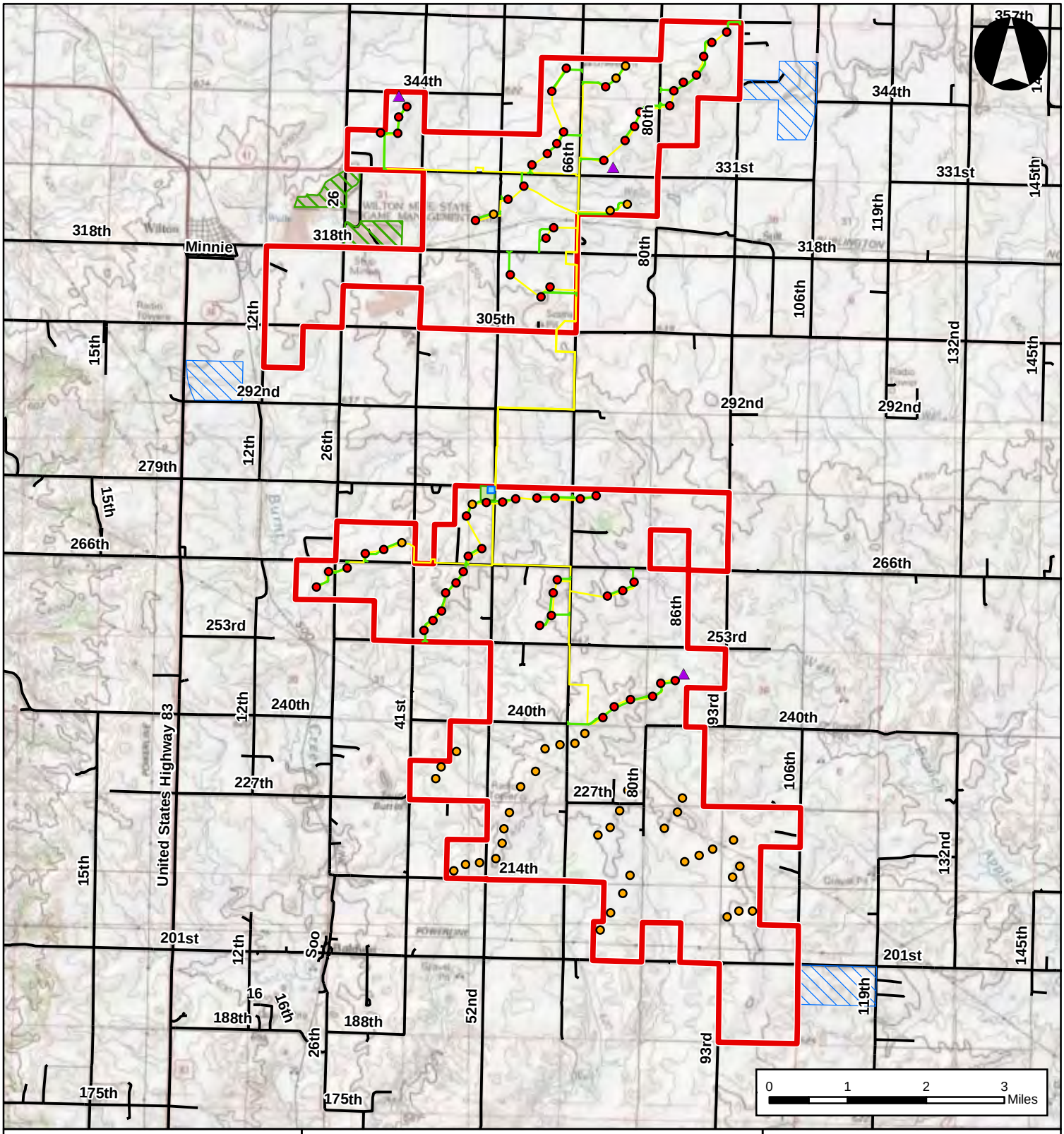
All facilities would be constructed in accordance with the National Electrical Safety Code, U.S. Department of Labor Occupational Safety and Health Standards, and Central's Power System Safety Manual for maximum safety and property protection. The following sections describe these Project components, pre-construction planning, and construction activities associated with each.

2.2.1 Proposed Facilities

The Project will consist of an array of wind turbines and transformers. The turbines will be interconnected by fiber optic communication cables and 34.5-kV power collection cables.

Land will be graded on-site for the turbine pads. Drainage systems, access roads, storage areas, and construction/laydown areas will be installed as necessary to fully accommodate all aspects of Project construction, operation, and maintenance. See **Figure 3** for a typical wind energy center layout.

Electrical system design and interconnection details will be determined as a result of studies and discussions with Western. The Project includes a computer-controlled communications system that permits automatic independent operation and remote supervision, thus allowing the simultaneous control of many wind turbines. Baldwin Wind will be responsible for Project operation and maintenance for the life of the Project and will contract with the most appropriate supplier of O&M services at the time of operation, to assure timely and efficient operations.



BALDWIN WIND, LLC

Baldwin Wind Energy Center

BURLEIGH COUNTY, ND

Environmental Assessment
Figure 2. Project Area

JUNE 2010

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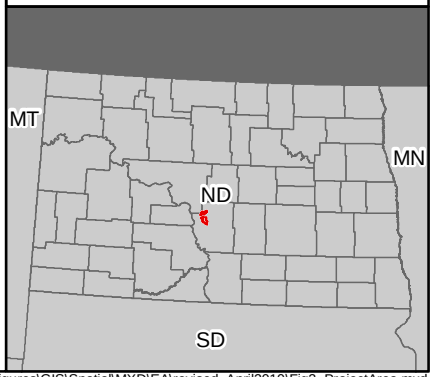
Legend

Wind Turbine

- Planned
- Alternate
- Met Tower
- Collection Line
- Proposed Substation
- Temporary Substation Impact Area
- Access Road
- Project Area
- Road
- USFWS Wetland Easement
- Wilton Mine State Game Management Area

Sources: USFWS 2009; TIGER 2000.

OVERVIEW MAP



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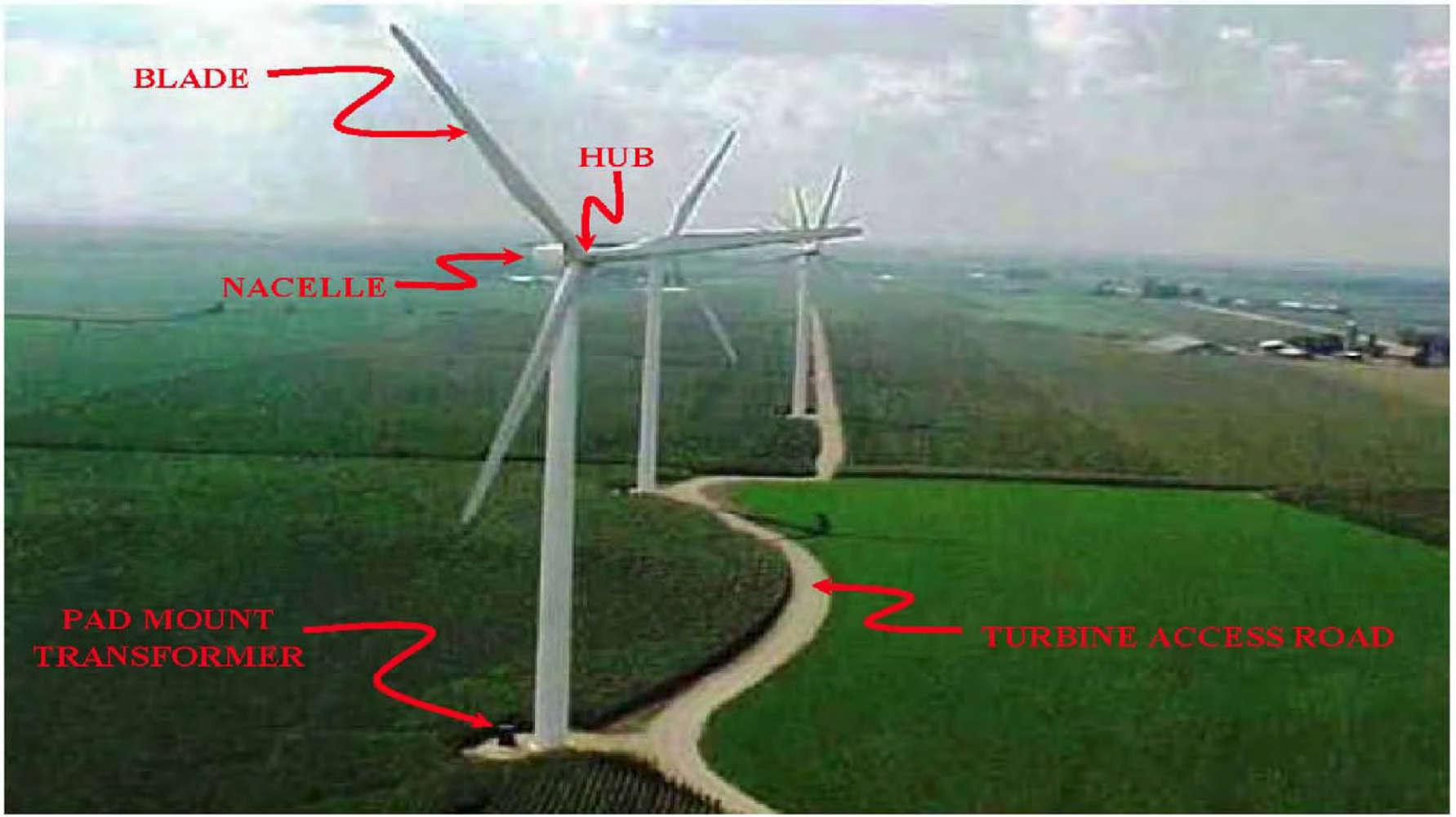


Baldwin Wind, LLC

TETRA TECH EC, INC.

Baldwin Wind Energy Center
BURLEIGH COUNTY, ND

Figure 3. Typical Wind Energy Center Layout

JUNE 2010

Turbines

The Project consists of up to 64 1.6-MW turbines (**Figure 4**). The turbine begins operation in wind speeds of 3.5 meters per section (m/s, or 7.8 mph) and reaches its rated capacity (1.5 MW) at a wind speed of 12.5 m/s (28 mph). The turbine is designed to operate in wind speeds of up to 20 m/s (45 mph). The turbines have active yaw and pitch regulation and asynchronous generators. The turbines use a bedplate drive train design, where all nacelle components are joined on common structures to improve durability.

The turbines have supervisory control and data acquisition (SCADA) communication technology to allow control and monitoring of the wind farm. The SCADA communications system permits automatic, independent operation and remote supervision, thus allowing the simultaneous control of many wind turbines. Operations, maintenance and service for the Project will be structured so as to provide for timely and efficient operations. The computerized data network will provide detailed operating and performance information for each wind turbine. Baldwin Wind will maintain a computer program and database for tracking each wind turbine's operational history.

Met Towers

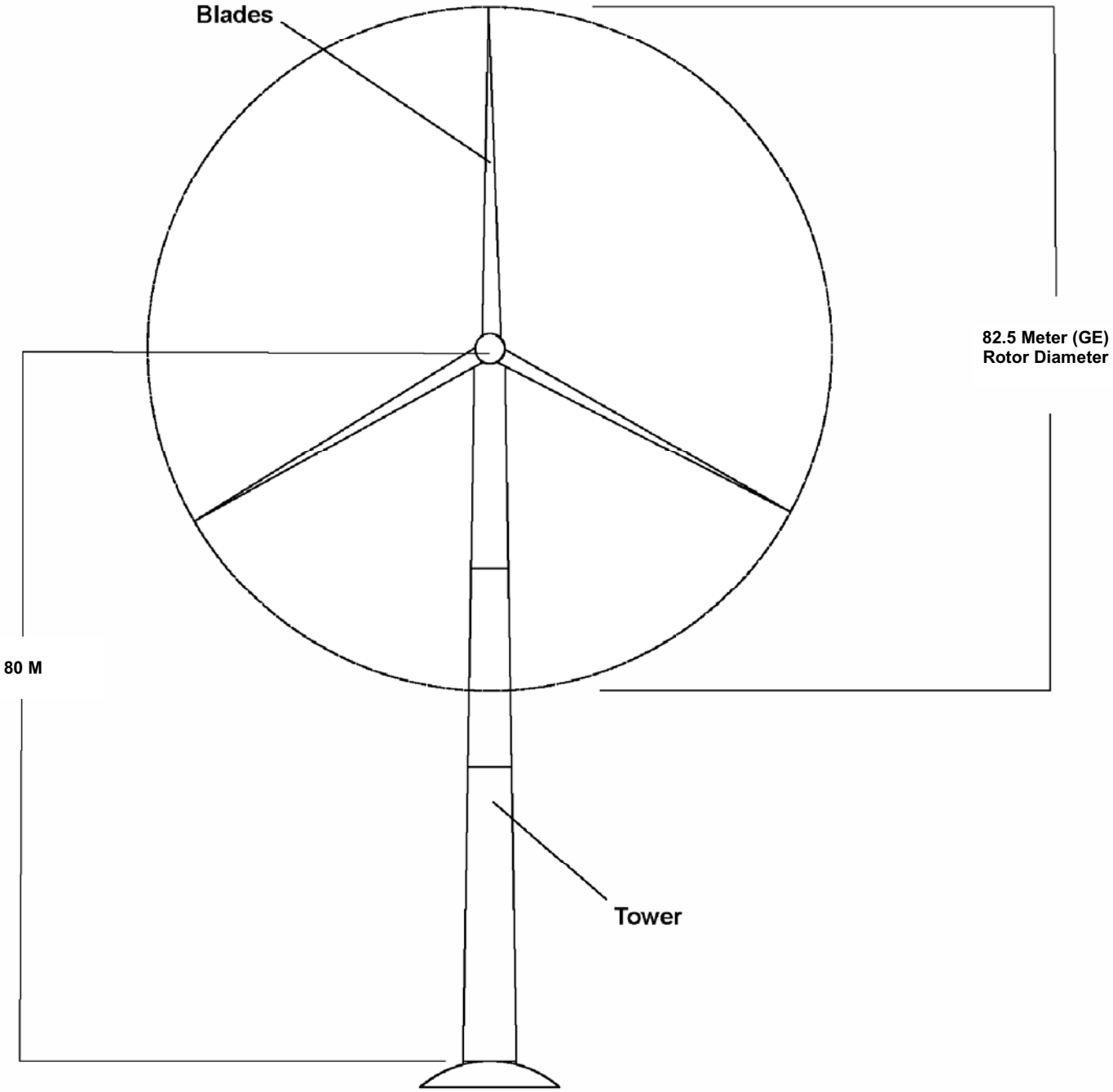
The three proposed met towers are 60 meters (164 feet) high when installed. They are typically 8-10 inches wide and are secured with several guy wires anchored up to 165 feet away. They will be marked with diverter balls (for planes), which also serve as bird diverters. The proposed locations of the towers are shown on **Figure 2**.

Other specifications of the turbines include:

- Rotor blade pitch regulation
- Gearbox with three-stage planetary/helical system
- Double fed three-phase asynchronous generator and an asynchronous 4-pole generator with a wound rotor
- A braking system for each blade (three self contained systems) and a fail-safe disc brake
- Yaw systems are electromechanically driven

Rotor

The rotor consists of three blades mounted to a rotor hub. The hub is attached to the nacelle, which houses the gearbox, generator, brake, cooling system and other electrical and mechanical systems. The preliminary turbine design identifies an 80-m (262-feet) rotor diameter, with a swept area of 5,346 square meters (57,544 square feet) and a rotor speed of 10.1-18.7 revolutions per minute (rpm).



GE Xle 1.6 MW Wind Turbine

TETRA TECH EC, INC.

Baldwin Wind, LLC
Baldwin Wind Energy Center
BURLEIGH COUNTY, ND

Figure 4. Typical Wind Turbine Design
JUNE 2010

Tower

The towers are conical tubular steel with a hub height of up to 80 meters (262 feet). The turbine tower, on which the nacelle is mounted, consists of three to four sections manufactured from certified steel plates. All welds are made by automatically controlled power welding machines and ultrasonically inspected during manufacturing per American National Standards Institute (ANSI) specifications. All surfaces are sandblasted and multi-layer coated for protection against corrosion. Access to the turbine is through a lockable steel door at the base of the tower.

Lightning Protection

Each turbine is equipped with a lightning protection system. The turbine is grounded and shielded to protect against lightning. The grounding system will be installed during foundation work, and must be designed for local soil conditions. The resistance to neutral earth must be in accordance with local utility or code requirements. Lightning receptors are placed in each rotor blade and in the tower. The electrical components are also protected.

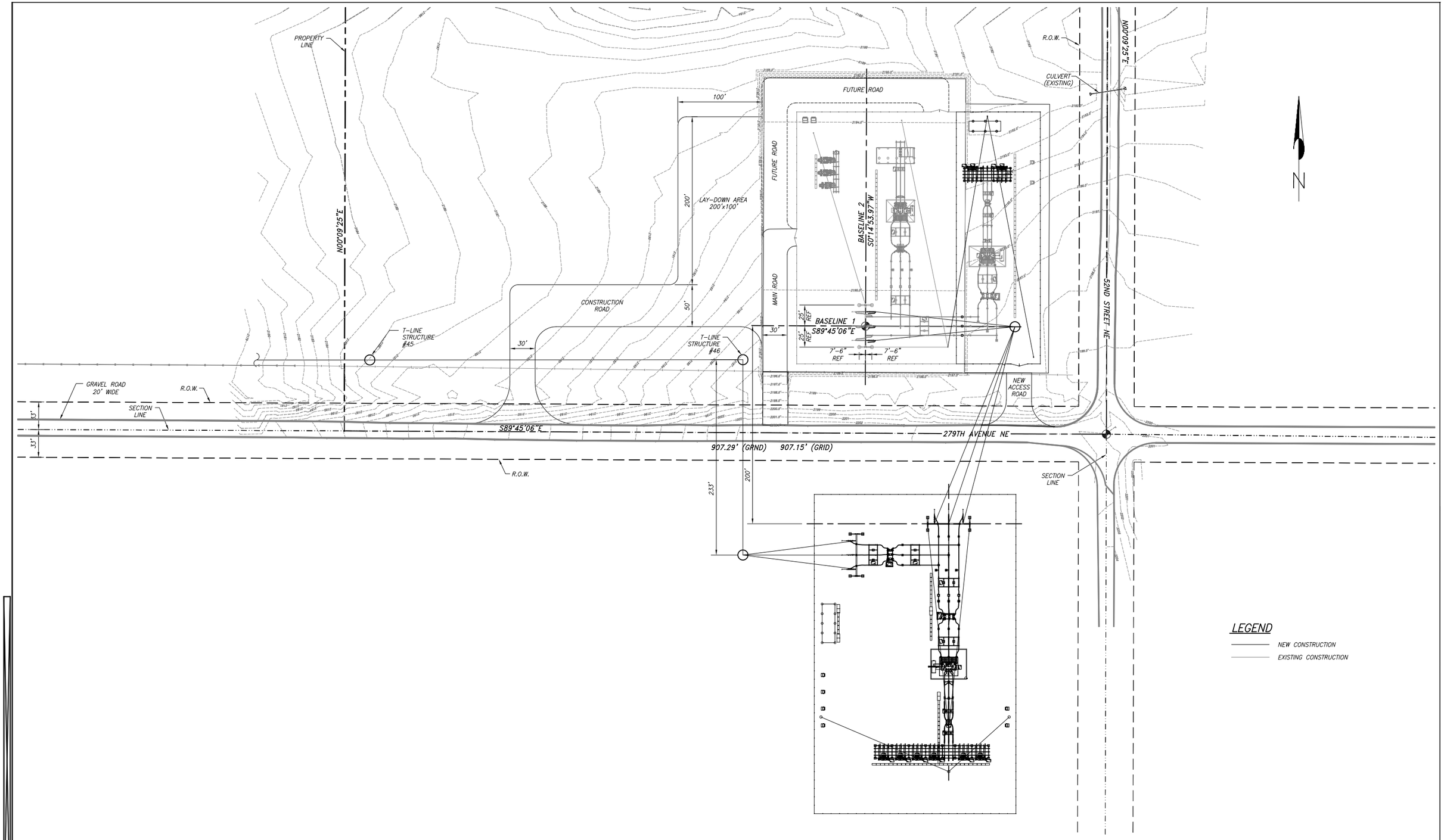
Electrical System

At the base of each turbine, a step-up transformer will be installed to raise the voltage to the power collection line voltage of 34.5 kV. The power from these transformers will be run through an underground collection system consisting of various sized direct-buried cables that are generally located alongside the Project access roads. At the point where the access and public roads meet, the collection system will continue as underground lines. Eventually, all the collection system cables will terminate at an on-site collector substation, which raises the Project voltage to 230 kV and provides the necessary protection and control for interconnection to the transmission grid. The substation will be constructed on Section 20 of Township 142 North, Range 79 West (**Figure 5**).

The switching diagram (**Figure 6**) is a bird's eye view of how the substation will be laid out for both equipment and steel and illustrates the potential land impacts. It shows the associated equipment and their ratings as well as the equipment labels for developing the switching order at time of energization.

The Project substation will be located across the street from the existing Ecklund substation and be connected via approximately 240 feet of 230-kV overhead tie line across 279th Avenue NE. The line will be connected to the pole structures at approximately 40 feet in height. Across the roadway, the minimum distance to the ground would be 26 feet. The power will travel approximately 6 miles along an existing transmission line to Western's Hilken substation. In addition, one structure and approximately 250 feet of the existing transmission line will be re-routed (**Figure 5**).

All utility protection and metering equipment will meet National Electric Safety Code (NESC) standards for parallel operations. The construction manager will ensure that proper interconnection protection is established.



PEAKPOWER ENGINEERING
P.O. Box 340
Golden, Colorado 80402
(303) 462-1100 *phone*
(303) 462-2600 *fax*

NEXTera ENERGY RESOURCES

REV	DESCRIPTION	ENG	DWN	CHK	DATE
A	FOR REVIEW	JDS	JDS	JDS	12/14/09
B	ISSUED FOR PERMITTING	CCH	GLJ	JDS	02/18/10

ENG: J. SCOTT
DWN: J. SCOTT
CHK:
DATE:

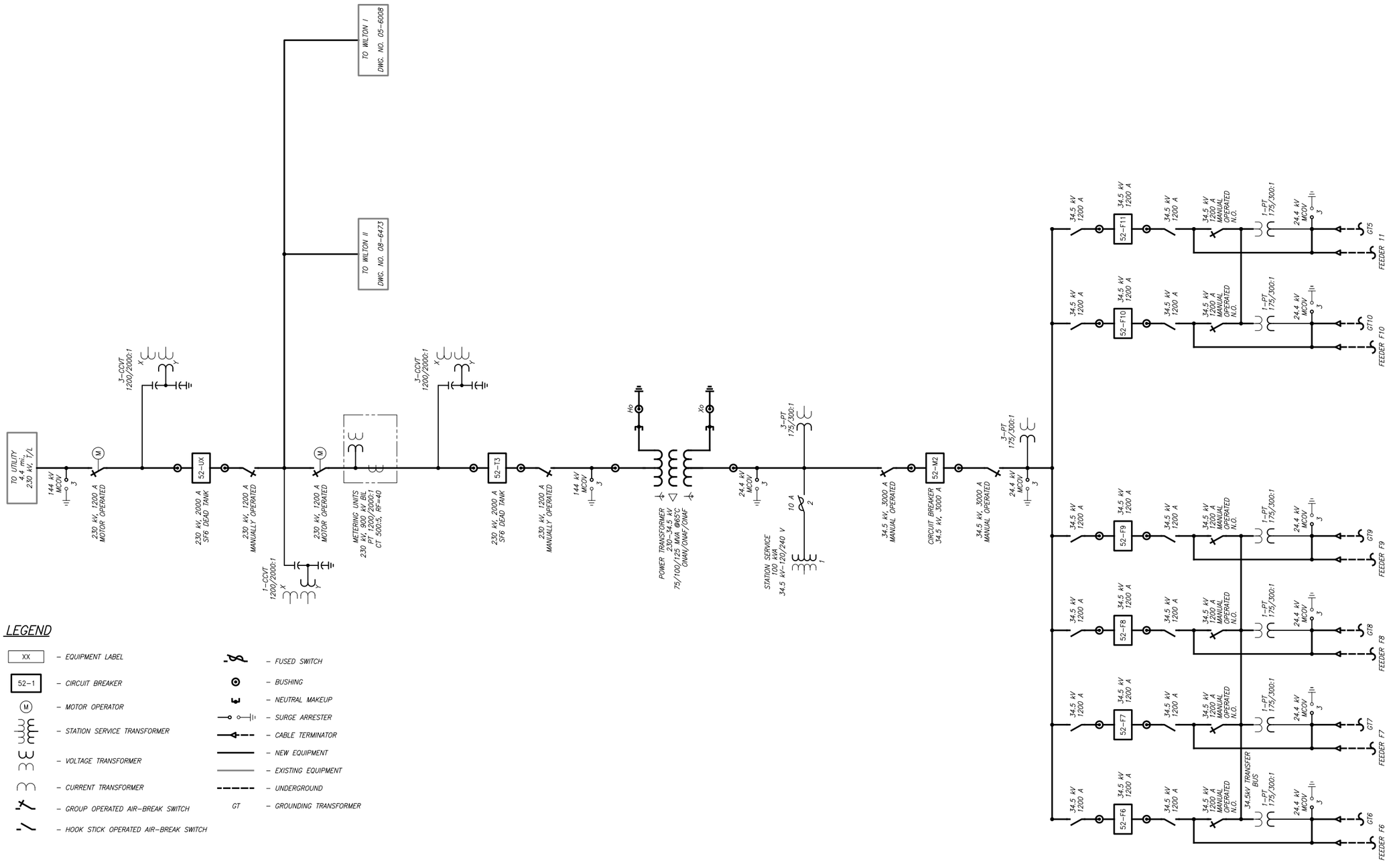
CLIENT/PROJECT: NEXTERA ENERGY RESOURCES
BALDWIN WIND BURLEIGH COUNTY, ND

TITLE: Figure 5. Baldwin Substation Site Plan

SCALE: 1"=50' 0 50' 100' 150'

DRAWING NUMBER: 158080201

REVISION: B



LEGEND

- XX – EQUIPMENT LABEL
- 52-1 – CIRCUIT BREAKER
- (M) – MOTOR OPERATOR
- – STATION SERVICE TRANSFORMER
- – VOLTAGE TRANSFORMER
- – CURRENT TRANSFORMER
- – GROUP OPERATED AIR-BREAK SWITCH
- – HOOK STICK OPERATED AIR-BREAK SWITCH
- – FUSED SWITCH
- – BUSHING
- – NEUTRAL MAKEUP
- – SURGE ARRESTER
- – CABLE TERMINATOR
- – NEW EQUIPMENT
- – EXISTING EQUIPMENT
- – UNDERGROUND
- GT – GROUNDING TRANSFORMER

PEAK POWER ENGINEERING
P.O. Box 340
Golden, Colorado 80402
(303) 462-1100 phone
(303) 462-2600 fax

NEXTera ENERGY RESOURCES

REV	DESCRIPTION	ENG	DWN	CHK	DATE
A	FOR CLIENT REVIEW	WFC	CHM	WFC	12/11/09
B	ISSUED FOR PERMITTING	WAZ	TAZ	WFC	2/18/10

ENG: W. CROWELL
DWN: C. McDANIEL
CHK:
DATE: 12/11/09

CLIENT/PROJECT: NEXTERA ENERGY RESOURCES
BALDWIN WIND BURLEIGH COUNTY, ND

TITLE: Figure 6. Switching Diagram

SCALE: NONE
DRAWING NUMBER: 15808-0101
REVISION: B

Operations and Maintenance Facility

The existing O&M facility for the Wilton Wind Energy Center will be used for this Project. No new O&M Facility will be required for the proposed Baldwin Wind Energy Center.

2.2.2 Construction Procedures

Several activities must be completed prior to the proposed commercial production date. The majority of the activity relates to equipment ordering lead-time, as well as design and construction of the facility. Below is a preliminary schedule of activities necessary to develop the Project. Pre-construction, construction, and post-construction activities for the Project include:

- Ordering of all necessary components including towers, nacelles, blades, foundations, and transformers
- Final turbine micrositing
- Complete survey to microsite locations of structures and roadways
- Soil borings, testing and analysis for proper foundation design and materials
- Complete construction of access roads, to be used for construction and maintenance
- Construction of underground collection lines
- Design and construction of the Project substation and 230-kV overhead tie line to Ecklund Substation
- Installation of tower foundations
- Installation of underground and aboveground cables and transmission lines
- Tower placement and wind turbine setting
- Acceptance testing of facility
- Commencement of commercial production date

Private turbine access roads will be built adjacent to the towers, allowing access to the turbines during and after construction. These roads will be 32 feet wide and will have an aggregate surface as cover, and will be adequate to support the size and weight of maintenance vehicles. The specific turbine placement will determine the amount of private roadway that will be constructed for the Project.

During the construction phase, several types of light, medium and heavy-duty construction vehicles will travel to and from the site, as well as private vehicles used by the construction personnel. Baldwin Wind estimates that there will be approximately 50 additional trips per day in the area during peak construction periods. That volume will occur during the peak time when the majority of the road, foundation and tower assembly are taking place. At the completion of each construction phase this equipment will be removed from the site or reduced in number.

Construction Management

An engineering, procurement, and construction (EPC) contractor will be primarily responsible for the construction management of the Project. The EPC contractor will use the services of local contractors, where possible, to assist in Project construction. The EPC contractor, in coordination with local contractors, will undertake the following activities:

- Securing building, electrical, grading, road, and utility permits
- Perform detailed civil, structural and electrical engineering
- Schedule execution of construction activities
- Complete surveying and geotechnical investigations
- Forecast Project labor requirements and budgeting

The EPC contractor also serves as key contact and interface for subcontractor coordination. The EPC contractor will oversee the installation of communication and power collection lines as well as the substation. The EPC contractor will also oversee the installation of roads, concrete foundations, towers, machines, and blades, as well as the coordination of materials receiving, inventory, and distribution. The Project will be constructed under the direct supervision of an on-site construction manager with the assistance of local contractors. The construction consists of the following tasks:

- Site development, including roads
- Foundation excavation
- Concrete foundations
- All electrical and communications installation
- Tower assembly and machine erection
- System testing

The construction team will be on site to handle materials purchasing, construction, quality control, testing and start-up. The EPC contractor will manage local subcontractors to complete all aspects of construction.

Throughout the construction phase, ongoing coordination will occur between the Project development and the construction teams. The on-site Project construction manager will help to coordinate all aspects of the Project, including ongoing communication with local officials, citizens groups and landowners. Even before the Project becomes fully operational, the O&M staff is integrated into the construction phase of the Project. The construction manager and the O&M staff manager will work together continuously to ensure a smooth transition from construction through wind farm commissioning and, finally, operations.

Foundation Design

The wind turbines' freestanding 80-meter (262-foot) tubular towers will be connected by anchor bolts to an underground concrete foundation. Geotechnical surveys, turbine tower load specifications and cost considerations will dictate final design parameters of the foundations. Foundations for similar sized turbines are generally octagonal, approximately 40 to 60 feet across at the base, and extend seven to 10 feet below grade. The area is cleared with a bulldozer and/or road grader and excavated with a backhoe to prepare for each concrete foundation. Excess excavated material would be used for road construction or otherwise disposed of in accordance with all applicable regulations and permit conditions. An aluminum tube and bolt cage is installed and concrete is placed into the hole. Approximately 150 cubic yards of concrete are needed for each turbine. Concrete spoil would be disposed of off-site by

the contractor. Once cured, the foundation would be complete and ready to receive the turbine tower. The wind turbine foundation design will be prepared by a registered professional engineer licensed to practice in the state of North Dakota.

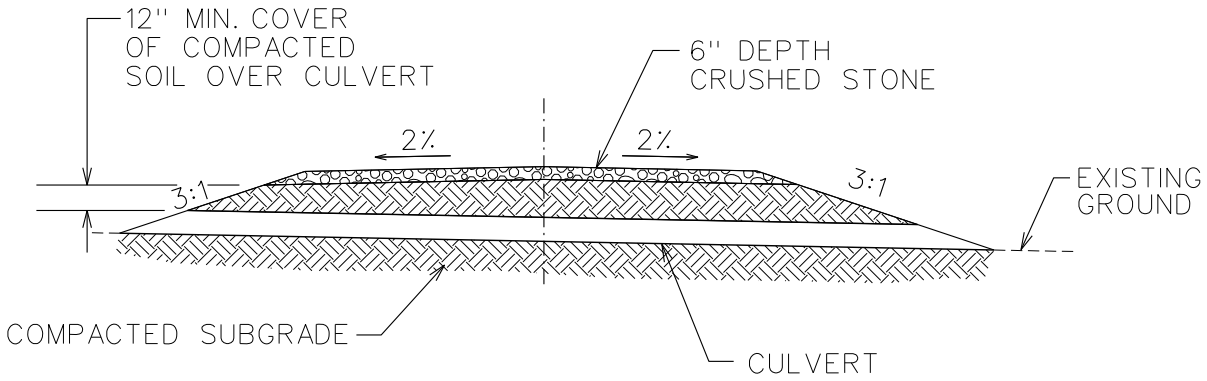
Civil Works

Completion of the Project will require various types of civil works and physical improvements to the land. These civil works may include the following:

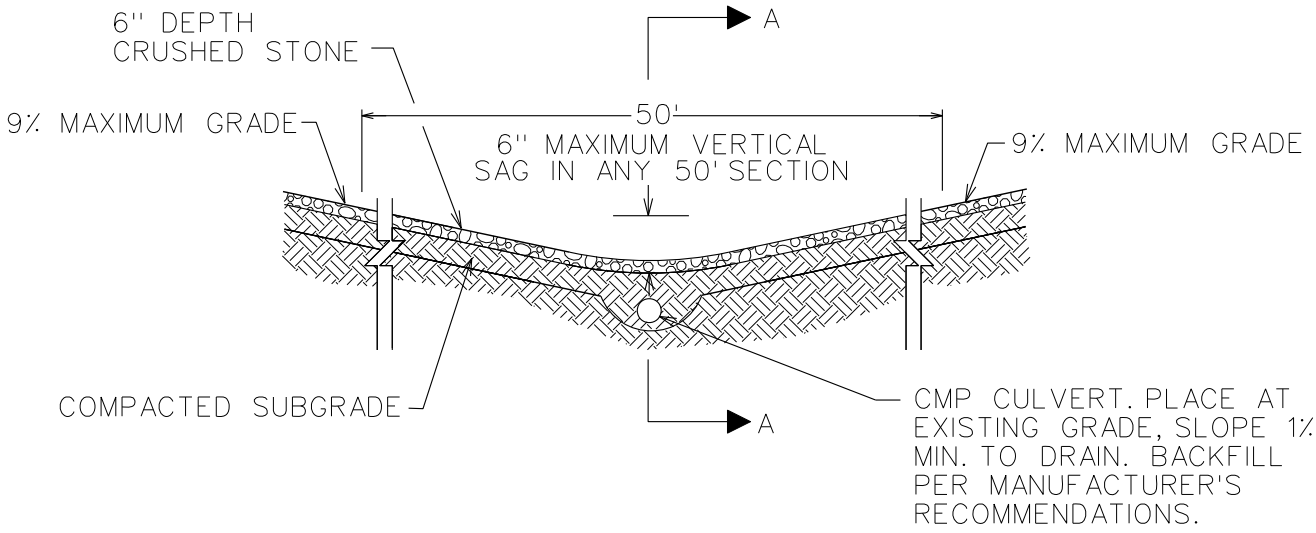
- Improvement of existing public access roads to the Project Area
- Construction of roads adjacent to the wind turbine strings (turbine access roads) to allow construction and continued servicing of the wind turbines
- Clearing and grading for wind turbine tower foundation installations
- Installation of underground cabling for connecting the individual wind turbines
- Installation of an on-site feeder system for connecting wind turbine strings for delivery to the electricity collection/metering location
- Clearing and grading for the O&M building
- Installation of any site fencing and security
- Restoration and re-vegetation of disturbed land when construction activities are completed

Any improvements to existing public access roads will consist of re-grading and filling of the surface to allow access in inclement weather. No asphalt or other paving is anticipated. Turbine access roads will be constructed along turbine strings or arrays. These roads will be sited in consultation with local landowners and completed in accordance with local building requirements where these roads intersect with public roads. They will be located to facilitate both construction (cranes) and continued operation and maintenance. Siting roads in areas with unstable soil will be avoided wherever possible. All roads will include appropriate drainage and culverts while still allowing for the crossing of farm equipment (**Figure 7**). The roads will be 32 feet wide and will be covered with road base designed to allow passage under inclement weather conditions. The roads will consist of graded dirt and will be covered with an aggregate surface. Once construction is completed, the roads will be regraded, filled, and dressed as needed.

Approximately 33 miles of underground collection line would be installed as part of the Project. The collection line cable would consist of a cable buried in trenches at a depth of approximately 50 inches. Trenches are anticipated to be approximately two feet wide and four feet deep, and would generally follow access roads. Where shorter distances can be achieved through more direct paths, shorter routes will be implemented (**Figure 2**).



SECTION A-A



PROFILE

SNYDER & ASSOCIATES
Engineers and Planners

Figure 7. Typical Access Road Water Crossing

WF641-1
TYPICAL BORED CROSSING 6" HDPE

ITEM	QTY	MATID	UNIT	DESCRIPTION
1	160	35979	FT	CONDUIT, POLYETHYLENE, SDR17, 6"

WF642-1
TYPICAL BORED CROSSING 8" HDPE

ITEM	QTY	MATID	UNIT	DESCRIPTION
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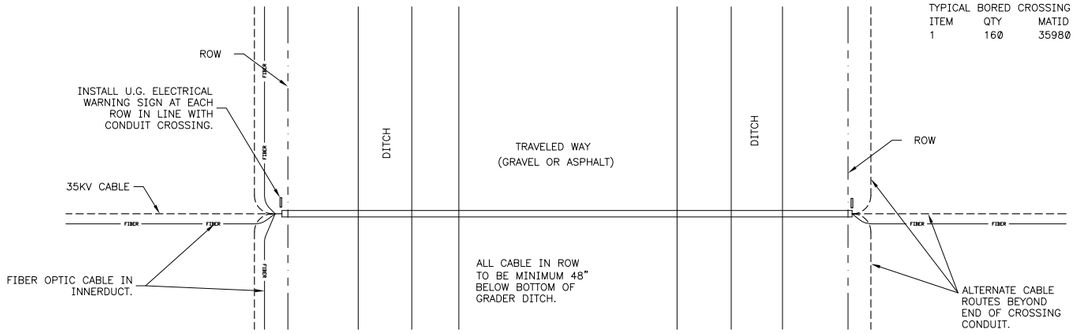
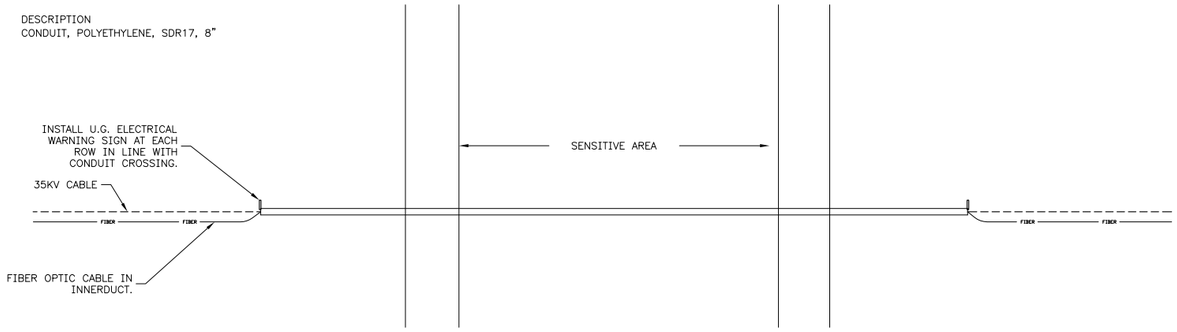
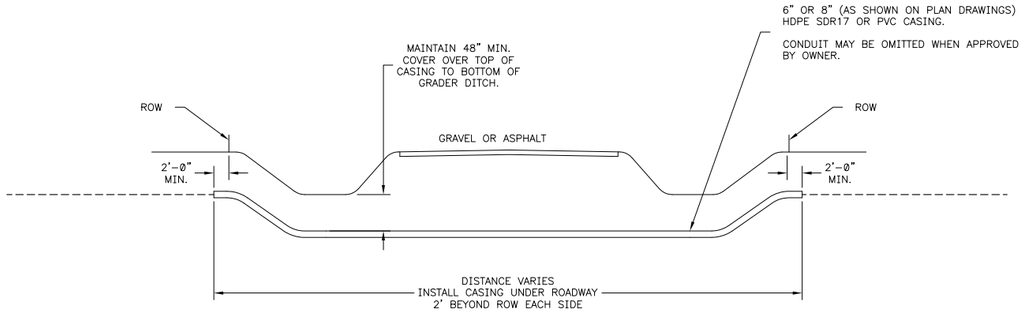
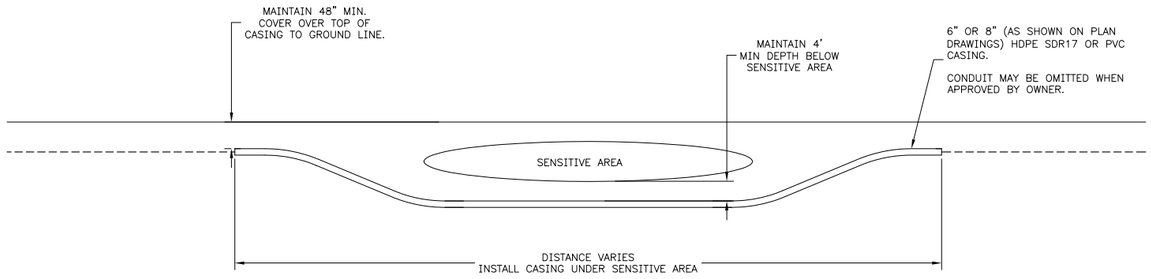


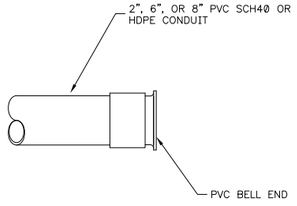




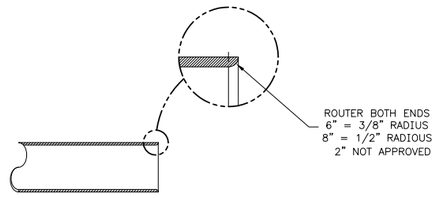
COUNTY ROAD CROSSING DETAIL
N.T.S.
(TYPICAL OF ALL)



SENSITIVE AREA CROSSING DETAIL
N.T.S.
(TYPICAL OF ALL)



ALTERNATE BELL END METHOD OF CABLE PROTECTION
N.T.S.



PREFERRED ROUTERED HDPE END DETAIL
N.T.S.

NOTES:

1. 8" CASING MAXIMUM CAPACITY INCLUDES THE FOLLOWING:
   3-1000 kcmil CABLES (1 CIRCUIT) & 2-FIBER INNERDUCTS.
   3-500 kcmil CABLES (1 CIRCUIT) & 3-FIBER INNERDUCTS.
2. 6" CASING MAXIMUM CAPACITY INCLUDES THE FOLLOWING:
   3-4/0 AWG CABLES (1 CIRCUIT) & 2-FIBER INNERDUCTS.
   1-8-3MC CABLE (1 CIRCUIT) & 1-FIBER INNERDUCT.
3. 2" CASING MAXIMUM CAPACITY INCLUDES THE FOLLOWING:
   1-FIBER INNERDUCT.
4. SEAL ALL CONDUITS WITH EXPANDING FOAM AFTER CABLE INSTALLATION.
5. USE PVC CEMENT TO ATTACH BELL END TO PVC CONDUIT (ALTERNATE METHOD ONLY).
6. USE HDPE-PVC ADHESIVE TO ATTACH BELL END TO HDPE CONDUIT (ALTERNATE METHOD ONLY).

DESCRIPTION	ITEM ID
2" PVC BELL END	35513
6" PVC BELL END	35519
8" PVC BELL END	35524
HDPE ADHESIVE	90252
PVC CEMENT	90253

LEGEND

- FIBER DUCT
- SECTION LINE
- ROAD EDGE
- UNDERGROUND CABLE
- RIGHT OF WAY

P & E ENGINEERING CO.
POWER SYSTEM ANALYSIS AND DESIGN
245 S. 5th
P.O. Box 620
Carlisle, IA 50047
Office: 515-989-3083
FAX: 515-989-3138
peengr@peengr.com

NEXTera ENERGY RESOURCES

REV NO.	DESCRIPTION	ENG	DWN	CHKD	DATE
A	ORIGINAL DESIGN	P&E	DTD	MCR	02/01/10

ENG: P&E
DRAWN: DTD
CHKD: MCR
APPR: ARP
DATE: 02/01/10

CLIENT/PROJECT: NEXTERA ENERGY RESOURCES

TITLE: Figure 8. Typical Collection Line Water Crossing

SCALE: MEASURE ON D-SIZE ONLY N.T.S.
DRAWING NUMBER: E-771
REVISION NUMBER: A

Trenches would be excavated using both a trencher and a backhoe. Disturbance associated with all buried collection lines would be limited to a construction easement corridor (100-foot wide in most areas) associated with each proposed linear disturbance. All trenches would be filled with compacted material and associated disturbances would be reclaimed following burial of electrical cables. Where collection lines would cross wetlands and other sensitive features, horizontal directional drilling (HDD) below the features will be used to avoid any impacts (**Figure 7**).

Commissioning

The Project will be commissioned after completion of the construction phase. The Project will undergo detailed inspection and testing procedures prior to final turbine commissioning. Inspection and testing will occur for each component of the wind turbines, as well as the communication system, meteorological system, obstruction lighting, high voltage collection and feeder system, and the SCADA system.

2.2.3 Project Operation and Maintenance

Baldwin Wind and the appropriate supplier will control, monitor, operate, and maintain the Project by means of a SCADA computer software program. In addition to regularly scheduled on-site visits, the wind farm may be monitored via computer. The operation of the entire wind farm, including discrete settings for individual turbines, is managed by the centralized SCADA system. The Project will be operated and maintained by NextEra Energy Operating Services.

The SCADA system offers access to wind turbine generation or production data, availability, meteorological, and communications data, as well as alarms and communication error information. Performance data and parameters for each machine (generator speed, wind speed, power output, etc.) can also be viewed, and machine status can be changed. There is also a "snapshot" facility that collects frames of operating data to aid in diagnostics and troubleshooting of problems.

The primary functions of the SCADA system are to:

- Monitor wind farm status
- Allow for autonomous turbine operation
- Alert operations personnel to wind farm conditions requiring resolution
- Provide a user/operator interface for controlling and monitoring wind turbines
- Collect meteorological performance data from turbines
- Monitor field communications
- Provide diagnostic capabilities of wind turbine performance for operators and maintenance personnel
- Collect wind turbine and wind farm material and labor resource information
- Provide information archive capabilities
- Provide inventory control capabilities
- Provide information reporting on a regular basis

Maintenance Schedule

Baldwin Wind will remotely monitor the Project on a daily basis. This will be accompanied by a visual inspection by the on-site operating staff. Several daily checks will be made in the first three months of commercial operation to see that the Project is operating within expected parameters.

Once installed, the Project service and maintenance is carefully planned and divided into the following intervals:

- First service inspection
- Semi-annual service inspection
- Annual service inspection
- Two years service inspection
- Five years service inspection

First Service Inspection. The first service inspection will take place one to three months after the turbines have been commissioned. At this inspection, particular attention is paid to tightening all bolts by 100 percent, a full greasing, and filtering of gear oil.

Semi-Annual Service Inspection. Regular service inspections commence six months after the first inspection. The semi-annual inspection consists of lubrication and a safety test of the turbines.

Annual Service Inspection. The annual service inspection consists of a semi-annual inspection plus a full component check. Bolts are checked with a torque wrench. The check covers 10 percent of every bolt assembly. If any bolts are found to be loose, all bolts in that assembly are tightened 100 percent and the event is logged.

Two Years Service Inspection. The two years service inspection consists of the annual inspection, plus checking and tightening of terminal connectors.

Five Years Service Inspection. The five years inspection consists of the annual inspection, an extensive inspection of the wind braking system, checking and testing of oil and grease, balance check, and tightness of terminal connectors.

General Maintenance Duties

O&M field duties include performing all scheduled and unscheduled maintenance, including periodic operational checks and tests, regular preventive maintenance on all turbines, related plant facilities and equipment, safety systems, controls, instruments, and machinery, including:

- Maintenance on the wind turbines and on the mechanical, electrical power, and communications system
- Performance of all routine inspections
- Maintenance of all oil levels and changing oil filters
- Maintenance of the control systems, all Project structures, access roads, drainage systems and other facilities necessary for the operation

- Maintenance of all O&M field maintenance manuals, service bulletins, revisions, and documentation for the Project
- Maintenance of all parts, price lists, and computer software
- Maintenance and operation of Project substation
- Provide all labor, services, consumables, and parts required to perform scheduled and unscheduled maintenance on the wind farm, including repairs and replacement of parts and removal of failed parts
- Cooperate with avian and other wildlife studies as may be required, to include reporting and monitoring
- Manage lubricants, solvents, and other hazardous materials as required by local and/or state regulations
- Maintain appropriate levels of spare parts in order to maintain equipment;
- Order and maintain spare parts inventory
- Provide all necessary equipment including industrial cranes for removal and reinstallation of turbines
- Hire, train, and supervise a work force necessary to meet the general maintenance requirements
- Implement appropriate security methods

2.2.4 Decommissioning

Baldwin Wind has a contractual obligation to the landowners to remove the wind energy facilities, including foundations to a depth of four feet, when the wind easement expires. Baldwin Wind also reserves the right to explore alternatives regarding Project decommissioning at the end of the Project certificate term. Retrofitting the turbines and power system with upgrades based on new technology may allow the wind farm to produce efficiently and successfully for many more years. Based on estimated costs of decommissioning and the salvage value of decommissioned equipment, the salvage value of the wind farm will exceed the cost of decommissioning.

2.2.5 Construction Waste Management and Restoration/Reclamation

Debris associated with construction may include construction materials such as packaging material, crates, reels, and parts wrapping. This debris may also include excess excavated soil and removed vegetation. Materials with salvage value will be removed from the Project Area for reuse. Excavated spoils will be back-filled within the area of permanent disturbance and restored in compliance with applicable guidelines. If necessary, solid waste, including topsoil or other excavated materials not otherwise disposed of, would be temporarily stored within the corridor or within the temporary construction easements, and then transported to appropriate disposal facilities in accordance with federal, state, and local regulations.

Following construction, areas not maintained as permanent facilities would be reclaimed for their prior land use. Reclamation would initially consist of grading to replace the approximate original contour and drainage of disturbed areas. Grading would include removal of any temporary crossing or drainage control structures. Following grading, salvaged topsoil would be

spread and blended with adjacent areas to provide a growth medium for vegetation. Soil that has been compacted by equipment operation would be tilled to alleviate compaction and prepare a seed bed. Where natural regrowth of vegetation is not anticipated, disturbed areas would be reseeded in accordance with landowner agreements or with regionally native species. Trees and shrubs removed during construction operations would be replaced at a 2 to 1 ratio according to the Public Service Commission (PSC)'s Tree and Shrub Mitigation Specifications. Noxious weeds would be controlled in accordance with state regulations.

2.2.6 Environmental Protection Measures

Although Baldwin Wind has minimized environmental impacts to the extent practicable through siting, impacts will be further minimized by implementing the following measures:

- Unless otherwise permitted or approved, Baldwin Wind will avoid all sensitive resources during siting, construction, maintenance, and operations.
- Baldwin Wind will consult with interested tribes to develop additional measures to protect traditional cultural properties (TCP) if any are identified, such as protective easements, in agreement with landowners.
- Crews will use silt fencing, straw bales, and ditch blocks during access road construction and electrical line trenching on sloped ground or at ephemeral drainage crossings within the Project Area to further minimize erosion and related environmental impacts.
- Security lighting for Project facilities and equipment will be down-shielded to keep light within the boundaries of the Project. This would minimize attracting night migrating birds to the substation or turbine locations during inclement weather conditions.
- Introduction of noxious weeds will be mitigated through prompt revegetation with regionally native species or restoration of prior land use. A Clean Vehicle Program will be initiated which will require the inspection and washing of vehicles and construction equipment from outside the Project Area to remove adhered soils and plant debris prior to entry into the Project Area.
- Vehicle speeds of no more than 15 mph will be required to minimize dust and wildlife collisions.
- Roads will be watered during construction to minimize dust.
- Appropriate erosion control measures will be installed and maintained to avoid placement of fill in wetlands near Project facilities.
- Signs will be installed where construction vehicles frequently enter or exit US Highway 83 and State Highway 36. Signs will be installed in consultation with the NDDOT.
- Wetlands will be flagged to ensure avoidance by a minimum of 50 feet.
- An environmental monitor will be assigned to the Project by the EPC contractor during construction.

Specifically regarding potential impacts to potentially occurring federally threatened and endangered species, Baldwin Wind has committed to the following additional avoidance and minimization measures:

- Baldwin Wind will bury all new collection lines from the turbines to the collection substation to avoid collision risk. There will be one approximately 240-foot length of overhead tie line that will connect the Project substation to the existing Ecklund substation across 279th Avenue, and another 250-foot length of existing line that will be re-routed. The lines will be outfitted with bird diverters and the poles with perch deterrents. The development of the Project will not require the construction of any additional transmission lines. As a result, Project construction will not create any addition risk of avian collision or electrocution with overhead transmission lines.
- Baldwin Wind will require contractors and construction personnel to modify or curtail construction activities within two miles of whooping cranes observed onsite during the construction phase of the Project, leaving birds undisturbed until they are no longer observed within one mile of construction activities, in order to minimize disturbance, displacement, and harm of roosting and foraging whooping cranes.
- Baldwin Wind will establish a post-construction monitoring program during spring and fall whooping crane migration seasons (spring: April 1 to May 15; fall: September 10 to October 31) for 3 years post-construction to detect the presence of whooping cranes within the Project Area.
- If a whooping crane is observed, Baldwin Wind will shut down specific turbines located within two miles of the birds, until such time as the birds are no longer observed in the area. The USFWS-North Dakota Field Office and Office of Law Enforcement will be notified immediately if whooping cranes are observed in the area. The turbines will not commence operation again until the USFWS has determined that there is no longer a risk to additional cranes in the area. Baldwin Wind will submit a report to the USFWS-North Dakota Field Office no later than December 31 each year, detailing the results of that year's monitoring program.
- Baldwin Wind will implement protocols that include shutting down all turbines if a dead whooping crane or sandhill crane is found in the Project Area, since the area may be utilized by additional cranes. Baldwin Wind will immediately contact the USFWS-North Dakota Field Office and Office of Law Enforcement to determine the required measures to avoid additional whooping crane mortality before resuming Project operation. If a dead or injured whooping crane is found, Western will request formal Section 7 consultation. Seasonal curtailment may be required until consultation is completed.
- Baldwin Wind has developed a Wildlife Response and Reporting System (WRRS), whereby any dead or injured birds found within Project boundaries by Project employees will be marked and their locations reported immediately to the on-duty Plant Lead/Site Supervisor. The carcass or injured bird will not be moved or removed by any individual who does not have the appropriate permits. The USFWS-North Dakota Field Office and Office of Law Enforcement will be notified immediately if an injured bird or wildlife is found. If an endangered or threatened species is found dead or injured on the site, Baldwin Wind will immediately notify the USFWS of the discovery. Baldwin Wind will submit WRRS bird mortality reports to the USFWS-North Dakota Field Office for the life of the Project.

- In addition to the training provided via the WRRS, Baldwin Wind will provide all construction and maintenance staff with training in crane identification and will provide identification guides to be kept in all vehicles.
- Baldwin Wind has developed an Avian and Bat Protection Plan (ABPP) and an Adaptive Management Plan (AMP) so that information gathered and experience gained from post-construction monitoring informs knowledge of the impacts of the wind farm, and is incorporated into adaptive management of the site, utilizing the Department of Interior's Technical Guide on Adaptive Management (Williams et. al. 2007).
- In conjunction with Texas Christian University and Oxford University, NextEra Energy is in the process of developing a fleet-wide protocol for post-construction mortality monitoring surveys. When this protocol is completed, Baldwin Wind will implement the strategies at the Baldwin Wind Energy Center and will provide a copy to the USFWS-North Dakota Field Office.
- The layout of the Project has been designed so that no permanent impacts to wetland areas will occur. As a result, direct effects on roosting whooping cranes, nesting or foraging interior least terns, or nesting piping plovers will be minimized. Also, avoiding wetland impacts will reduce potential impacts to migratory birds.

2.3 No Action Alternative

Not constructing and operating the Project is the No Action Alternative. Under the No Action Alternative, Western would not approve an interconnection agreement to its transmission system. If this alternative is chosen, the Project would not contribute 50 MW of renewable energy to the state's renewable portfolio. Environmental conditions within the Project Area, as described in **Section 3.0**, would be expected to persist in their existing state.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section describes the existing environment and potential environmental impacts resulting from the construction, operation, and maintenance of the proposed Baldwin Wind Energy Center (Project, or Proposed Action).

All proposed facilities are within the Project Area (**Figure 2**). The Project Area represents the area of impact analysis for the majority of the discussed resources; however, study areas associated with several resources discussed in this section are more resource-specific. These individual study areas were determined through review of potential direct and indirect impacts from the Proposed Action and are defined in the individual resource discussions.

Critical Elements of the Human Environment, as defined and specified in statutes or executive orders, must be considered in an EA. The critical elements that could be impacted by the Proposed Action include:

- Geology and Soil
- Air Resources
- Water Resources
- Vegetation
- Wetlands
- Wildlife, including Threatened and Endangered Species
- Land Use
- Socioeconomics and Environmental Justice
- Visual Resources
- Noise
- Transportation
- Safety and Health Issues
- Cultural Resources
- Native American Religious Concerns

Cumulative impacts to these resources are also discussed at the end of the section.

Preliminary analysis indicated that the Proposed Action would not affect other critical elements of the human environment (as listed below). Justifications for dismissal of these elements from further discussion in this EA are provided in the following paragraphs.

Floodplains – The Project Area is located in FEMA Map Panel ID# 38015C0200C, 38015C0225C, 38015C0425C, 38015C0450C, and 38015C0400C. With the exception of the westernmost portions of the Project Area, the Project is located entirely within FEMA Zone D. This is defined as: "Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk." The westernmost portions (in Ecklund Township T142N, R80W) are located in Zone X. In this case, Zone X means "area of minimal flood hazard, above the 500 year flood elevation" (FEMA 2009).

Paleontology – Investigations of public maps and local geology did not identify any fossil collection sites in the immediate vicinity of the Project Area.

Wild and Scenic Rivers – Review of the pertinent U.S. DOI National Park Service website indicated that there are no federally designated Wild and Scenic Rivers in North Dakota.

Wilderness – The nearest federally designated wilderness area to the proposed Project is the Chase Lake Wilderness Area, a 4,155-acre isolated alkali lake located approximately 65 miles to the east.

Recreation – The Proposed Action would not occur within designated recreation areas. The Proposed Action would not increase public accessibility to any previously inaccessible areas.

An environmental impact is a change in the status of the existing environment as a direct or indirect result of a proposed action or no action alternative. Impacts can be direct or indirect (direct impacts are those that are a result of construction, operation, and/or maintenance, whereas indirect impacts generally occur following construction and may not be directly related to the proposed action); positive (beneficial) or negative (adverse); and permanent or long-lasting (long-term) or temporary (short-term). Short-term impacts are generally associated with the construction phase of the Proposed Action, while long-term impacts remain for the life of the Project and beyond.

For each resource, first the existing conditions are summarized. The potential impacts of the Project are then discussed. Measures that would be implemented to reduce, minimize, or eliminate impacts (mitigation measures) are discussed under each resource. The potential impacts of the No Action Alternative are described at the end of the section.

3.1 Geology and Soils

The following is a discussion of the geology and soils affected by the Proposed Action. Impacts to geology are discussed on a regional scale, while the discussion of impacts to soils is focused on the Project Area. Prime farmland soils and soils of statewide importance are also discussed.

3.1.1 Existing Conditions

South-central North Dakota lies within the Glaciated Missouri Plateau section of the Great Plains physiographic province. The Glaciated Missouri Plateau section is comprised of four physiographic districts, with Burleigh County spanning three: the Missouri River Trench, the Coteau Slope, and the Missouri Coteau. The Project Area is located entirely within the middle district, the Coteau Slope, a glaciated bedrock slope subject to active erosion (Kume and Hansen 1965).

The physiography and surficial geology of south-central North Dakota is primarily a product of repeated glacial advances and retreats during the Wisconsin Glaciation. The topography of the Project Area is undulating with gentle relief, resulting from a moderately thin sheet of glacial till deposits masking the underlying stream-eroded bedrock topography. The Project Area is covered extensively but discontinuously by glacial till of the Quaternary Coleharbor Formation. This unit is typically less than 10 feet in thickness; however, it may be thicker (up to 40 feet) in the northern portion of the Project Area (Kume and Hansen 1965; NDGS 1980). At the northeastern corner of the Project Area, these surficial sediments are underlain by the

Cannonball Formation, a sedimentary bedrock unit comprised of interbedded marine sediments, including sandstones, siltstones, shales, and limestones. The bedrock throughout the remainder of the Project Area has been mapped as the Tertiary Bullion Creek (formerly known as Tongue River) Formation, another sedimentary bedrock unit consisting of interbedded sandstone, siltstone, shale, limestone, and lignite. This formation is mapped at the surface in a band across the central and eastern portions of the Project Area, likely corresponding to areas where glacial till is particularly thin or numerous isolated surface outcrops occur (Kume and Hansen 1965; NDGS 2001). Bedrock is likely exposed most extensively at the eastern extent of the Project Area, along the West Branch of Apple Creek (Kume and Hansen 1965).

The U.S. Department of Agriculture has mapped 42 soil map units within the Project Area (USDA 2009). These soils are primarily well-drained loams and silt loams derived from the underlying glacial deposits and, to a lesser extent, the underlying sandstones and siltstones. Ten soil types comprise approximately 90 percent of the Project Area (**Figure 9**). The most extensive of these are "Williams loam, undulating" (approximately 39 percent of the Project Area), "Williams loam, rolling" (approximately 14 percent), and "Arnegard and Grassna silt loams, level" (approximately 12 percent). **Table 2** provides a summary of the soil map units within the Project Area, including their acreages and percentages of the Project Area.

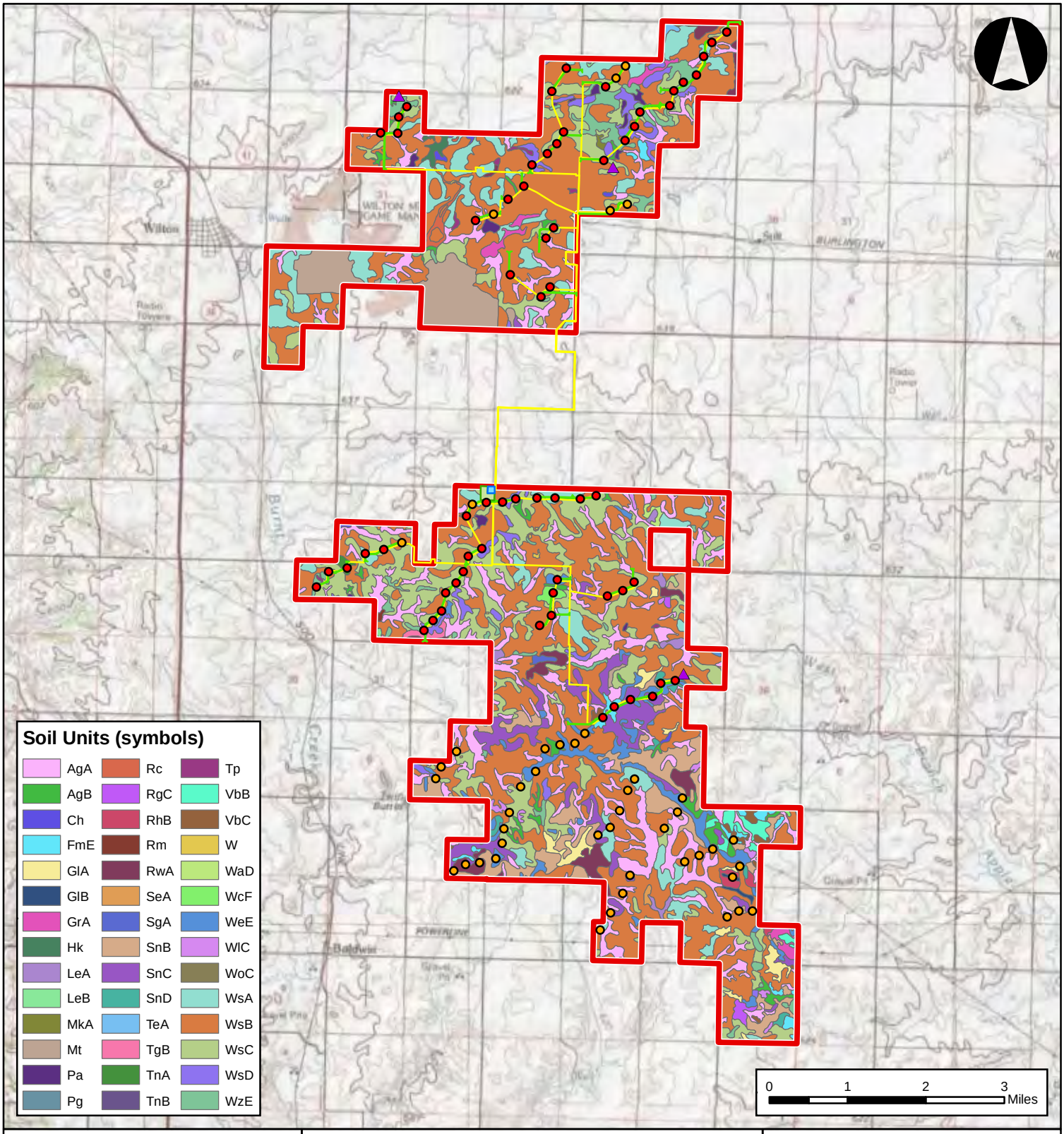
Table 2.
Soil Map Units Within the Project Area

Map Unit Symbol	Map Unit Name	Area (acres)	Percentage of Project Area (21,218 acres)	Farmland Classification
WsB	Williams loam, undulating	8,289	39	N/A
WsC	Williams loam, rolling	3,016	14	N/A
AgA	Arnegard and Grassna silt loams, level	2,474	12	All areas are prime farmland
WsA	Williams loam, nearly level	1,571	7	N/A
SnB	Sen silt loam, 3 to 6 percent slopes	912	4	Farmland of statewide importance
Mt	Dumps and Pits, mine	767	4	N/A
SnC	Sen silt loam, 6 to 9 percent slopes	689	3	Farmland of statewide importance
WeE	Werner-Morton-Sen complex, 9 to 15 percent slopes	522	3	N/A
WzE	Williams-Zahl loams, hilly	492	2	N/A
WsD	Williams loam, hilly	351	2	N/A
RwA	Roseglen-Tansem silt loams, nearly level	349	2	N/A
AgB	Arnegard and Grassna silt loams, gently sloping	257	1	All areas are prime farmland
GlA	Grail silt loam, level	198	Less than 1	All areas are prime farmland
FmE	Flasher-Vebar complex, 9 to 15 percent slopes	152	Less than 1	N/A
GrA	Grail silty clay loam, level	132	Less than 1	All areas are prime farmland
VbB	Vebar fine sandy loam, 3 to 6 percent slopes	117	Less than 1	Farmland of statewide importance
LeA	Lehr loam, nearly level	93	Less than 1	N/A
Pa	Parnell silty clay loam, very poorly	85	Less than 1	N/A

Map Unit Symbol	Map Unit Name	Area (acres)	Percentage of Project Area (21,218 acres)	Farmland Classification
	drained			
SnD	Sen silt loam, 9 to 15 percent slopes	69	Less than 1	N/A
VbC	Vebar fine sandy loam, 6 to 9 percent slopes	69	Less than 1	N/A
Rc	Regan silty clay loam	63	Less than 1	N/A
WlC	Werner-Sen loams, 6 to 9 percent slopes	60	Less than 1	N/A
RhB	Regent-Grail silty clay loams, 3 to 6 percent slopes	52	Less than 1	Farmland of statewide importance
RgC	Regent silty clay loam, 6 to 9 percent slopes	42	Less than 1	Farmland of statewide importance
Ch	Colvin silty clay loam	41	Less than 1	Prime farmland if drained
Hk	Harriet and Regan soils, strongly saline	41	Less than 1	N/A
WcF	Werner complex, 15 to 35 percent slopes	38	Less than 1	N/A
TgB	Tansem-Roseglen silt loams, gently sloping	33	Less than 1	N/A
TnA	Temvik silt loam, nearly level	30	Less than 1	N/A
Tp	Tonka and Parnell soils	30	Less than 1	N/A
WaD	Wabek soils, hilly	26	Less than 1	N/A
MkA	Makoti silty clay loam, level	25	Less than 1	All areas are prime farmland
LeB	Lehr loam, undulating	24	Less than 1	N/A
TeA	Tansem-Lehr loams, nearly level	23	Less than 1	N/A
SeA	Savage silt loam, level	19	Less than 1	N/A
GlB	Grail silt loam, gently sloping	17	Less than 1	All areas are prime farmland
W	Water	16	Less than 1	N/A
SgA	Savage silty clay loam, level	15	Less than 1	N/A
Rm	Rhoades complex	9	Less than 1	N/A
WoC	Williams very stony loam, rolling	5	Less than 1	N/A
TnB	Temvik silt loam, undulating	4	Less than 1	N/A
Pg	Pits, gravel and sand	2	Less than 1	N/A

Source: USDA 2009.

Prime farmland soils are defined in the USDA-NRCS Title 430 National Soil Survey Handbook, issued November 1996, as follows: “Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses. It has the soil quality, growing season, and moisture supply needed to produce economically sustained high yields of crops when treated and managed according to acceptable farming methods, including water management” (USDA 1996).



BALDWIN WIND, LLC

Baldwin Wind Energy Center

BURLEIGH COUNTY, ND

Environmental Assessment
Figure 9. Soils

JUNE 2010

TETRA TECH EC, INC.

Legend

Wind Turbine

- Planned
- Alternate
- Met Tower

Collection Line

Proposed Substation

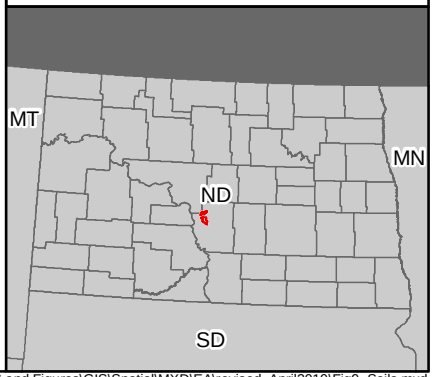
Temporary Substation Impact Area

Access Road

Project Area

Source: USDA 2009.

OVERVIEW MAP



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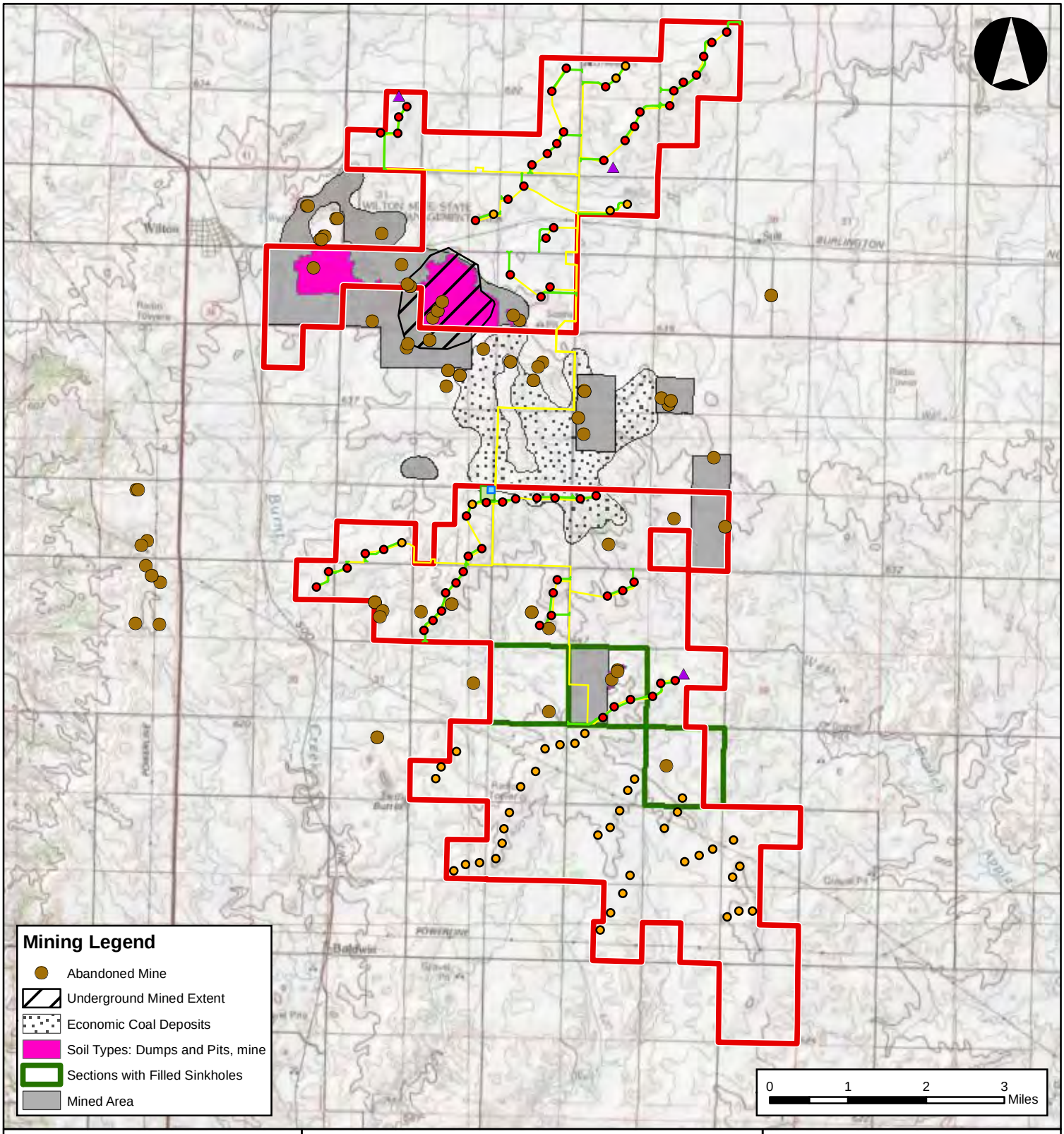
The majority of the soils within the Project Area (77 percent) are neither prime farmland nor farmland of statewide importance. Approximately 3,103 acres (15 percent) of the Project Area is classified as prime farmland; another 41 acres (0.2 percent) is considered prime farmland if drained, and 1,811 acres (9 percent) is considered soil of statewide importance. Approximately one percent of the Project Area is covered by soils classified as "all hydric"; the remaining area is split between partially hydric soils (i.e., soils containing hydric inclusions) and non-hydric soils (65 percent and 34 percent, respectively). All of the soils in the Project Area (with the exception of areas mapped as "Water" and "Dumps and Pits, mine") have low to moderate susceptibility to erosion by water (i.e. K-factors from 0.1 to 0.4). Most of the soils (93 percent) also have low to moderate susceptibility to wind erosion (i.e., USDA Wind Erosion Groups 6 or greater) (USDA 2009).

The most important mineral resource in Burleigh County is sand and gravel. Burleigh County was historically a major producer of sand and gravel, ranking sixth in North Dakota in 1962 (Kume and Hansen 1965). North Dakota Geological Survey (NDGS) maps, U.S. Geological Survey (USGS) topographic maps, and USDA soils data all indicate the presence of a small, sand and gravel pit that was historically active at the northeastern edge of the Project Area (Kume and Hansen 1965; ESRI 2009; USDA 2009). The current status of this historic operation is unknown; however, USGS data dated 2003 does not identify it as an active operation monitored by the USGS Minerals Information Team (USGS 2005). Other surficial materials with potential economic uses in construction are also present in the county, including scoria (vesicular volcanic rock), boulders, and clay; however, none have been extracted commercially. No oil and gas production occurs in Burleigh County (Kume and Hansen 1965; DMR 2009).

Lignite (coal) from the Bullion Creek Formation is the other major mineral resource in Burleigh County (Kume and Hansen 1965). The NDGS has mapped economically viable coal deposits within the gap between the northern and southern portions of the Project Area, in T142N, R79W, Sections 4, 8 to 11, 14 to 17, and 20 to 22 (Murphy pers. comm. 2009; Murphy 2008a; Murphy 2008b). Although there are no active mines in the Project Area (Deutsch pers. comm. 2009; Johnson pers. comm. 2010), lignite was historically mined throughout the Project Area (**Figure 10**).

The PSC Reclamation and Abandoned Mine Land (AML) Division has identified a total of 32 abandoned surface and underground mines within 10 different sections in the Project Area (Johnson pers. comm. 2010). The NDGS has also delineated the approximate extent of historically mined coal areas. Within the northern portion of the Project Area, mined areas are located in T142N, R79W, Sections 5 and 6 and T142N, R80W, Section 1. Within the southern portion of the Project Area, mined areas are located within T142N, R79W, Sections 23 and 34 (Murphy pers. comm. 2009; Murphy 2008a; Murphy 2008b; Murphy 2008c). The AML has also identified the extent of a former underground mine in the northern portion of the Project Area, primarily within T142N, R79W, Section 5, but also extending into T142N, R79W, Section 6 and T143N, R79W, Section 32 (Johnson pers. comm. 2010). USDA soils data includes units identified as "Dumps and Pits, mine" that correspond to the mined areas identified by the NDGS and AML (USDA 2009).



BALDWIN WIND, LLC

Baldwin Wind Energy Center

BURLEIGH COUNTY, ND

Environmental Assessment
Figure 10. Coal Mining

JUNE 2010

TETRA TECH EC, INC.

Legend

Wind Turbine
- Planned
- Alternate
- Met Tower

Collection Line

Proposed Substation

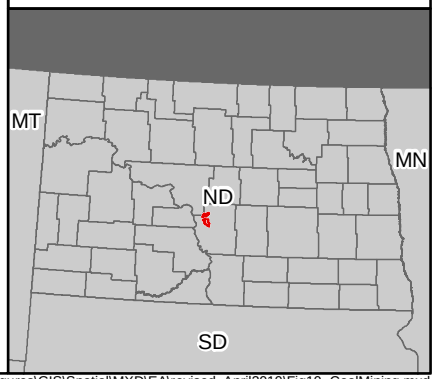
Temporary Substation Impact Area

Access Road

Project Area

Sources: Murphy 2008a; Murphy 2008b; Murphy 2008c; USDA 2009; Deutsch pers. comm. 2009; Murphy pers. comm. 2009; Johnson pers. comm. 2010.

OVERVIEW MAP



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Due to the previous underground mining operations, sinkholes are a potential geologic hazard within the Project Area. The PSC Reclamation and Abandoned Mine Land (AML) Division hired contractors to fill underground mine sinkholes in portions of T142N, R29W, Sections 33 and 34 and T141N, R79W, Section 2 (located in the east-central portion of the Project Area), where no mine maps were available (Deutsch pers. comm. 2009).

According to the NDGS, North Dakota is located in an area of very low earthquake probability. There are no known active tectonic features in south-central North Dakota and the deep basement formations underlying North Dakota are expected to be geologically stable (Bluemle 1991). This information is supported by USGS seismic hazard maps, which show that the Project Area is located in an area with very low seismic risk (USGS 2008). Related geologic hazards, such as soil liquefaction, are therefore also unlikely.

3.1.2 Potential Impacts of the Proposed Project

A significant impact to geology and soils would occur if: 1) erosion results in irreversible impacts to other resources, or 2) there is a loss of mineral resources that are not available elsewhere. Impacts to soils within the Project Area will consist primarily of the removal of areas from agricultural production by occupancy of Project components, including turbines, roads, collection lines, and a substation. In isolated cases, grading may be required for roadway construction. Estimated impacts include up to 325 acres of permanent disturbance due to turbine placement, access road construction, and a collection substation. Approximately 9 acres of prime farmland soils and 9 acres of soils of statewide importance would be permanently impacted by the Project. Based on the turbine layout dated May 5, 2010, 8 turbines (but none of the met towers) would be placed on prime farmland soils. Burleigh County has a total of 66,688 acres of prime farmland soils and 58,235 acres of soils of statewide importance, so permanent impacts from the Project to these soils are not significant. An additional 1,142 acres would be temporarily disturbed during construction, for a total of 1,467 acres impacted.

Because of the gentle relief in the Project Area and the deliberate siting of facilities on level terrain, the potential for soil loss due to erosion would be low. Impacts to hydric soils, such as compaction, are expected to be minimal due to micrositing to avoid wetlands, which are commonly associated with hydric soils.

The Proposed Action includes restoration of disturbed areas to pre-construction conditions. Soil erosion, compaction, and other related disturbance would be short-term, and would be minimized by implementing environmental protection measures. With the proper implementation of environmental protection measures intended to prevent, minimize, and/or reclaim soil erosion, compaction, and spill effects, no unmitigated loss of highly productive soil would result from implementation of the Proposed Action.

Impacts of the proposed Project to available mineral resources are likely to be highly limited. No sand, gravel, or coal resources are actively mined in the Project Area, and economic deposits of the latter are constrained to the northernmost extent of the Project Area. Subsidence hazards related to the potential presence of abandoned underground coal mines will be mitigated by thorough field studies and geotechnical analyses and subsequent micrositing. Consequently, geologic hazards are unlikely to impact the Project. Impacts to geology and soils are therefore not anticipated to be significant.

3.2 Air Resources

The U.S. Environmental Protection Agency (EPA) and the North Dakota Department of Health (NDDoH) regulate air quality in North Dakota through implementation of the Federal Clean Air Act (CAA) (42 U.S.C. §§ 7401-7671q). The CAA is a federal air quality law, which is intended to protect human health and the environment by reducing emissions of specified pollutants at their source. The CAA outlines three types of airshed classification areas: Class I, II, and III. Class I areas include wilderness areas designated as of August 7, 1977 that are 5,000 acres or greater in size, and also include all National Parks over 6,000 acres. These areas have the most stringent degree of protection from current and future air quality degradation (EPA 2009).

The CAA requires the adoption of National Ambient Air Quality Standards (NAAQS) to protect the public health and welfare from the effects of air pollution. The CAA defines NAAQS as levels of pollutant above which detrimental effects on human health and welfare could occur. Standards are provided for sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3) particulate matter less than 10 microns (PM_{10}), particulate matter less than 2.5 microns ($PM_{2.5}$), and lead (Pb), which are known as the criteria pollutants. The EPA has identified PM_{10} particle sizes as the standard for evaluating emissions and its effect on human health. PM_{10} particles are those particles in smoke less than 10 microns in size. These particles are too small to be filtered out by the human respiratory system. These small particulates can cause respiratory problems, especially to smoke sensitive portions of the population.

A state or region is given the status of “attainment” if the NAAQS thresholds have not been exceeded for any criteria pollutant, or “nonattainment” for a specific pollutant if the NAAQS thresholds have been exceeded for that pollutant. An area designated as nonattainment may request redesignation if it can be shown that the area has not exceeded the NAAQS for a period of three years. Redesignation requires the appropriate agency with jurisdiction over the area to prepare a maintenance plan and demonstrate compliance with NAAQS for 10 years (EPA 2009).

3.2.1 Existing Conditions

The entire state of North Dakota is in attainment of all state and federal air quality standards (NDDoH 2008). Within the Project Area, minimal effects to air quality are likely to occur due to existing emission sources such as vehicles, trains, and agricultural equipment. Although relatively high concentrations of total suspended particulates (dust) likely occur in springtime from farming operations and high wind, these are not likely to exceed NAAQS.

According to the U.S. Energy Information Administration (EIA 2010), nearly all of the electricity produced in North Dakota is produced by coal-fired power plants. Coal-fired power plants are major sources of air pollution, producing 59 percent of the total SO_2 pollution and 18 percent of the total nitrogen oxides (NO_x) pollution in the U.S. every year (EPA 2003). They are also the largest contributor of toxic mercury pollution (EPA 2000) and hazardous air toxics (Clean Air Task Force 2002), and release about 50 percent of the nation’s particle pollution.

Power plants also release over 40 percent of total U.S. carbon dioxide (CO_2) emissions, a prime contributor to global warming (EPA 2000). Coal-fired power plants have the highest output rate of CO_2 per unit of electricity among all fossil fuels (EPA 2000). In its Fourth Assessment Report, the Intergovernmental Panel on Climate Change (IPCC) stated that warming of Earth’s climate

system is unequivocal, and that warming is very likely due to anthropogenic greenhouse gas concentrations (IPCC 2007). Global warming threatens human populations and the world's ecosystems with worsening heat waves, floods, drought, extreme weather, and by spreading infectious diseases (IPCC 2007). Global warming problems continue to grow as more greenhouse gases are emitted into the atmosphere.

3.2.2 Potential Impacts of the Proposed Project

A significant impact to air resources would result if federal or state air quality standards were exceeded during construction, maintenance, or operation of the Proposed Action. Vehicle movement during construction activities associated with the Proposed Action may temporarily affect air quality in the Project Area. Temporary emissions would include NOx, hydrocarbons, CO, and SO_2 from vehicles, equipment, and machinery. These impacts would be short-term, and are not expected to cause an exceedance of state or federal air quality standards.

Air quality effects caused by dust would be short-term, limited to the time of construction, and would not exceed the aforementioned NAAQS particulate standards. The NDDoH Air Quality Program does not require a permit for the Project. The limited duration of construction, along with implementation of the environmental protection measures presented in **Section 2.2.5**, is expected to mitigate air quality effects so that federal and state standards would not be exceeded and there would not be significant impacts from the Proposed Action. Complaints regarding fugitive dust emissions would be addressed in an efficient and effective manner.

The operation of the Project will have a positive impact on air quality by producing approximately 197,000 MWh of emission-free electricity annually. The power supplied by the Project will generally displace power provided by power plants in the region such as local coal-fired plants, although the amount of pollution displaced by the Project's output will vary by time of day and season and with the mix of fossil-fueled generation. Based on the EPA's Emissions and Generation Resource Integrated Database (EPA 2008), average output emission rates for power generators in the subregion that includes North Dakota are equal to the following: 1,821.84 pounds (lbs)/MWh of CO_2; 28.00 lbs/GWh of methane; and 30.71 lbs/GWh of nitrous oxide (N_2O). Using these figures and assuming an annual average generation of 50 MW and a capacity factor of 45 percent, the Project will annually displace roughly:

- 162,878 metric tons of CO_2
- 2.5 metric tons of methane
- 2.7 metric tons of N_2O

If the Project is operated at full nameplate capacity of 102.4 MW, annually it would displace 333,574 metric tons of CO_2, 5.1 metric tons of methane, and 5.6 metric tons of N_2O. In reducing these and other greenhouse gases, the Project would also have indirect positive impacts on many of the harmful environmental conditions caused by these greenhouse gases.

In comparison to coal, the state's current main source of electricity, wind energy does not produce any ash or sludge that must be disposed of in landfills, and emits no arsenic, lead, cadmium, or other toxic heavy metals (Union of Concerned Scientists 2009). Reducing emissions of these pollutants, along with those that cause smog and acid rain such as SO_2 and NOx, the Project will have a net positive impact on air quality and climate change.

3.3 Water Resources

Waters of the United States are defined by the United States Army Corps of Engineers (USACE) as all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide and all interstate waters (33 CFR Part 328). Degradation of any such Waters is prohibited by the Clean Water Act unless authorized by permit. The legal definition of a wetland, as outlined in the USACE Wetlands Delineation Manual, is as follows:

> The term "wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. (33 CFR 328.3(b); 1984)

Federal and state regulations affect construction and other activities in wetlands. The principal federal laws affecting wetlands and streams are Sections 404 and 401 of the Clean Water Act. Section 404 (regulation of discharge of dredge/fill materials into wetlands) is implemented by the USACE. Section 401 requires that activities applying for a USACE Section 404 permit obtain state Water Quality Certification (WQC) prior to USACE approval.

The following discussion of water resources includes descriptions of the surface water, groundwater, and wetlands found within the Project Area.

3.3.1 Existing Conditions

Surface Water

The Project Area has been subject to historic landform and hydrology modification. Modifications were made to facilitate coal mining and agricultural commodity production by altering the hydrologic regime by altering natural drainage contours. Smaller drainages have been channelized and incised and generally have narrow riparian corridors consisting of native and non-native grasses. Areas in agricultural production have been extensively tilled and drained to facilitate production of row-crops. Many of the upper reaches of drainages have been converted to non-wetland grass swales to control erosion and improve removal of excess soil moisture. Terrace systems designed to slow runoff and prevent erosion are also present within the Project Area.

There are no major rivers or traditional navigable waters found within the Project Area. Burnt Creek, which drains to the Missouri River, is located west of the Project Area. An unnamed tributary of Painted Woods Creek is located in the northeast portion of the Project Area and drains to Painted Woods and then to the Missouri River. An unnamed tributary of West Branch Apple Creek is found in the eastern portion of the Project Area and drains to Apple Creek then to the Missouri River. An unnamed tributary of Apple Creek is found in the southern portion of the Project Area and drains to Apple Creek and then to the Missouri River. These tributaries are waters of the United States by the USACE and EPA definitions.

Wetlands

Wetlands are important because they perform hydrologic (e.g., flood attenuation, surface water, groundwater recharge) and water quality (sediment retention, pollution control) functions. Wetlands also provide valuable habitat for species of special interest (e.g., migratory birds) and special status (e.g., state or federally listed endangered, threatened, proposed, and candidate species, or species of conservation concern) discussed in **Section 3.5**.

Waters of the U.S., as defined by Section 404 of the Clean Water Act (1973), are within the jurisdiction of the USACE. Jurisdictional waters within the Project Area are regulated by the USACE-Omaha District. Waters of the U.S. include both wetlands and non-wetlands that meet USACE criteria. USACE has determined that a jurisdictional wetland must have a predominance of hydrophytic vegetation, hydric soil, and wetland hydrology, and have a surface connection to a navigable water.

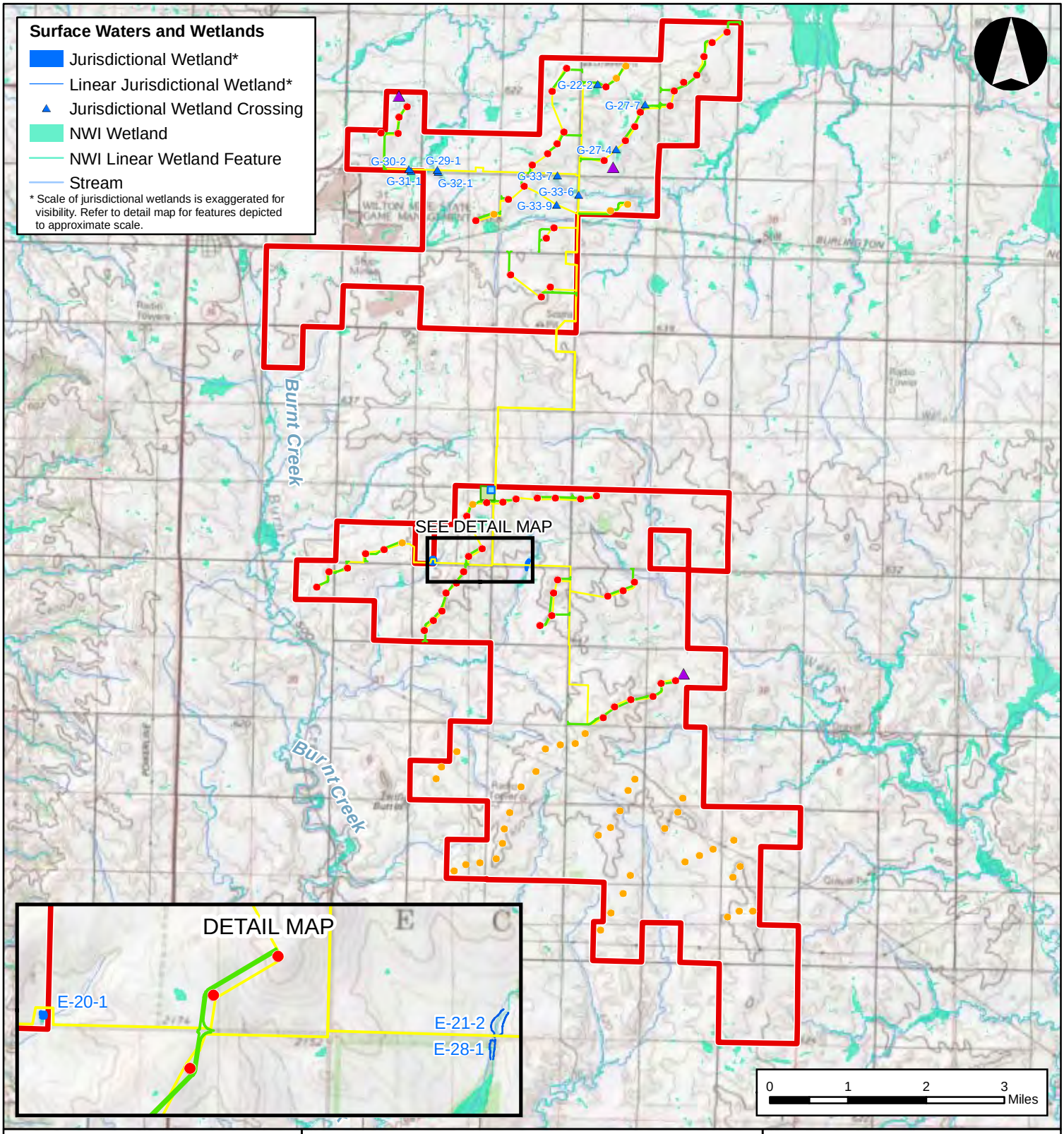
A wetland delineation was conducted for the Project in September 2009 (Tetra Tech 2009a) and completed in spring 2010. The following area of investigation was surveyed to determine potential impacts:

- Turbine Pads: 250-foot radius
- Private Access Roads: 250-foot wide area (125 feet on either side of centerline)
- Public Roads: 66-foot wide area (33 feet on either side of centerline)
- Electrical Collection Lines: 250-foot wide area (125 feet on either side of centerline)

USACE jurisdiction was evaluated using the methodologies cited in the USACE Jurisdictional Determination Form Instruction Guidebook, including the December 2, 2008; USACE/EPA revised Rapanos guidance (USACE/EPA 2008).

Thirteen features in the Project Area were determined to be USACE jurisdictional wetlands or waters of the U.S. (**Figure 11**). Six features were classified as jurisdictional wetlands, four features were classified as jurisdictional wetland impoundments, two features were classified as seasonal relatively permanent waters (RPW) with adjacent wetlands, and one feature (E-20-1) was classified as a jurisdictional non-wetland impoundment. This latter feature is adjacent to an unnamed tributary of Burnt Creek. Most of the other water features that were surveyed consisted of isolated wetlands, herbaceous wetlands, and non-wetland vegetated swales[1].

[1] Determinations of jurisdictional features can only be made by the USACE and EPA.



BALDWIN WIND, LLC

Baldwin Wind Energy Center

BURLEIGH COUNTY, ND

Environmental Assessment
Figure 11. Surface Waters and Wetlands

JUNE 2010

TETRA TECH EC, INC.

Legend

Wind Turbine
- Planned
- Alternate
- Met Tower

Collection Line

Proposed Substation

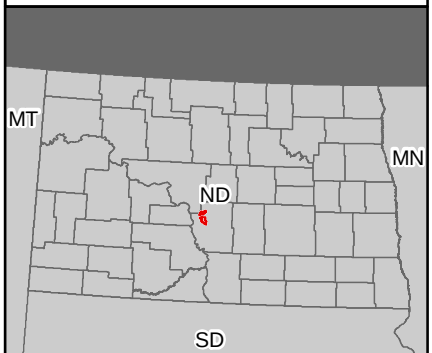
Temporary Substation Impact Area

Access Road

Project Area

Sources: USFWS NWI; USGS NHD; Tetra Tech 2009, 2010.

OVERVIEW MAP



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Groundwater

Groundwater resources in Burleigh County are available from both surficial and bedrock aquifers and are generally plentiful (Kume and Hansen 1965). Quaternary sands and gravels of alluvial and glacial outwash deposits provide the highest yields and best quality water; however, these aquifers are primarily concentrated in the south-central and northeast portions of the county, and in narrow bands along existing rivers in the rest of the county. Bedrock aquifers are more widely distributed throughout the county and provide the primary source for most domestic and stock wells. Along the eastern extent of the southern portion of the Project Area, a productive surficial aquifer is located within a narrow band of alluvial deposits along West Branch Apple Creek. Another narrow, productive, alluvial aquifer is located near the northeastern corner of the northern portion of the Project Area. With these two exceptions, the sedimentary bedrock of the Bullion Creek Formation provides the major source of groundwater in the Project Area. Water from these rocks is typically hard, but is adequate for use in domestic and stock wells. Yields are generally less than 20 gallons per minute (gpm) (Randich and Hatchett 1966).

Review of driller logs available from the North Dakota State Water Commission database indicates that at least 39 wells have been drilled within the Project Area, all of which are domestic wells, stock wells, or monitoring wells. Well logs indicate that static water levels in the Project Area range mainly from about 60 to 160 feet below ground surface (bgs). Along and outside the eastern edge of the southern portion of the Project Area, a few well logs describe much shallower static water levels, in surficial sediments at about 15 to 25 feet bgs (NDSWC 2009). Based on the proximity of these wells to the West Branch Apple Creek and one of its tributaries, it is likely that they tap alluvial aquifers with locally elevated groundwater levels.

3.3.2 Potential Impacts of the Proposed Project

A significant impact to water resources would occur if 1) the Proposed Action causes a loss or degradation of wetlands in violation of a USACE permit; 2) the Proposed Action causes an increase in susceptibility to on-site or off-site flooding due to altered surface hydrology; 3) the Proposed Action causes a violation of the terms and conditions of a NDDoH stormwater permit; or 4) the Proposed Action causes a loss or degradation of surface water quality.

Baldwin Wind has committed to no permanent wetland impacts. **Table 3** summarizes the delineation information and anticipated impacts for the 13 USACE-jurisdictional features. Six of the USACE-jurisdictional features (E-20-1, G-22-2, G-27-7, G-31-1, G-33-7, and G-33-9) lie within the area of investigation, but no physical crossing is planned at these locations and no impacts are expected to result from construction activities.

Features E-21-2, E-28-1, G-27-4, G-29-1, G-30-2, G-32-1, and G-33-6 are proposed locations of underground electrical collection lines; features E-21-2 and E-28-1 are also the location of public road improvements. Assuming that the collection line is bored using horizontal directional drilling, the boring initiated and terminated beyond the delineated boundaries of the drainage, and proper environmental protection measures will be implemented to assure no migration of any facility construction fill be discharged into jurisdictional wetland, any potential impacts from the installation of the line would be eliminated.

Table 3.
USACE Jurisdictional Area Impact Summary

Location ID	Water Body Name[1]	Habitat Type	Rapanos Determination[1]	Delineated Area or Width	Facility Type	Wetland Impacts
E-20-1	Wetland adjacent to an Unnamed Tributary of Burnt Creek	Herbaceous Wetland	Wetland	N/A	Within AOI	No physical crossing is planned at this location and no impacts are expected to result from construction activities.
E-21-2	Wetland impoundment of an Unnamed Tributary of Burnt Creek	Herbaceous Wetland	Wetland Impoundment	17 Ln Ft	Public Road Improvement	Tetra Tech has measured the width of the public road improvement right of way at this location and believes it to be of sufficient width to facilitate construction activities. No impacts anticipated.
				163 Ln Ft	Collection Line	Collection line will be installed using HDD to completely avoid impacts to the wetland.
E-28-1	Unnamed Tributary of Burnt Creek	Herbaceous Wetland	Wetland Impoundment	41 Ln Ft	Public Road Improvement	Tetra Tech has measured the width of the public road improvement right of way at this location and believes it to be of sufficient width to facilitate construction activities. No impacts anticipated.
				70 Ln Ft	Collection Line	Collection line will be installed using HDD to completely avoid impacts to the wetland.
G-22-2	Wetland at headwaters of an Unnamed Tributary of Painted Woods Creek	Herbaceous Wetland	Wetland	26,827 Sq Ft	Within AOI	There is no physical crossing at this location. Proper environmental protection measures will be implemented to assure no migration of any facility construction fill be discharged into jurisdictional wetland.
G-27-4	Wetland impoundment of an Unnamed Tributary of Painted Woods Creek	Herbaceous Wetland	Wetland Impoundment	140 Ln Ft	Collection Line	Collection line will be installed using HDD to completely avoid impacts to the wetland.

Location ID	Water Body Name[1]	Habitat Type	Rapanos Determination[1]	Delineated Area or Width	Facility Type	Wetland Impacts
G-27-7	Wetland impoundment of an Unnamed Tributary of Painted Woods Creek	Herbaceous Wetland	Wetland Impoundment	7,732 Sq Ft	Within AOI	There is no physical crossing at this location. Proper environmental protection measures will be implemented to assure no migration of any facility construction fill be discharged into jurisdictional wetland.
G-29-1	Unnamed Tributary of Painted Woods Creek	Seasonal RPW w/ Adjacent Wetlands	RPW-Seasonal w/ Adjacent Wetlands	301 Ln Ft	Collection Line	Collection line will be installed using HDD to completely avoid impacts to the wetland.
G-30-2	Wetland at headwaters of an Unnamed Tributary of Painted Woods Creek	Herbaceous Wetland	Wetland	632 Ln Ft	Collection Line	Collection line will be installed using HDD to completely avoid impacts to the wetland.
G-31-1	Wetland at headwaters of an Unnamed Tributary of Painted Woods Creek	Herbaceous Wetland	Wetland	26,827 Sq Ft	Within AOI	There is no physical crossing at this location. Proper environmental protection measures will be implemented to assure no migration of any facility construction fill be discharged into jurisdictional wetland.
G-32-1	Unnamed Tributary of Painted Woods Creek	Seasonal RPW w/ Adjacent Wetlands	RPW-Seasonal w/ Adjacent Wetlands	40,297 Sq Ft	Within AOI	Collection line be installed using HDD to completely avoid impacts to the seasonal RPW and adjacent wetlands.
G-33-6	Wetland adjacent to an Unnamed Tributary of Painted Woods Creek	Herbaceous Wetland	Wetland	106 Ln Ft	Collection Line	Collection line will be installed using HDD to completely avoid impacts to the wetland.

[1] There are no major rivers or traditionally navigable waters found within the Project area. Unnamed Tributary of Painted Woods Creek is found in the northern portion of the site and drains to Painted Woods and then to the Missouri River. Unnamed Tributary of Burnt Creek is found in the central portion of the site and drains to Burnt Creek then to the Missouri River. Unnamed Tributary of West Branch Apple Creek is found in the eastern portion of the site and drains to Apple Creek then to the Missouri River. Unnamed Tributary of Apple Creek is found in the southern portion of the site and drains to Apple Creek and then to Missouri River.

HDD = Horizontal Directional Drilling

AOI = Area of Investigation

RPW = Relative Permanent Water

Ln Ft = Linear Feet

Sq Ft = Square Feet

The width of the public road at features E-21-2 and E-28-1, which measures 36 feet, appears to be sufficient to facilitate construction activities without widening the existing road surface. Adding gravel to strengthen the road and upgrade its capacity to accommodate construction vehicles should not result in impacts to the jurisdictional drainage provided gravel is not allowed

to enter the jurisdictional area. However, other modifications, such as widening of the road to facilitate construction access, would result in impacts to this jurisdictional drainage.

The Project is below the 0.5-acre threshold, making it eligible under the USACE Nationwide Permit (NWP) 12 for Utility Line Activities. Given the assumptions above, the Project is also below the 0.1-acre notification and mitigation thresholds of NWP 12. Application for a Section 404 Permit as well as notification to the USACE-Omaha District office is unnecessary.

On-site or off-site flooding would not result from the construction and grading of roads and other facilities related to the Proposed Action. Implementation of environmental protection measures such as installation of adequately sized and appropriately placed culverts and avoidance of channels and other areas of concentrated flow, will ensure that flooding does not occur.

A stormwater runoff permit would be obtained from NDDoH prior to construction. Compliance with this permit and the associated stormwater pollution prevention plan would ensure that surface water is not adversely affected by runoff from disturbances and construction areas.

As with any construction activity, there is a possibility of spilling fuel, hydraulic fluid, or other hazardous substances. The potential of such events would be minimized through implementation of the environmental protection measures described in Section 2.2.6. Construction equipment would be equipped with spill cleanup kits. Equipment refueling would take place at secure areas, away from wetlands or drainages. These measures would ensure that surface and ground water quality is not degraded through spillage of contaminants.

Impacts to groundwater resources in the Project Area are anticipated to be minimal. Major withdrawals of groundwater will not be necessary due to the limited water supply needs of the Project. No new wells will be drilled. Based on the small amount of increased impervious surface area that would be created by Project components relative to the separation of these components and the size of the entire Project Area, the Project will likely have minimal impacts to regional groundwater recharge. Based on the generally deep water levels recorded in well logs in the area, Project construction activities such as excavation and construction of foundations are unlikely to affect groundwater quality or flow patterns. If impacts were to occur, they would likely be minor and highly localized, and unlikely to adversely affect local water supply wells. In addition, each turbine would be located a minimal distance of 1,400 feet away from existing residential structures, thereby minimizing the risk of impacts to private wells in the area, which are assumed to be located in proximity to the structures they serve.

Development of the turbine foundations may require subsurface blasting, which could potentially fracture bedrock and affect groundwater flow in the immediate vicinity of the disturbance. In the event that subsurface blasting is required, a blasting plan would be developed and implemented to keep the impacts localized and fracture the least amount of bedrock necessary for construction. Potential disturbances due to blasting would be localized and temporary, with groundwater likely to resume its natural course of flow downgradient of the foundation. Although it is not anticipated, if dewatering of excavations is necessary, water would be discharged to the surrounding surface, allowing it to infiltrate back into the ground to minimize potential impacts.

No significant impacts to water resources are anticipated from the Proposed Action. Unlike coal production, the state's current main source of electricity which uses large amounts of water for cooling, wind energy uses no water for cooling.

3.4 Vegetation

The vegetation resources in the Project Area were investigated to assess impacts of the Proposed Action to biological resources.

3.4.1 Vegetation Communities

The Project Area is located in the Missouri Coteau region of the Northwestern Glaciated Plains (U.S. Geological Survey [USGS] 2007). The Northwestern Glaciated Plains ecoregion marks the western most extent of continental glaciation and is characterized by significant surface irregularity and high concentrations of wetlands. The wetlands of the Missouri Coteau and the neighboring prairie pothole region are the major waterfowl production areas in North America. Land use on the coteau is a mixture of tilled agriculture in flatter areas and grazing lands on steeper slopes. Native prairie, characterized by western wheatgrass (*Pascopyrum smithii*), big bluestem (*Andropogon gerardii*), needle-and-thread grass (*Stipa comata*), and green needlegrass (*Stipa viridula*), remains on unbroken areas.

Table 4 identifies current land use in the Project Area based on 2001 USGS National Land Cover data. According to this data, which is based on satellite data interpretation, land use in the Project Area is dominated by grassland (46 percent) and cultivated crops (45 percent). Pasture/hay covered five percent and developed/open space covered four percent; forests and water features were each one percent or less of the Project Area (**Figure 12**).

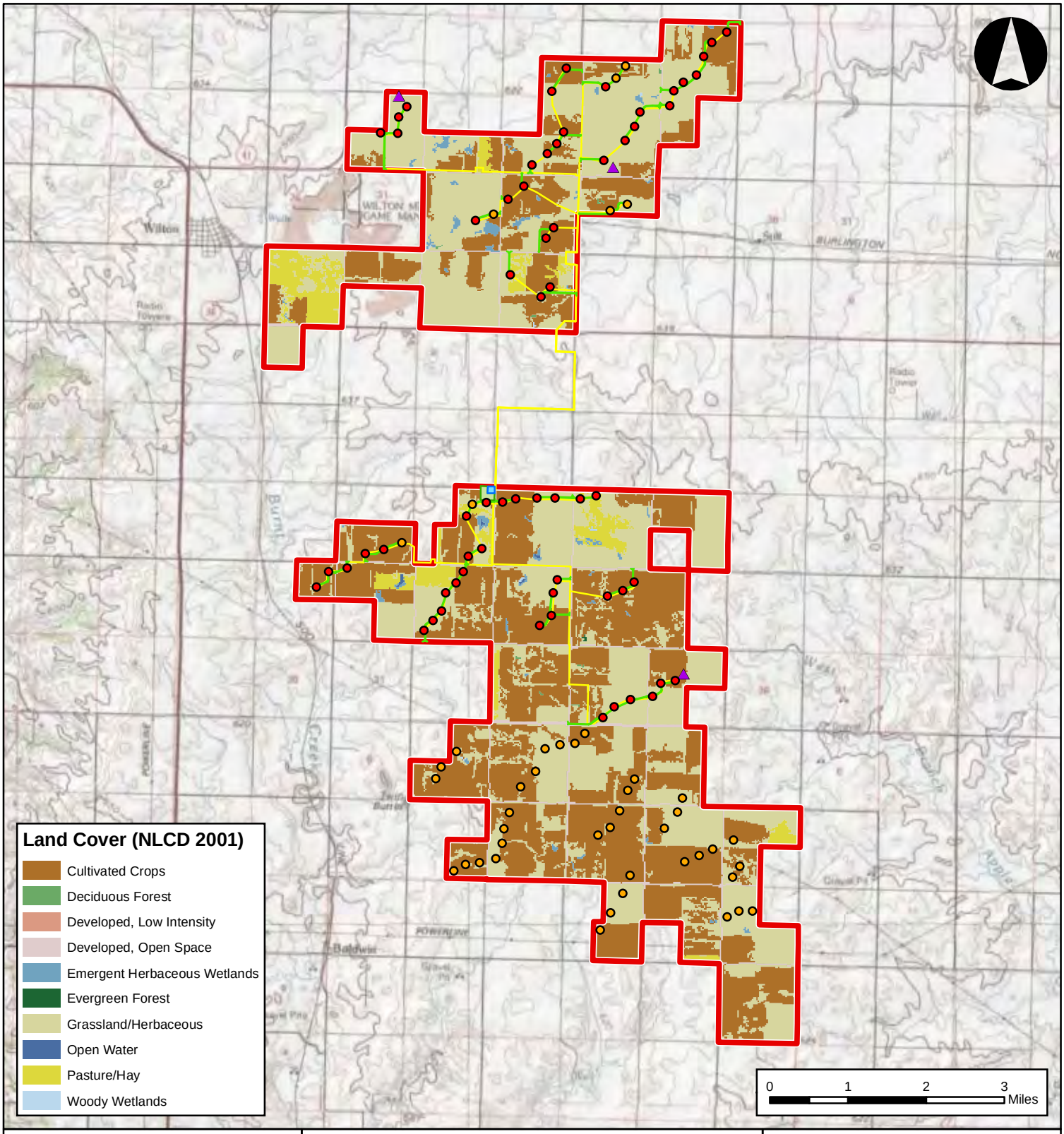
Table 4.
Land Cover within the Project Area

Land Cover	Acreage	Percent of Project Area*
Grassland/Herbaceous	9,765	46%
Cultivated Crops	9,453	45%
Pasture/Hay	992	5%
Developed, Open Space	795	4%
Emergent Herbaceous Wetlands	178	1%
Deciduous Forest	14	Less than 1%
Open Water	10	Less than 1%
Woody Wetlands	8	Less than 1%
Evergreen Forest	2	Less than 1%
Developed, Low Intensity	1	Less than 1%

Source: USGS, 2001.
*Percentages do not add to 100 due to rounding.

Agricultural Lands

Agricultural land is the dominant land cover type in the Project Area. In Burleigh County, the most common crops in production are dry land wheat (primarily spring wheat), sunflower, barley, corn, and hay. Hayland, cropland, and pasture are managed for the production of livestock forage and cereal crops within agricultural tracts. As discussed in **Section 3.1.1**, approximately 15 percent of the Project Area is classified as prime farmland; another 0.2 percent is considered prime farmland if drained, and 9 percent is considered soil of statewide importance.



BALDWIN WIND, LLC

Baldwin Wind Energy Center

BURLEIGH COUNTY, ND

Environmental Assessment
Figure 12. Land Cover

JUNE 2010

TETRA TECH EC, INC.

Legend

Wind Turbine

- Planned
- Alternate
- Met Tower

Collection Line

Proposed Substation

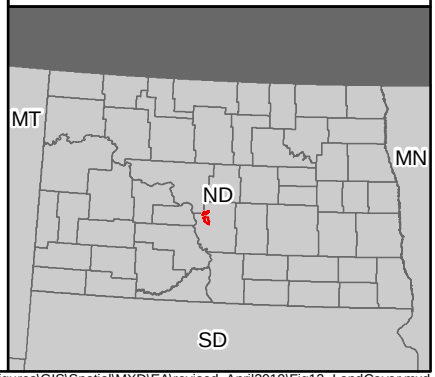
Temporary Substation Impact Area

Access Road

Project Area

Source: USGS MRLC 2001.

OVERVIEW MAP



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Grassland

Grasslands within the Project Area are typically grazed or hayed annually and include native species and mixed (native and non-native) pasturelands. Since the 1800s, 75 to 90 percent of North Dakota's native grasslands have been lost due to cropland conversion. Although there are no federal or state regulations explicitly protecting native prairie, the North Dakota Game and Fish Department (NDGFD) and the USFWS both highlight the significance of native prairie. According to the USFWS, native prairie has significant natural resource values including some of the following:

- Provides habitat for a number of migratory and resident grassland birds whose populations are declining.
- Provides nesting habitat for millions of waterfowl.
- Contains 200-300 plant species, which provide genetic diversity important to agriculture and medicine.
- Provides habitat for thousands of insects, including the Dakota skipper (*Hesperia dacotae*), a candidate species for listing under the Endangered Species Act (ESA), and other butterflies (e.g., regal fritillary [Speyeria idalia] and tawny crescent [*Phyciodes batesii maconensis*]).
- Crucial for soil and water conservation.
- Provides recreational opportunities, including hunting, bird watching, wildlife observation and hiking.

A field biologist conducted field surveys on September 18-21, 2009 and June 10, 2010 to determine the extent of native prairie within the Project Area (Tetra Tech 2009b). A total of 5,006 acres (24 percent of the total area surveyed) was classified as native prairie, and 1,143 acres (5 percent of the total area surveyed) were classified as tame grasslands; the remaining acreage consists primarily of agricultural croplands. Large contiguous areas of native prairie were found in the central portions of the Project Area. Tame grasslands were found primarily in the northwest portion of the Project Area. Grasslands (both native and tame) are more fragmented and less abundant in the remainder of the Project Area.

Forest and Shelterbelt

Trees and shrubs in the Project area are limited to mostly windbreaks around residential properties and between fields and include species such as juneberry (*Amelanchier sp*.), leadplant (*Amorpha canescens Pursh*), and Siberian Elm (*Ulmus pumila*).

Aquatic and Riparian

Aquatic and riparian habitats can be disproportionately important to wildlife because they tend to have high species richness and diversity, and often exhibit high vertical habitat diversity. These habitats represent approximately one percent of the Project Area (**Figure 12**). Riparian areas within the Project Area are small and are associated with ditches along roads and other modified land areas. Representative species include water smartweed *(Polygonum amphibium)*, water sedge (*Carex aquatilis*), reed canary grass *(Phalaris arundinacea)*, narrowleaf cattail *(Typha angustifolia)*, and black willow *(Salix nigra)*.

3.4.2 Rare Plant Populations

The ESA mandates that actions are not to jeopardize the continued existence of listed species. The USFWS maintains a list of federal threatened and endangered plant species. Species listed by the USFWS often have low population sizes, are sensitive to habitat alterations, or have cultural significance and require protective measures for their perpetuation.

The only plant of special concern in North Dakota is the western prairie fringed orchid (*Platanthera praeclara*), which is listed as threatened by the USFWS. This species is only found in tallgrass prairies and sedge meadows, neither of which occurs to a notable extent within the Project Area. Populations are known to exist well outside of the Project Area in southeast North Dakota. USFWS has determined that this species does not occur in Burleigh County (Western 2005). While no specific surveys were conducted throughout the entire Project Area to determine if the species is present, this species was not incidentally observed during any site visits.

3.4.3 Noxious and Invasive Weeds

The North Dakota Department of Agriculture (NDDA) defines two categories of invasive species: 1) "noxious weeds," any plants that have been designated as injurious to public health, livestock, land or other property 2) "invasive species," species that are non-native and whose introduction causes or is likely to cause economic or environmental harm or harm to human health (NDDA 2003; North Dakota Century Code 2003).

During the 2009 native prairie survey (Tetra Tech 2009b) four species listed as North Dakota State Noxious Weeds were found within the Project Area: absinthe wormwood (*Artemisia absinthium*), Canada thistle (*Artemisia absinthium*), field bindweed (*Convolvulus arvensis*), and leafy spurge (*Euphorbia esula*). An additional seven species listed as North Dakota State Invasive Species were found within the Project Area: black medic (*Medicago lupulina*), crested wheatgrass (*Agropyron cristatum*), field sow thistle (*Sonchus arvensis*), Kentucky bluegrass (*Poa pratensis*), Siberian elm (*Ulmus pumila*), smooth brome (*Bromus inermis*), and yellow sweet clover (*Melilotus officinalis*).

3.4.4 Potential Impacts of the Proposed Project

A significant impact to vegetation resources would occur if the Proposed Action resulted in: 1) a loss of habitat resulting in the listing of or an adverse impact on the continued existence of plant or animal species; 2) uncontrolled expansion of noxious weeds; or 3) the removal of habitat important to the continued survival and reproduction of other wildlife species.

Approximately 1,467 acres (6.9 percent of the total Project Area) would be disturbed during the construction of the Project. Construction activities may disturb soils and vegetation to an extent that would require some regrading and reseeding following completion of operations. Should such disturbance occur, these soils would be smoothed to the original contours and reseeded, if necessary, with native perennial species common to the area. If surface disturbance does not significantly impact vegetation, plants may regenerate or sprout from onsite propagules, thus negating the need for additional revegetation. Routes necessary to maintain access to the site would remain cleared of vegetation, and some coarse surface material may be left in place to ensure access is possible during adverse weather conditions.

As discussed in Section 3.1, there are 3,103 acres of prime farmland in the Project Area, and approximately 9 acres would be permanently impacted by the Project, including 8 turbine pad sites (but none of the met towers). There are 1,811 acres of soils of statewide importance in the Project Area, and approximately 9 acres would be permanently impacted by the Project Area. There are 66,688 acres of prime farmland and 58,235 acres of soils of statewide importance in the county, so there will not be a significant loss of prime farmland or soils of statewide importance as a result of the Project.

Vegetation communities most sensitive to disturbance are native prairie and wetlands. Potential impacts to native prairie due to Project construction activities were analyzed. Under the proposed configuration (proposed turbine layout dated May 5, 2010), 19 of the 64 planned turbines and two met towers will be placed within native prairie. Approximately 93 acres of the 5,006 total acres of surveyed native prairie (2 percent) will be permanently affected by the Project. During the planning phase, access roads and turbine locations would be placed to avoid impacts to wetland areas.

Project facilities have been sited within previously disturbed agricultural land as much as practicable and the total Project footprint (roads, collection lines) has been minimized to reduce impacts to native prairie.

Access road construction will result in the greatest effects to native vegetation resulting in permanent loss of these habitats where they occur along selected routes. Installation of the proposed buried collector system will result in some temporary effects to native and non-native grasslands. Effects will be mitigated by reseeding the trenched areas with native grasses following completion of construction activities.

New road construction will also include dust control measures to reduce impacts from dust on adjacent vegetation communities. Introduction of noxious weeds will be mitigated through prompt revegetation with regionally native species or restoration of prior land use.

As no threatened or endangered plants were observed or previously documented to occur within the Project Area, the Project is unlikely to impact any listed threatened or endangered plant. The impacts to vegetation of the Proposed Action are not anticipated to be significant.

3.5 Wildlife

Although the evaluation of wildlife resources focused on the Project Area **(Figure 2**), some regional discussion is included. This is necessary because of the greater mobility of wildlife and the high usage of the region by migratory birds. Existing literature and other information related to known species distributions, including endangered, threatened, proposed, candidate, and sensitive species; migration pathways; and wetlands and unique habitats within the Project Area, were reviewed for relevance to the Proposed Action.

3.5.1 Existing Wildlife Species

A detailed list of wildlife species is not readily available for the Project Area. Based on issues identified at wind generation sites throughout the U.S., those species of greatest concern are federally or state-protected species, avian species, and bats that may occur in the Project Area. During the avian surveys (see below), incidental mammal observations were recorded. The most abundant mammal species recorded was white-tailed deer (*Odocoileus virginianus*) with

164 individuals observed within 15 groups. Six coyote (*Canis latrans*), two white-tailed jack rabbits (*Lepus townsendii*), one fox squirrel (*Sciurus niger*), and one thirteen-lined ground squirrel (*Spermophilus tridecemlineatus*) were also observed.

Avian Species

Avian use surveys were conducted in fall 2008 and spring 2009 in an area slightly larger than the current Project Area (WEST 2009). The surveys included 18 point count locations. The surveys did not include the portion of the Project Area in Grass Lake Township. This area is currently being surveyed (spring/summer 2010) and results will be made available once the survey is complete. Waterfowl use was highest in the spring, and raptor use was highest in the summer and lowest in the fall. Three species (3.9% of all species) composed approximately 49 percent of the observations: sandhill crane (*Grus canadensis*), Canada goose (*Branta canadensis*), and red-winged blackbird (*Agelaius phoeniceus*). The most common raptors were red-tailed hawk (*Buteo jamaicensis*) and northern harriers (*Circus cyaneus*). Five active nests (three red-tailed hawk and two unidentified hawk) were reported.

Two bird species of primary interest to wind energy development in the central and north-central United States are whooping cranes (*Grus americana*) and sharp-tailed grouse (*Tympanuchus phasianellus*). No whooping cranes or sharp-tailed grouse leks (mating displays) were observed during the surveys, although individual grouse were observed.

3.5.2 Sensitive Wildlife Species

The ESA, as administered by the USFWS, mandates protection of species federally listed as threatened or endangered and their associated habitats. The ESA makes it unlawful to "take" a listed species without special exemption. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or attempt to engage in any such conduct." Significant modification or degradation of listed species' habitats is considered "harm" under ESA regulations and projects that have such potential will require consultation with USFWS and may require the issuance of an incidental take permit or mitigation measures to avoid or reduce impacts to these species. Candidate species receive no statutory protection from the USFWS; however, they do receive full protection once listed. In addition, federal action agencies may elect to treat candidate species as listed.

In their November 2009 reply to Western's consultation letter (**Appendix C**), the USFWS identified five wildlife species protected by the ESA that had the potential to occur in the vicinity of the Project: pallid sturgeon (*Scaphirhynchus albus*) – Endangered, interior least tern (*Sterna antillarum*) – Endangered, whooping crane – Endangered, gray wolf (*Canis lupus*) – Endangered, and piping plover (*Charadrius melodus*) - Threatened with Designated Critical Habitat in the Project vicinity.

Whooping Crane

The whooping crane is protected by both state and federal laws in the United States. It was considered endangered in the United States in 1970 and the endangered listing was 'grandfathered' into the ESA in 1973. Under the North Dakota comprehensive wildlife conservation strategy guide, a level three species of conservation priority is a species of

moderate priority but is believed to be peripheral or non-breeding in North Dakota (Hagen et al. 2005).

One self-sustaining wild population of whooping cranes currently exists in the world. Members of this population breed primarily within the boundaries of Wood Buffalo National Park in Canada and migrate through the central United States in route to the wintering grounds at Aransas National Wildlife Refuge along the Gulf Coast of Texas. This flock is referred to as the Aransas-Wood Buffalo National Park Population. Due to intensive management, this population has increased from 15 birds in 1941 to 263 as of the start of spring migration in 2010 (WCCA 2010).

Whooping cranes undertake a 5,000-mile annual round-trip migration from the breeding area in Canada to the wintering area in Texas. Individuals depart the breeding ground in Canada and travel south through Northwest Territories, Alberta, Saskatchewan, Montana, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and reach the wintering ground on the Texas coast. The migration route is well defined and 95 percent of all observations occur within a 200-mile wide corridor during spring and fall migration (CWS and USFWS 2007). The Project Area is centrally located in the migration corridor. There were no recorded observations of whooping cranes within the Project Area, although 79 observations have occurred within the 35-mile surrounding buffer area from 1961 to 2007.

Pallid Sturgeon

The pallid sturgeon historically occupied the Mississippi and Missouri rivers and their major tributaries (USFWS 1990a). The reason for decline of the sturgeon has been water control and development projects on the Mississippi and Missouri rivers. The sturgeon still occupies portions of the main stem of the Missouri River.

Interior Least Tern

The interior population of the least tern was listed as endangered species in 1985 (USFWS 1985a). This tern nests on barren sandbars on the Missouri River and feeds on small fish in the river (USFWS 1990b). In North Dakota, the interior least tern is primarily found on sandbars on the Missouri River between the Garrison Dam and Lake Oahe, in the reservoirs, and on the Missouri and Yellowstone Rivers upstream of Lake Sakakawea (USFWS North Dakota Ecological Field Services Office 2008).

Piping Plover

The Great Plains population of the piping plover was listed as a threatened species in 1985 (USFWS 1985b). The plover nests in 23 counties in North Dakota, primarily in alkali wetlands in the Missouri Coteau and on barren sandbars in the Missouri River and system reservoirs. Reasons for decline of the piping plover include habitat loss and nest depredation in the wetlands. The main reason for decline of the species along the Missouri River is habitat loss due to water development projects (e.g. Fort Peck Dam, Garrison Dam, and Oahe Dam) and loss of wetlands due to agriculture and other developments.

Critical habitat[2] for the piping plover was designated on September 11, 2002 (USFWS 2002), and includes the entire length of the Missouri River in North Dakota and the following locations in Burleigh County: Lake Arena, Long Lake National Wildlife Refuge, Rachel Hoff Waterfowl Production Area, and Rath Waterfowl Production Area. The closest parcel of critical habitat to the Project is over five miles away.

Gray Wolf

The gray wolf was listed as an endangered species in 1978 (USFWS 1978). In 2003, the USFWS downlisted the two northern subpopulations (western and eastern distinct population segments) to threatened (USFWS 2003). While additional decisions regarding the western populations of gray wolf have been made more recently, the eastern population remains listed as threatened. Once common throughout North Dakota, the last confirmed sighting in the state was 1991, although there have been more recent but unconfirmed reports of sightings in the Turtle Mountains in the north-central portion of the state.

State-listed Species

Although North Dakota does not have a state endangered species law, the NDGFD has identified 100 species of conservation priority, or those in greatest need of conservation in the state (NDGFD 2008). They are categorized into three levels according to the need to conserve them:

- Level I - Species in greatest need of conservation
- Level II - Species in need of conservation, but have had support from other wildlife programs
- Level III - Species in moderate need of conservation, but are believed to be on the edge of their range in North Dakota

The interior least tern is a Level I species, the piping plover and pallid sturgeon are Level II species, and the whooping crane and gray wolf are Level III species. In a letter dated October 13, 2009 regarding the proposed Project, the NDGFD did not list particular species of concern that may be found in the Project Area; rather, the agency noted that disturbance of native prairie and wetlands are of primary concern with regard to wind energy development (**Appendix C**).

During the avian surveys (WEST 2009), 17 species of conservation priority were observed. These were: canvasback (*Athya valisineria*), northern harrier (*Circus cyaneus*), Franklin's gull (*Larus pipixcan*), redhead (*Aythya Americana*), northern pintail (*Anas acuta*), bobolink (*Dolichonyx oryzivorus*), sharp-tailed grouse (*Tympanuchus phasianellus*), grasshopper sparrow (*Ammodramus savannarum*), upland sandpiper (*Bartramia longicauda*), Swainson's hawk (*Buteo swainsoni*), marbled godwit (*Limosa fedoa*), loggerhead shrike (*Lanius ludovicianus*), bald eagle (*Haliaeetus leucocephalus*), Wilson's phalarope (*Phalaropus tricolor*), black tern (*Chilidonias niger*), ferruginous hawk (*Buteo regalis*), and horned grebe (*Podiceps auritus*).

[2] Critical habitat is a term defined and used in the ESA. It is a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

Bats

Of the 47 bat species in the United States, 10 occur in North Dakota (ASM 2007). Of these 10 species, five potentially occur within the Baldwin Project Area based on current known distribution ranges (ASM 2007, NatureServe 2008, BCI 2009). None of the species that potentially occur within the Project Area are federally listed as threatened or endangered. Three of the species that could potentially occur within the Project Area – hoary bat, silver-haired bat, and eastern red bat – are highly migratory and are found in the greatest abundance in North Dakota during late May through early September (Cryan 2003).

3.5.3 Potential Impacts of the Proposed Project

A significant impact to wildlife resources would occur if the Proposed Action resulted in the loss of individuals of a population leading to the listing of or jeopardizing the continued existence of animal species. A significant impact to endangered, threatened, proposed, and candidate species would occur if: 1) the Proposed Action resulted in the loss of individuals of a population leading to a jeopardy opinion from the USFWS; or 2) the Proposed Action resulted in the loss of individuals leading to the upgrade (e.g., change in listing from threatened to endangered) of the federal listing of the species.

Impacts to wildlife can be short-term (one or two reproductive seasons, generally during the construction period), or long-term (affecting several generations during the life of the Project). Impacts can also be direct (an immediate effect to an individual, population, or its habitat), or indirect (an effect that may occur over time or result from other actions).

In general, most wildlife species do not use disturbed agricultural land as their primary habitat. As a result, there will be minimal impact to most species. Impacts to avian species include collisions with wind turbines, transmission lines, and guyed met towers. The risk of collisions from the Project will be reduced by use of modern turbine and associated facility designs (e.g., solid rather than lattice towers, bird diverters and perch deterrents) and the development of an ABPP. Environmental protection measures described in **Section 2.2.6** of this document would further reduce impacts.

Sensitive Wildlife Species

Whooping Crane

Baldwin Wind commissioned a detailed likelihood of occurrence assessment for whooping cranes (Tetra Tech 2009c). Results of this assessment indicate that the potential for direct impacts to whooping cranes is low. First, the likelihood of crane occurrence within the Project Area is low. Although the Project is located within the 75-percent of observations migration corridor, there are no historical records of whooping cranes occurring within the Project Area (there are sightings within 35 miles). The landscape ratio of suitable wetland-agricultural matrix habitat is slightly higher within the Project Area (32 percent) than it is in the surrounding 35-mile buffer (30 percent). However, the percentage of available wetlands within the Project is much lower than the surrounding 35-mile buffer area. Second, there are no reported incidents of turbine-related crane fatalities of whooping cranes or sandhill cranes and the Applicant is planning to bury all collection systems (with the exception of one new line and one re-routed line across 279th Avenue NE), thereby minimizing the possibility of a power line collision.

The USFWS has made a determination that the presence of a wind farm will cause whooping cranes to avoid the wetlands in the vicinity of the Project (Jeff Towner, personal communication). As a result, in the opinion of the USFWS, the proposed action would result in the long-term, indirect impact of the loss of potential roosting habitat. There are 144 acres of potentially suitable wetland habitat within the Project Area (less than 1 percent of Project Area). However, potential roosting habitat is not limiting on the landscape, with suitable habitat available in the immediate surroundings (221,983 acres of suitable roosting habitat occur within the 35-mile buffer); therefore, it is unlikely that this loss of potential habitat will negatively affect whooping cranes at the individual or population level. Based on the low magnitude of potential habitat loss, the low probability of site usage, and the avoidance and minimization measures discussed in **Section 2.2.6** (e.g., buried collection systems), the Proposed Action may affect but is not likely to adversely affect the whooping crane.

Pallid Sturgeon

The Proposed Action would not affect water quantity or quality in the Missouri River or its major tributaries. It is unlikely that the sturgeon would occur in the ephemeral streams in the Project Area, and the proposed Action is therefore unlikely to affect the pallid sturgeon.

Interior Least Tern

The Project is located more than five miles to the east of interior least tern habitat, the Project Area contains no sizeable rivers with sandbars, and Project development will not affect water quantity or quality in the Missouri River or its major tributaries. Therefore, the Project will have no impact on breeding interior least terns. Furthermore, the limited extent of wetlands close to the Project and the low likelihood that existing wetlands (e.g., farm ponds) contain enough fish to attract foraging terns suggests that the likelihood of terns occurring near the Project is very low. In the highly unlikely event of this species occurring in the Project Area, there will be no new transmission lines as part of the Proposed Action and all new electrical collection lines will be buried (except the one new line and one re-routed line across 279th Avenue NE), so the potential for collisions with transmission lines will be minimized. To date, no interior least tern fatality has been reported at a wind farm. No interior least terns were observed during the fall 2008 and spring 2009 avian surveys (WEST 2009). In summary, the Proposed Action may affect but is not likely to adversely affect the interior least tern.

Piping Plover

There are no alkali lakes within 0.5 mile of the Project, minimizing the possibility of piping plovers breeding in the Project Area. The closest parcel of designated critical habitat to the Project (the Missouri River) is over five miles away; breeding piping plover rarely travel more than one mile from their nest sites during the breeding season (USFWS 2002), thereby minimizing the potential for piping plovers to occur on site while foraging during the breeding season. In the highly unlikely event of this species occurring in the Project Area, the avoidance of permanent wetland impacts and the burying of all new utility lines will minimize potential impacts. To date, no piping plover fatality has been reported at a wind farm and no piping plover were observed during the fall 2008 and spring 2009 avian surveys (WEST 2009). As a result, the Project may affect but is not likely to adversely affect the piping plover. As there would be no construction in designated critical habitat and no changes to water quantity or quality associated

with the Project, the Proposed Action will not result in the destruction or adverse modification of designated critical habitat.

Gray Wolf

It is possible that a transient gray wolf may move through the Project Area, thereby being exposed to potential negative interactions with moving vehicles. However, the establishment of speed limits on Project roads would minimize the potential for collisions. No other aspect of Project construction or operation would affect the survival of a transient individual. Therefore, the Proposed Action may affect but is not likely to adversely affect the gray wolf.

Bats

Tetra Tech evaluated the biological and landscape features of the Project Area to determine the potential for bats to occur (Tetra Tech 2010a). The analysis estimates the likelihood of occurrence of bats within the Project Area based on a suite of variables that are related to occurrence and potential mortality. Bat presence is more likely to occur over the life of a project at a project with a higher rating, thus indicating higher likelihood of occurrence and, thus, potential for turbine-related fatalities given the patterns of bat fatalities at other wind farms in the United States. When viewed on a regional scale, the Baldwin Project Area contains less suitable bat habitat than the surrounding landscape. Overall, Tetra Tech estimates a low likelihood of occurrence for bat species for the entire Baldwin Project Area. Should bats occur in the Project Area, the potential for direct impacts (e.g., mortality resulting from turbine collisions or barotraumas) will be minimized by turbine siting away from areas of potential bat activity (e.g., wetlands).

3.6 Land Use

The Project Area is located in Burleigh County in central North Dakota, a primarily rural agricultural area located northeast, east, and southeast of Wilton, North Dakota. This analysis focuses on the Project Area, with a short discussion on the land uses within Burleigh County.

3.6.1 Existing Conditions

The land in Burleigh County within the Project Area boundary is primarily agricultural with scattered farmstead residences, supporting both crops and livestock grazing. The Project will be located in north central Burleigh County, four miles southeast of Wilton. The Project Area is not within any city limits or within an area of any known military installation. The development of the Project will not displace any residents or existing or planned industrial facilities. Wind turbines will be sited a minimum of 1,400 feet from occupied residences.

The Project Area is primarily rural agricultural land in private ownership. Current property use is almost exclusively limited to pastures used for cattle grazing and cultivated fields planted with corn, soybeans, sunflower or wheat. The majority of cultivated areas have drain tile systems installed to improve agricultural production. Receiving drainages have been channelized, deepened, and/or contoured to accommodate drainage system flows and to facilitate agricultural equipment crossing.

Industrial developments in the Project Area are limited to an existing wind energy facility, overhead and/or underground transmission lines, and communication towers. U.S. Highway 83

runs north-south approximately two miles west of the Project Area. The roads within the Project Area include asphalt-paved county and township roads, gravel surfaced roads and two-track grassed farm access roads and trails.

Easements and Other Protected Lands

The USFWS has been purchasing wetland easements in the Prairie Pothole Region since 1989. Easement wetlands are part of the National Wildlife Refuge System. A wetland easement is a legal agreement that pays landowners to permanently protect wetlands. Wetlands covered by an easement cannot be drained, filled, leveled, or burned. When these wetlands dry up naturally, they can be farmed, grazed, or hayed. No signs are placed on the property and the easement does not affect hunting or mineral rights (USFWS 2009). There are no USFWS waterfowl production areas (WPAs) or grassland easements within or adjacent to the Project Area. There are three wetland easements near the Project Area (Figure 2). They are administered by the Long Lake Wetland Management District (WMD).

The Long Lake WMD also manages four national wildlife easement refuges in the vicinity of the Project Area. The closest is Canfield Lake National Wildlife Refuge (NWR), located approximately four miles to the northeast.

The Wilton Mine State Game Management Area is located adjacent to the Project Area east of Wilton. Cross Ranch State Park, along the Missouri River, is located approximately 10 miles northwest of the Project Area.

The USDA-Natural Resource Conservation Service (NRCS) and Farm Service Agency (FSA) administer a number of conservation-based programs for private landowners. The Conservation Reserve Program (CRP) conserves soil and water resources and provides wildlife habitat by removing enrolled tracts from agricultural production, generally for a period of 10 years. The NRCS administers a number of conservation-based programs for private landowners. These tracts cannot be hayed, tilled, seeded, or otherwise disturbed without the authorization of the NRCS.

According to the FSA, there are a total of 3,131 acres of land currently enrolled in CRP comprised of seven different land owners in the Project Area.

3.6.2 Potential Impacts of the Proposed Project

Land use impacts would pertain to physical and operational effects of the Proposed Action on existing and future land use. In the Project Area, these impacts are primarily related to agricultural practices. A significant impact would occur if: 1) the Proposed Action resulted in the uncompensated loss of crop production; or 2) the Proposed Action resulted in the foreclosure of future land uses.

While the final site layout has not yet been determined, it is anticipated that the Project will include 64 wind turbines, one substation, approximately 33 miles of underground collection line, and 16 miles of new access roads. Baldwin Wind is seeking to obtain an easement of approximately five acres for laydown and contractor staging areas, which will be temporarily affected during the construction phase of the Project. Impact calculations are based on the following assumptions:

- 64 turbine pads: 250-foot radius each of permanent impact
- Service roads and access roads, and expanded access roads: 32 feet wide permanent impact
- Underground electrical collection lines: 8 feet wide temporary impact
- Substation, access road shoulders and turnarounds, service road shoulders and turnarounds: permanent impacts equal to the exact area portrayed in Project layout
- Construction laydown area: five acres of temporary impact

It is estimated that the proposed Project would require the permanent disturbance of 325 acres and the temporary disturbance of 1,142 acres (construction easement area). Note that the full 32-foot width of impacts was assumed for access roads, even where existing roads are only being expanded, so actual impacts are likely to be much smaller.

Approximately 1,467 acres (6.9 percent of the total Project Area) would be disturbed during the construction of the Project. The area will retain the rural sense and remote characteristics of the vicinity. At the wind energy facilities immediately north of the Project, as well as other wind developments in the upper Midwest, landowners frequently plant crops and/or graze livestock to the edge of the access roads and turbine pads. The access roads will be 32 feet wide and low profile, so they are easily crossed while farming. Baldwin Wind will work closely with landowners in locating access roads to minimize land use disruptions to the extent possible. Consideration will be taken in locating access roads to minimize impact on current or future row crop agriculture and environmentally sensitive areas. During the construction of the wind power facilities, additional areas may be temporarily disturbed for contractor staging areas and underground power lines. These areas will be graded to original contour and, if necessary, reseeded with appropriate vegetation. The development of the Project will not result in a significant change in land use.

If Project facilities are proposed for parcel enrolled in CRP, landowners will consult with the FSA to determine whether the parcel must be removed from the program and if reimbursement is necessary.

3.7 Socioeconomics and Environmental Justice

The socioeconomic and environmental justice analysis focuses on Burleigh County.

3.7.1 Socioeconomics

The proposed Project is located in Burleigh County, North Dakota, a primarily rural agricultural area located east of U.S. Highway 83 and north of Interstate 94 approximately 15 miles north of Bismarck, North Dakota. There is no indication of any new residential construction on the site. In 2008, the US Census Bureau (2008) estimated the county population at 77,194, an increase of 11 percent from the 2000 Census count of 69,416. Bismarck is the second most populous city in the state after Fargo. The population of Bismarck according to the 2000 Census was 55,532, but the 2008 population estimate was 104,944 (U.S. Census Bureau 2000).

The county contains 1,633 square miles of land, with a density of just over 48 persons per square mile. Approximately 93 percent of the population is composed of white persons who are not of Hispanic or Latino origin. The median age of Burleigh County residents is 36.3 years.

Approximately 13 percent of the county population is 65 years or older while only six percent of the population is under five years of age (US Census Bureau 2008).

There are several small cities and one unincorporated town near the Project Area. Wilton (2000 population 807) is located adjacent to the northern portion of the project; Regan (2000 population 43) is located approximately five miles to the north of the Project; and Wing (population 124, is located approximately seven miles to the northeast. The unincorporated town of Baldwin is located approximately two miles to the southwest; census data was not available for Baldwin.

The economy of Burleigh County is primarily tied to government jobs in Bismarck. According to the 2000 Census, almost a quarter of the workforce worked in education, health, and social services, and almost another ten percent in public administration. Retail trade accounts for over 13 percent of the jobs in the county. Per capita income in 1999 was $20,436; median household income was $41,309. Approximately 7.8 percent of the population lived below the poverty level, compared to 12.4 percent nationwide.

Agriculture continues to play a significant role in the county's land use and economy. In 2007, there were 1,026 farms in Burleigh County, comprising approximately 84 percent of the land area. According to the 2007 Census of Agriculture (USDA 2007), total market value of agricultural products produced in Burleigh County was $82,236,000, 62 percent of which was from crops and 38 percent from livestock sales. The primary livestock is cattle and the principal crops include wheat and forage. Sunflowers, corn, and barley are also grown.

3.7.2 Environmental Justice

The goal of environmental justice is to ensure the fair treatment and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of potentially adverse human health and environmental effects of a federal agency action, operation, or program. Meaningful involvement means that affected populations have the opportunity to participate in the decision process and their concerns are considered.

Executive Order (E.O.) 12898 was signed by President Clinton in 1994 and orders federal agencies to identify and address "disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States" (EPA 1994).

The analysis of potential environmental justice issues associated with the proposed Project followed guidelines described in the CEQ's Environmental Justice Guidance under the National Environmental Policy Act (CEQ 1997). The analysis method has three parts: (1) the geographic distribution of low-income and minority populations in the affected area is described; (2) an assessment of whether the impacts of construction and operation of the Project would produce impacts that are high and adverse is conducted; and (3) if impacts are high and adverse, a determination is made as to whether these impacts would disproportionately impact low-income or minority populations.

A description of the geographic distribution of low-income and minority population groups was based on demographic data from the 2000 Census. According to the guidance (CEQ 1997), low-income populations in an affected area should be identified with poverty thresholds from the Census Bureau. The Block Group in which the Project Area is located was chosen as the environmental justice analysis area, because most of the impacts (e.g., land use, noise, and visual) would be felt there, and economic data is not available at the block level. The Project Area is located in Block Groups 1 and 2 of Tract 115 in Burleigh County. Block Group 2 includes the area bounded by the Missouri River to the west, State Highway 14/314th Street NE to the east, State Highway 36/305th Avenue NE to the north, and 162nd Avenue NE to the south; Block Group 1 includes the rest of Burleigh County. The county as a whole and the state of North Dakota were selected as comparison areas. According to the 2000 Census, 10.9 and 20.6 percent, respectively, of the population in Block Groups 1 and 2 was below the poverty level, compared to 7.8 percent of the Burleigh County population and 11.9 percent of the state population (**Table 5**).

Table 5.
Minority and Low-Income Populations, Census 2000

Location	Total Population	Percent Minority	Percent Below Poverty
Block Group 1 in Tract 115	879	1.9	20.6
Block Group 2 in Tract 115	601	2.8	10.9
Burleigh County	69,416	5.4	7.8
State of North Dakota	642,200	8.3	11.9

Source: U.S. Census Bureau, Census 2000, Summary File 1, Table P4 and Summary File 3, Table P87.

Minority is defined as individual(s) who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. The CEQ guidance states that minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. For this analysis, the number of white alone, not Hispanic individuals in the analysis area was subtracted from the total population for the minority population, since the Census also includes the Native Hawaiian and Pacific Islander, Other, and Two or more races categories. The minority population in 2000 in the analysis area was 1.9 and 2.8 percent, respectively, compared to 5.4 percent for Burleigh County and 8.3 percent in the state (**Table 5**).

3.7.3 Potential Impacts of the Proposed Project

Significant socioeconomic impacts would occur if the Proposed Action resulted in the degradation or commitment of existing goods and services to an extent that would limit the sustainability of existing communities. With regard to EO 12898, an impact would be considered significant if a low-income, minority, or subsistence population in the region of the Proposed Action was disproportionately affected by the Proposed Action.

A recent case study evaluated the socioeconomic impacts of a wind energy facility constructed in 2007 and 2008 in Cavalier County, northeastern North Dakota (Leistritz and Coon 2009). The study authors felt that the project area was typical of Great Plains communities where many similar wind energy projects are being constructed. Leistritz and Coon (2009) found that the

159-MW project resulted in a peak workforce of 269 workers during construction, 10 permanent jobs, and $1.4 million in annual expenditures to local businesses and households. This includes payments to landowners totaling $413,000 the first year, annual local property taxes to the County and school district, and direct payments for wages and materials in Cavalier County and adjacent counties. **Table 6** summarizes the economic impacts from the construction and operation of the project.

Table 6.
Economic Impacts of Wind Project in Cavalier County, ND

Impact	Construction (one-time) in Millions of Dollars	Operation (annual) in Millions of Dollars
Direct	$56.4	$1.4
Secondary (indirect and induced)	$169.3	$3.0
Total	$225.7	$4.4

During construction, temporary housing in Cavalier County was full, and local service businesses (hotels, restaurants, etc.) experienced a short-term increase. An increase in traffic on local roadways during shift changes was noticeable. There were little or no impacts to public services, as only five percent of the construction workers brought their families, and most of the long-term jobs were filled locally. There were no added costs to the County, school district, or state. The increase in property taxes to the school district and the County were largely due to payments from the project, but also due to an anticipated increase in residential and property values (Leistriz and Coon 2009).

On a per-megawatt basis, the project's economic impacts were: $8,900 in local expenditures during construction; $2,600 per year in landowner payments; and $2,900 per year in property taxes. Project-specific impacts would vary based on the local availability of materials, services, and labor.

At other wind farms, the public has expressed concerns over potential devaluation of property in and adjacent to proposed wind projects. A study published in October 2002, "Economic Impacts of Wind Power in Kittitas County, Final Report," conducted by Dr. Stephen Grover of ECONorthwest of Portland, OR, summarized survey results as follows:

> "Views of wind turbines will not negatively impact property values. Based on a nationwide survey conducted of tax assessors in other areas with wind power projects, we found no evidence supporting the claim that views of wind farms decrease property values" (Grover 2002, p.2).

More recently, the Lawrence Berkeley National Laboratory conducted a three-year study on the impact of wind power projects on residential property values in the U.S. While the full report has not yet been publicly released, one of the study's author's has presented preliminary results (Hoen and Wiser 2009). The study included literature review, data collection for residential sales transactions at multiple study areas, visit to each home to measure turbine visibility and quality of scenic vista, use of multiple statistical models. The study concluded that:

- There was no statistical evidence that homes sold after announcement or construction of wind facilities have reduced property values;

- There was no statistical difference in sales price between homes with a view of wind turbines and homes without such views; and
- There was no statistical difference in sales price between homes within one mile of wind turbines and homes outside of 5 miles or that had been sold prior to facility announcement.

The proposed Project would have positive economic impacts for the local population, including lease and royalty payments for participating landowners, employment, and property and sales tax revenue. Up to 325 acres (1.5 percent) of the total Project Area will be permanently affected due to conversion to turbine sites, access and service roads, and substation. Landowner compensation will be established by individual lease agreements, but are anticipated to total over $600,000 annually. Annual property tax payments to local entities are estimated at $200,000. In general, agricultural areas surrounding each turbine can still be farmed. In addition, in an environment of uncertain and often declining agricultural prices and yields, the supplemental income provided to farmers from wind energy leases will provide stability to farm incomes and thus will help assure the continued viability of farming in the Project Area.

The proposed Project is expected to create at least five full-time permanent jobs and up to 125 peak construction jobs. To the extent that local contractors are used for portions of the construction, total wages and salaries paid to contractors and workers in Burleigh County will contribute to the total personal income of the region. Additional personal income will be generated for residents in the county as well as the state by circulation and recirculation of dollars paid out by the Baldwin Wind as business expenditures and state and local taxes. Expenditures made for equipment, energy, fuel, operating supplies and other products and services will benefit businesses in the county.

It is likely that general skilled labor is available in Burleigh County to serve the basic infrastructure and site development needs of the Project. Specialized labor will be required for certain components of wind farm development. It is likely that this labor will be imported from other areas of the state or from other states, as the relatively short duration of construction does not warrant special training of local or regional labor.

No effects on permanent housing are anticipated. During construction, out-of-town laborers will likely use lodging facilities in and around Burleigh County. Operation and maintenance of the facility will require few laborers. Sufficient permanent housing is available within the county to accommodate these laborers.

Local businesses such as motels, restaurants, bars, gas stations, and grocery stores would likely experience some increase in revenue resulting from new employment of the non-resident portion of Project construction crews. In particular, the consumption of goods, services, and temporary lodging in and near Bismarck, Wilton, and surrounding cities could be expected to minimally increase due to the presence of these non-native workers. Other local area businesses that may benefit through increased sales would likely include ready-mix concrete and gravel suppliers, hardware and general merchandise stores, welding and machine shops, packaging and postal services, and heavy equipment repair and maintenance services.

This relatively small increase in demand for local goods and services would be minimal due to the small size of the non-local workforce and the short-term nature of the construction phase of

the Proposed Action. For the same reasons, the effects to infrastructure such as schools, hospitals, housing, and utilities would also be minimal.

While the Proposed Action will be capable of generating electricity to power over 24,000 homes in the region, it will not produce significant air or water pollution, will have minimal water use, and will allow most of the land in the Project Area to remain in agricultural use.

With regard to environmental justice, there is no indication that any minority or low-income population is concentrated in any one area of the Project Area, or that the wind turbines will be placed in an area occupied primarily by any minority group. Although the Project Area block groups have a higher percentage of persons below the poverty level compared to the county, the Project would have positive economic impacts. Additionally, the Project impacts do not appear to be high and adverse, and therefore no determination was made regarding whether the low-income and minority populations would be disproportionately affected by the Project. The Proposed Action will not have significant socioeconomic impacts.

3.8 Visual Resources

This section evaluates the existing visual setting in the vicinity of the Proposed Action. The analysis of the visual study area included areas within and adjacent to the Project Area from which a person may be able to observe changes to the visual landscape resulting from development of the Proposed Action.

Scenic quality is determined by evaluating the overall character and diversity of landform, vegetation, color, water, and cultural or manmade features in a landscape. Typically, more complex or diverse landscapes have higher scenic quality than those landscapes with less complex or diverse landscape features.

Visual sensitivity is dependent on viewer attitudes, the types of activities in which people are engaged when viewing the site, and the distance from which the site will be seen. Overall, higher degrees of visual sensitivity are correlated with areas where people live, are engaged in recreational outdoor pursuits, or participate in scenic or pleasure driving.

3.8.1 Existing Conditions

The visual setting of the proposed Project Area consists primarily of agricultural land. The Project Area lies in a rural location with farming, livestock grazing, and related agricultural operations dominating land use. There is an existing wind energy facility between the two portions of the Project Area. The visual resources of the area are neither unique to the region nor entirely natural.

Structure and color features in the visual region of influence include those associated with wetlands, cultivated cropland, pasture, forested shelterbelt, and additional human-caused features described above. Colors vary seasonally and include green crop and pasture land during spring and early summer, green to brown crops and pasture during late summer and fall, brown and black associated with fallow farm fields year round, and white and brown associated with late fall and winter periods.

Key observation points (KOPs) are viewing locations that represent the location of the anticipated concentration of sensitive viewers (or the highest incidence of sensitive viewers)

near the Proposed Action. KOPs for the Proposed Action include roadways such as: U.S. Highway 83 (located west of the Project Area), State Highway 36/305th Ave NE (located north of the Project Area), 106th Street NE (located east of the Project Area), 201st Avenue NE (located south of the Project Area), and occupied residences within the Project Area.

Currently, no distinctive landscape features exist in the Project Area that would require specific protection from visual impairment. Existing views are primarily agricultural activity, undeveloped land, existing wind farm facilities, and vehicles traveling on U.S. Highway 83; State Highway 36, and low-traffic gravel roads such as 201st Avenue. The principle viewers include the 46 occupied residences in the Project Area, as well as travelers on the aforementioned roadways.

North Dakota Highways 1804 and 1806, on the east and west side, respectively, of the Missouri River, are designated Lewis and Clark auto tour routes. The route is a network of roads that generally tracks the Lewis and Clark National Historic Trail and provides vistas as well as historic markers. The closest point along the route is located over six miles west of the Project Area. The National Park Service (NPS) has expressed concern regarding potential impacts to the natural, cultural, recreational, and scenic values of the Trail, as well as the cumulative visual impacts from multiple wind energy facilities in the area (**Appendix C**).

3.8.2 Potential Impacts of the Proposed Project

Significant impacts to visual resources would occur if the Proposed Action interrupts a unique viewshed from a KOP. Wind turbines, access roads, and a substation would result in changes to some public views. The uppermost portion of the turbine blades would reach almost 400 feet above ground surface and would be visible for up to several miles, changing the visual character of the area from agricultural to quasi-industrial. Some of these structures would likely be visible from all of the identified KOPs. Some of the turbines would require strobe lights for aircraft safety, potentially changing the view from KOPs at night. Visual effects would decrease as the distance from the Wind Energy Center increases.

Significant impacts to visual resources are not anticipated. Impacts on visual resources within the Project Area were determined by considering the post-construction views from the KOPs, as discussed above. The Project Area does not contain any highly distinctive or important landscape features or unique viewsheds. In addition, there are no visual quality standards in place within Burleigh County.

In the vicinity of the Project, the Lewis and Clark National Historic Trail auto route corresponds with ND Routes 1804, on the east side of the Missouri River, and ND Route 1806, on the west side of the Missouri River. At its closest, ND Route 1804 is more than six miles from the nearest project element; ND Route 1806 is located even further from the Project. Three KOPs along the Trail were chosen for photo simulations to demonstrate the potential impact of the Project and the existing wind farms in the area. A computer model and photo simulations were used to evaluate the potential impact of the Project on the Trail. While the Project and other existing wind farms in the area will be visible from points along the Trail, the addition of these elements, at distances of six miles and greater, into the already modern landscape will not diminish a visitor's experience of the Trail. The visual impacts on the Trail and on historic resources within one mile of the Project Area are discussed further in Section 3.12.

Shadow Flicker

A wind turbine's moving blades can cast a moving shadow on locations within a certain distance of a turbine. These moving shadows are called shadow flicker, and can be a temporary phenomena experienced by people at nearby residences or public gathering places. The impact area depends on the time of year and day (which determines the sun's azimuth and altitude angles) and the wind turbine's physical characteristics (height, rotor diameter, blade width, and orientation of the rotor blades). Shadow flicker generally occurs during low angle sunlight conditions, typical during sunrise and sunset times of the day.

Shadow flicker intensity for receptor-to-turbine distances beyond 1,500 meters is very low and generally considered imperceptible. Shadow flicker intensity for receptor-to-turbine distances between 1,000 and 1,500 meters (between 3,281 and 4,921 feet) is also low and considered barely noticeable. At this distance shadow flicker intensity would only tend to be noticed under conditions that would enhance the intensity difference, such as observing from a dark room with a single window directly facing the turbine casting the shadow.

The Epilepsy Action (working name for the British Epilepsy Foundation), states that there is no evidence that wind turbines can cause seizures (Epilepsy Action 2008). However, they recommend that wind turbine flicker frequency be limited to 3 Hz. Since the proposed Project's wind turbine blade pass frequency is approximately 0.9 Hz (less than 1 alternation per second), no negative health effects to individuals with photosensitive epilepsy are anticipated.

Shadow flicker impacts are not regulated in applicable state or federal law, and there is no permitting trigger with regard to hours per year of anticipated impacts to a receptor from a wind energy project. Due to the significant growth of the wind energy industry in recent years, some states have published model bylaws for local governments to adopt or modify at their own discretion which sometimes includes guidance and recommendations for shadow flicker levels and mitigation. However, a general precedent has been established in the industry both abroad and in the United States that fewer than 30 hours per year of shadow flicker impacts is acceptable to receptors in terms of nuisance and well below health hazard thresholds. In German court case for example, a judge found 30 hours of actual shadow flicker per year at a certain neighbor's property to be tolerable (WindPower 2003).

A shadow flicker analysis was conducted for the proposed Project (Tetra Tech 2009d). Since the Project is using a minimum turbine siting setback requirement of 1,400 feet (from occupied residences), sensitive receptors (occupied residences) are generally not located in the worst case potential shadow flicker impact zones, which ensures that shadow flicker impacts are minimized. In Crofte Township, turbines must be at least 1,750 feet from non-participating residences.

A total of 134 sensitive receptor locations (including 94 occupied residences) were identified in the vicinity of the Project Area. Nine of the 134 receptors modeled had expected shadow flicker impacts predicted for more than 30 hours per year; two of these receptors are occupied residences, while the others include two cemeteries, vacant residences, and other structures. The maximum predicted shadow flicker impact at any active receptor is 45 hours, 17 minutes per year, which is approximately 1.0 percent of the potential available daylight hours. The analysis of potential shadow flicker impacts from the Project on nearby residences (receptors)

shows that shadow flicker impacts within the area of study are not expected to be significant. The analysis assumes that the houses all have a direct in line view of the incoming shadow flicker sunlight and does not account for trees or other obstructions which may block sunlight.

The potential effects of shadow flicker on wildlife are unknown. Anecdotal evidence suggests that birds may perceive passing turbine shadows as the shadows of avian predators passing overhead but these conclusions are limited by the presence of confounding variables.

3.9 Noise

The evaluation of noise was limited to potential receptors within one mile (5,280 feet) of the proposed turbine locations.

Burleigh County does not currently have noise standards or ordinances that are applicable to the Project. At the state level, the North Dakota Administrative Code (Article 69-06-08, Section 3) requires that the potential for adverse impacts at noise sensitive receptors be assessed during the site selection process; there are no numerical decibel limits, however, or explicit definitions of the locations of compliance given either by the North Dakota PSC or any other agency at the state level. Baldwin Wind will employ appropriate environmental noise criteria such as the guidelines provided by the U.S. Environmental Protection Agency (EPA).

The National Safety Council (NSC) recommends no more than 85 dBA for 8 hours of exposure as the safe limit for farm operations. Industrial standards of the Occupational Safety and Health Administration (OSHA) regulations would apply to those involved in the construction, operation, and maintenance of the facilities. OSHA permissible noise exposures are shown in **Table 7**.

Table 7.
OSHA Permissible Noise Standards

Duration (number of hours per day)	Sound Level (dBA)
8.0	90
6.0	92
4.0	95
3.0	97
2.0	100
1.5	102
1.0	105
0.75	110
0.5	115

3.9.1 Existing Conditions

Noise is generally defined as unwanted or excessive sound. Some land uses are considered more sensitive to intrusive noise than others due to the type of activities typically involved at the receptor location. Specifically, sensitive human noise receptors normally include residences, schools, libraries, religious institutions, hospitals and nursing homes, daycare centers, and other businesses in or near the Project Area.

The Project Area is located in a rural, predominantly agricultural area, with some existing wind turbines. As a result, sources of background noise to rural residents and occasional visitors to the area include: wind, agricultural activity, recreation (primarily hunting), and vehicles traveling on U.S. Highway 83; State Highway 36, and low-traffic gravel roads such as 266th Avenue, 52nd Street, 93rd Street, and 132nd Street. Typical baseline noise levels in the Project Area likely range from approximately 38 average day-night sound levels measured in A-weighted decibels (dBA) to 48 dBA (EPA 1978). Potential noise receptors in the vicinity of proposed facilities include scattered rural residences, the closest of which is approximately 1,640 feet from one of the proposed turbine locations.

Burleigh County would generally be characterized as a rural agricultural land use area, and existing ambient sound levels are expected to be relatively low, although sound levels may be sporadically elevated in localized areas due to roadway noise or periods of human activity. Background sound levels will vary both spatially and temporally depending on proximity to area sound sources, roadways and natural sounds. Principal contributors to the existing acoustic environment likely include motor vehicle traffic, mobile farming equipment, farming activities such as plowing and irrigation, all-terrain vehicles, local roadways, rail movements, periodic aircraft flyovers, and natural sounds such as birds, insects, and leaf or vegetation rustle during elevated wind conditions in areas with established tree stands or established crops. Diurnal effects result in sound levels that are typically quieter during the night than during the daytime, except during periods when evening and nighttime insect noise dominates in warmer seasons.

In areas with elevated background sound levels, sound may be obscured through a mechanism referred to as acoustic masking. Seasonal effects such as cricket chirping, certain farming activities, as well as wind-generated ambient noise as airflow interacts with foliage and cropland, contribute to this masking effect. The latter is most prevalent in rural and suburban areas with established tree stands. Wintertime defoliate conditions typically have lower background sound levels due to lower wind masking effects and reduced outdoor activities in colder climates. During colder seasons, people typically exhibit lower sensitivities to outdoor sound levels, particularly in this geographical region of the United States, as windows are closed, further enhancing outdoor to indoor transmission losses, and limited time is spent outdoors as compared to more temperate climates.

3.9.2 Potential Impacts of the Proposed Project

Significant impacts would occur if the Proposed Action results in noise levels in exceedance of national standards. An engineering analysis was developed to address sound levels resulting from wind turbine operations, as well as the consideration of sound from the electrical substation and sound generated during Project construction and maintenance activities (Tetra Tech 2009e). The 55 dBA day-night sound level ($L_{dn(24\text{-hours})}$) EPA noise criterion applicable to outdoor locations at noise sensitive receptors where extended periods of time are spent, residential structures and areas in proximity to residential structures (i.e., yards) was used in the analysis. An L_{dn} of 55 dBA corresponds to a maximum instantaneous equivalent sound level (L_{eq}) of 48.6 dBA.

A total of 134 potential noise receptors were included in the analysis, although several receptors were found to be unoccupied or not currently used for residential purposes (e.g., cemetery).

To review potential cumulative effects, the acoustic assessment included the proposed facility and the existing Wilton I and II Wind Energy Center turbines that are located in the central portion of the Project Area.

Acoustic modeling results show that at maximum rotational operation, one out of 94 occupied residences would reach the EPA noise criterion, and would exceed it at maximum rotational operation under anomalous meteorological conditions. Other receptors that exceeded the EPA guideline are not currently occupied residences, and included a camper that will be re-located, two cemeteries, vacant residences and other non-residential structures.

As discussed, the modeled exceedance is based on anomalous meteorological conditions (worst case scenario). Baldwin Wind is considering some facility modification or mitigation to reduce Project-related noise impacts at this residence. Baldwin Wind will continue to coordinate with the affected landowner in an attempt to minimize or mitigate this impact. In addition, Baldwin Wind will conduct post-construction field verification if requested and will determine whether mitigation is necessary.

The construction of the Project may cause short-term but unavoidable noise impacts. The sound levels resulting from construction activities vary significantly depending on several factors such as the type and age of equipment, the specific equipment manufacturer and model, the operations being performed, and the overall condition of the equipment and exhaust system mufflers. Sounds generated by construction activities are typically exempt from state and local noise oversight provided that they occur within weekday, daytime periods as may be specified under local zoning or legal codes. All reasonable efforts will be made to minimize the impact of noise resulting from construction activities.

Construction activity will generate traffic having potential noise effects, such as trucks travelling to and from the site on public roads. At the early stage of the construction phase, equipment and materials will be delivered to the site, such as hydraulic excavators and associated spreading and compacting equipment needed to form access roads and foundation platforms for each turbine. Once the access roads are constructed, equipment for lifting the towers and turbine components will arrive. Traffic noise is categorized into two categories: (1) the noise that will occur during the initial temporary traffic movements related to turbine delivery, haulage of components and remaining construction; and (2) maintenance and ongoing traffic from staff and contractors, which is expected to be minor. No significant impacts are anticipated.

Research into the effects of noise on wildlife has generally focused on very loud, intermittent disturbance (e.g., aircraft fly-overs or weapons testing). Although it is likely that construction activity will result is short-term disturbance of wildlife, it will be difficult to assess whether the disturbance comes from the noise of construction activities or the activities themselves (e.g., construction vehicles moving along roads). As the activity is short-term, the impacts are also expected to be short-term. What is less clear is the potential disturbance resulting from long-term exposure to low-frequency noise, as will be experienced by terrestrial wildlife in the vicinity of an operational wind energy facility. Available evidence suggests that animals either habituate to consistent low-frequency noise disturbances or can alter their behaviors to adapt to the new acoustic environment (e.g., Rabin et al. 2003, Brumm and Slabbekoorn 2005, Wood and Yezerinac 2006)

3.10 Transportation

The analysis area for transportation impacts is the area delineated by roadways adjacent to the Project Area. These roadways have been identified as: U.S. Highway 83 (located west of the Project Area), State Highway 36 (located in the central portion of the Project Area), 201st Avenue (located south of the Project Area), and 106th Street (located east of the Project Area).

3.10.1 Existing Conditions

The turbine array is located east of U.S. Highway 83 and both north and south of State Highway 36. U.S. Highway 83 has a junction with Interstate 94 approximately ten miles south of the Project Area. The road located south of the Project Area (162nd Avenue) has a gravel surface and is not a major collector. Several roads lie within the Project Area. All of these roads have gravel surfaces and receive a low volume of traffic. Motor vehicle traffic along the majority of roads within the vicinity of the Project Area is considered light, with low speed and low volume. Existing traffic volumes on the area's major roadways are documented in **Table 8**. No vehicle count data are available for the county and township roadways in the Project Area.

Table 8.
Existing Daily Traffic Levels

Roadway Segment	Existing Average Annual Daily Traffic (AADT)/Commercial Truck Traffic
US 83 in Wilton	4,900/560
US 83 south of Wilton	6,300/760
SH 36 east of Wilton	500/60

Source: 2007 Traffic Volumes (NDDOT, 2007).

3.10.2 Potential Impacts of the Proposed Project

Significant impacts would occur if: 1) the Proposed Action resulted in the permanent disruption of regional and local traffic; or 2) the Proposed Action results in the destruction of existing transportation infrastructure.

Construction of the Proposed Action would increase traffic on local roads to the Project Area, possibly causing temporary impacts to local traffic flow while equipment is hauled to the site. There are several roads adjacent to the Project Area in which construction-related traffic would be concentrated. Construction-related vehicles would use State Highway 36, as they access the Project Area off of U.S. Highway 83. The construction company hired to build the Project would obtain any necessary permits for transporting equipment.

Construction activities associated with the Proposed Action would use the existing section line roads whenever possible. The Proposed Action would include approximately 16 miles of access roads associated with the turbines. These roads would be constructed to assist with access and maintenance of the proposed facilities.

Operation of the Project is not expected to result in any significant traffic issues on the area highways or state roads because there would be only a minor increase in traffic (only a few vehicles per day). In addition, the necessary permits will be obtained and safety protocols will be implemented.

3.11 Safety and Health Issues

There are many different topics covered under safety and health, and the analysis area varies. For air traffic safety, the analysis area is six nautical miles. Separate studies were conducted for federal and non-federal telecommunication interference. For electromagnetic fields and hazardous materials, the analysis area is the Project Area (**Figure 2**).

3.11.1 Existing Conditions

Air Traffic

There are two private airports and no public airports within six nautical miles of the Project Area. Nautical miles are the standard measure for aviation; one nautical mile is equal to 1.15 statute miles. The Spitzer Airport, FAA ID ND80, is located three nautical miles northeast of Baldwin in or near the Project Area. It is privately owned and permission is required prior to landing. There is no control tower. The Soderquist Airport, FAA ID 2NA0, is located six nautical miles north of Wilton. It is also privately owned, with no control tower, and permission is required prior to landing (Airnav 2009). The nearest airport certified for commercial carrier operations is the Bismarck Municipal Airport (FAA ID BIS), located three miles southeast of Bismarck and approximately 15 miles south of the Project Area.

Telecommunication Interference

Wind turbines can cause loss of detection, false alarms, and corrupt data for primary and weather surveillance radar. This is a concern for air traffic control, the Department of Defense (DOD), Department of Homeland Security (DHS), Federal Aviation Administration (FAA), and for weather radar. The potential impacts to NEXRAD (next generation weather radar) area are greatest within 10 nautical miles of a radar unit. Non-federal beam paths (such as for commercial radio stations) can also be impacted.

Electromagnetic Fields

The term electromagnetic fields (EMF) refers to electric and magnetic fields that are present around any electrical device. Electric fields arise from voltage, or electrical charges, and magnetic fields arise from current, or the flow of electricity that travels along transmission lines, power collection lines, substation transformers, house wiring, and electrical appliances. The intensity of the electric field is related to the voltage of the line, and the intensity of the magnetic field is related to the current flow through the conductors (wire). EMF can occur indoors and outdoors. However, there are no known discernible health impacts from power lines. Turbines and collector lines will be no closer than 1,400 feet to occupied residences, where EMF will be at background levels.

Hazardous Materials / Hazardous Waste

The Project Area is located in a relatively rural area of North Dakota. Hazardous wastes from large industrial or commercial activities are not likely. Potential hazards may exist in rural areas from old gasoline facilities, landfill sites, and private activities.

Potentially hazardous materials associated with the Project include fluids found in association with turbines and substation/transformer equipment. There will be three types of fluids used in the operation of the wind turbines, all of which are petroleum products. These fluids are

necessary for the operation of each turbine and include gear box oil, hydraulic fluid, and gear grease. The transformers contain mineral oil.

Sabotage and Terrorism

Unauthorized or illegal access to site facilities and the potential for members of the public to attempt to climb towers, open electrical panels, or encounter other hazards may be a concern. The section below evaluates the potential for sabotage and terrorism-related impacts (also referred to as Intentional Destructive Acts).

3.11.2 Potential Impacts of the Proposed Project

For the purpose of this analysis, a significant impact to public safety and health would occur if: 1) the Proposed Action resulted in an increase in personal injuries; 2) the Proposed Action resulted in an increase in health risk to area residents; 3) the Proposed Action resulted in impacts to public health as a result of increased electric and magnetic fields; or 4) the Proposed Action resulted in a violation of federal, state, or local regulations regarding handling, transport, or containment of hazardous materials.

Air Traffic

The installation of wind turbines creates a potential for impacts to air traffic. However, no new transmission lines will be constructed as part of the Project, and the wind turbines and meteorological towers themselves will be visible from a distance. The FAA has reviewed the proposed turbine locations and provided a “no hazard” determination for all the turbines. The wind turbines and meteorological towers will have lighting and markings that comply with FAA requirements. Per FAA, all turbines will be painted white and 34 of the 64 turbines will have red synchronized lights. Due to minimal air traffic, generally good visibility, and lighting, etc., no impact to air traffic is anticipated.

Telecommunication Interference

The National Telecommunications and Information Administration (NTIA) was contacted regarding the proposed Project. After a 45 day period of review, only the Department of Commerce (DOC) identified concerns regarding blockage of their radio frequency transmissions. The proposed Project will be in the radar line of sight of the Bismarck, ND Weather Surveillance Radar-1988 Doppler (WSR-88D) and has a low risk of impacting radar data; no further analysis or follow-up was requested (Ciardi pers. comm. 2010).

A beam path study was conducted to identify all non-federal microwave telecommunication systems, as well as AM, FM, cellular, and television tower locations. The worst-case Fresnel zones (WCFZ) for each beam path were calculated. The study identified several beam paths crossing the Project Area that could be affected by two turbines. A more detailed examination of the beam path data indicates that the turbines would not impact the beam paths (Savage pers. comm. 2010). With the switch to digital television in 2009 throughout the United States, the concern of ghost images and flickering that may be caused by wind turbine interference with analogue signals are no longer an issue.

Electromagnetic Fields

While the general consensus is that electric fields pose no risk to humans, the question of whether exposure to magnetic fields can cause biological responses or health effects continues to be the subject of research and debate. Based on the most current research on electromagnetic fields, and the distance between any turbines or collector lines and houses, the Project will have no impact to public health and safety due to EMF (National Institute of Environmental Health Sciences 1999).

Hazardous Materials / Hazardous Waste

Significant findings that may pose a threat to human health and safety and the environment are not anticipated due to the known historic uses of the property and the small amount of hydrocarbons stored at each turbine. There is the potential for oil or grease to leak from the turbine and spill onto the surrounding area underneath. There is also the potential for hazardous materials or hazardous waste to be generated during decommissioning, but no significant impacts to the environment are anticipated.

Sabotage and Terrorism

Security measures will be taken during construction and operation, including temporary and permanent (safety) fencing at the substation, and warning signs and locks on equipment and wind power facilities. Also, turbines will sit on solid-steel-enclosed tubular towers in which all electrical equipment would be located, except for the pad-mounted transformer. Access to the turbines will only be through a solid steel door that will be locked when not in use. These measures will also act to reduce potential sabotage and terrorism-related impacts. Western believes that the Project presents an unlikely target for an act of terrorism, with an extremely low probability of attack. The potential for the Project to be targeted in terrorism-related activity will be negligible. Access is strictly controlled to all facilities, including turbines and the substation. The substation will be controlled by key entry and the turbines are controlled by key and lock. These measures would limit access and deter intruders.

3.12 Cultural Resources

Cultural resources include archeological sites, historic standing structures, objects, districts, traditional cultural properties and other properties that illustrate important aspects of prehistory or history or have important and long-standing cultural associations with established communities or social groups. Significant archeological and architectural properties are usually defined by eligibility criteria for listing in the National Register of Historic Places (NRHP), and in consultation with the State Historic Preservation Office (SHPO).

3.12.1 Existing Conditions

Archaeology

A search of the State Historical Society of North Dakota's site and manuscript files was conducted for the Project Area and a one-mile buffer. The Class I file search revealed that 15 investigations have occurred in the area including three related to the existing wind farm adjacent to the Project. Other investigations included two bridge surveys and a historic coal mine district study. The search revealed 25 historic sites (primarily coal mines), 22 architectural

sites (including houses, churches and two railroads), and 10 archaeological sites within one mile of the Project.

The Class III pedestrian survey was conducted in October 2009 (Metcalf 2010a) and April 2010 (Metcalf 2010b). The majority of the inventoried areas lie in cultivated farm land. In October 2009, six prehistoric stone feature sites were documented, all in prairie land, and three prehistoric chipped stone isolated finds were documented in cultivated fields. Two architectural sites were also documented.

Five of the prehistoric sites (MAC-BWF-1 and MAC-BWF 6 through 9) consist of single rock cairns. Cairns are known to have served a variety of functions, including marking caches, marking trails and important locations, serving as burial caps, and other domestic and ceremonial purposes. Although the sites have not been evaluated for the National Register of Historic Places (NRHP), they may be properties "of traditional religious and cultural importance to an Indian tribe…and that meet(s) the National Register criteria" (36 CFR 800.16[l][1]).

Prehistoric site MAC-BWF-10 is a single stone circle. Stone circles are viewed by archaeologists as having a number of possible functions. They are most commonly viewed as having been used in the construction of tipis, but other less familiar, though significant, functions involve a variety of social/ceremonial activities. Some circles may be the remains of stone effigies and often still hold significance for contemporary Native American tribes. Although the site has not been evaluated for the NRHP, it may be a property "of traditional religious and cultural importance to an Indian tribe…and that meet(s) the National Register criteria" (36 CFR 800.16[l][1]).

In April 2010, 13 prehistoric sites were documented and one historic site was revisited and updated. The historic site is an abandoned rail road bed (32BL295) which was previously recorded by the University of North Dakota in 2008. While rail roads are considered potentially eligible for the National Register, this section of the line has been abandoned with the ties and rails removed, reducing integrity to the point that it probably is not eligible.

The prehistoric sites are with one exception stone feature sites, either stone circles, rock cairns, or a combination of both. One prehistoric site is a depression/pit that is largely lined with and surrounded by rocks. Sites MACGL-E1, MACGL-E4, MACGL-E5, MACGL-E6, MACGL-E8, MACGL-E9, and MACGL-4281 are stone circle sites. Sites MACGL-E11 and MACGL-4272A are cairn sites. Sites MACGL-E2, MACGL-E7 and MACGL-4291A are sites with a combination of circles and cairns. Site MACGL-E3 is a largely rock-lined pit. It is possibly an eagle trapping pit but may have been used for other ceremonial purposes.

The isolated finds in cultivated fields are recommended as not eligible for the National Register, and no avoidance or further investigation is recommended by Metcalf Archaeology at their locations (Metcalf 2010a and 2010b). The survey and addendum reports are being submitted by Western to SHPO for review.

Architectural Resources

A search of the State Historical Society of North Dakota's site and manuscript files was conducted for the Project's Historic Architecture Area of Potential Effect (APE), defined as the area within a mile of the nearest turbine. A Class II Cultural Resources Inventory, also known as

a reconnaissance or windshield survey, was conducted for the area within the APE, based on the April 26, 2010 Project layout (Tetra Tech 2010b).

Additional work was also undertaken outside of the APE in response to concerns raised by the NPS about the potential effect of the Project on the Lewis and Clark National Historic Trail (the Trail), as discussed above in Section 3.8. In the vicinity of the Project, the Trail corresponds with ND Routes 1804, on the east side of the Missouri River, and ND Route 1806, on the west side of the Missouri River. At its closest, ND Route 1804 is more than six miles from the nearest project element; ND Route 1806 is located even further from the Project. The trail on both sides of the river was driven from points directly west of the southern boundary of the APE to the northern-most point of Route 1806 (the trail is not continuous on the western side of the river in the Project Area) and the point directly west of the northern boundary of the APE. Three KOPs along the Trail were chosen for photo simulations to demonstrate the potential impact of the Project and the existing wind farms in the area.

The Trail follows the course of the river through a sparsely settled, hilly rural landscape. Along the way one sees various modern intrusions, including transmission and distribution lines, modern housing, and the roads themselves. One can also see elements of the Wilton I and Wilton II Wind Energy Centers as well as the Oliver Wind Energy Center. Views toward the existing wind farms and the proposed Project are both distant and intermittent, providing a background view along the horizon. In many areas the views are screened both by topography and by vegetation.

The Class I file search revealed that 15 investigations have occurred in the area, including three related to the Wilton I and Wilton II Wind Energy Centers which are located adjacent to the Project. Other investigations included two bridge surveys and a historic coal mine district study. The search revealed six historic architectural site leads and 17 historic architectural sites within the Project file search area (i.e. within a section at least part of which was within the APE). Only five of these sites – the former sites of two churches (Mission Evangelical (Free) Church and the Former Baldwin Presbyterian Church), a historic school (32-BL-654), a farmstead (32-BL-655), and a coal mine (Washburn Lignite Coal Mine) – are located within the APE. None of these sites has previously been listed in or officially determined eligible for the National Register of Historic Places (NRHP). The lack of a determination does not preclude a future listing or determination of eligibility for any of these properties, however, two of the resources have burned (Mission Evangelical (Free) Church and the Former Baldwin Presbyterian Church), a third was partially demolished at the time it was abandoned (Washburn Lignite Coal Mine), and two were recommended as not potentially NRHP-eligible by the consultants completing the site forms (32-BL-654 and 32-BL-655). It is unlikely that any of these sites will be listed in or determined eligible for the NRHP.

A Class II architectural survey, the goal of which was to identify buildings style-dated as 45 years old or older, was conducted in March and April 2010. The APE is a rural landscape of relatively flat, open fields with vernacular modern and historic farmsteads and buildings set back from the road (and often located behind planted shelterbelt), abandoned rural schools, and several cemeteries. Seventy-seven buildings or cemeteries within the APE were observed. Of those buildings and cemeteries, 35 were identified as meeting the age requirements to be considered historic. These resources were a mix of farmsteads or individual farm buildings, rural

schools, and cemeteries. None of these resources are recommended as meeting the criteria to be NRHP-eligible. The survey report is being submitted by Western to SHPO for review.

3.12.2 Potential Impacts of the Proposed Project

A significant impact to cultural resources would occur if a site or archaeological, tribal, or historical value that is listed, or is eligible for listing, in the NRHP could not be avoided or mitigated during siting or construction of the Proposed Action.

No significant impacts to cultural resources are anticipated from the Proposed Action. The addendum cultural resources inventory report and architectural survey report will be submitted once they are complete.

Archaeology

As currently designed, all 18 prehistoric stone feature sites and the prehistoric rock-lined pit feature site would be avoided by reroutes, turbine shifts, and fencing during construction. Provided that the prehistoric sites are fenced and avoided, a finding of No Historic Properties Affected has been recommended for the Project (Metcalf 2010). Construction and operation of the proposed Project would not directly impact these sites.

If historic or prehistoric materials are discovered during monitoring of earth-disturbance construction activities, construction would be halted and Western would be notified in order to initiate procedures outlined in 36 CFR Part 800. These procedures would include evaluating the find for eligibility and determining appropriate treatment with the SHPO and the North Dakota Intertribal Reinterment Committee (NDIRC).

Architectural Resources

An impact to significant architectural resources would occur if a site that is listed, or is eligible for listing, in the NRHP would be affected by the Proposed Action. Effects can be either direct, which involves physical harm to a listed or eligible resource, or indirect, which involves a change in the setting, feeling or associations related to a listed or eligible resource. There are no NRHP-listed or NRHP-eligible buildings, structures or objects within the APE. Therefore, there will be no impacts to significant historic resources within the APE.

A computer model and photo simulations were used to evaluate the potential impact of the Project on the Trail. Views to the west from the Trail will intermittently include the Oliver County Wind II Wind Energy Center; views to the east may intermittently include views of Wilton I, Wilton II and/or the proposed Project. At no time will the wind farms on both sides of the Trail be visible at the same time. While the Project and other existing wind farms in the area will be visible from points along the Trail, the addition of these elements, at distances of six miles and greater, into the already modern landscape will not diminish a visitor's experience of the Trail.

3.13 Native American Religious Concerns

The Native American Graves Protection and Repatriation Act of 1990 allows tribes to protect American Indian graves and to repatriate human remains. Baldwin Wind must comply with this act if a burial site is encountered during construction, as the aforementioned act applies to all developments regardless of the funding source. Any burial site identified, including tribal or

pioneer, must be referred to the North Dakota Intertribal Reinterment Committee and the State Historical Society of North Dakota. The North Dakota Indian Affairs Commission was invited to the scoping meeting and to provide comments; no response has been received to date.

3.13.1 Existing Conditions

Research of cultural resources indicates that Native Americans who inhabited the region throughout prehistoric times typified the culture of the North American Plains Indians. Subsistence was focused on hunting, gathering, and small-scale agriculture. As discussed in **Section 3.12**, a pedestrian archaeological survey identified 18 prehistoric stone features sites and three prehistoric chipped stone isolated finds within the Project APE. As currently designed, all 18 prehistoric stone feature sites would be avoided and fenced during construction and no impacts are anticipated.

3.13.2 Potential Impacts of the Proposed Project

A significant impact would occur if the Proposed Action caused an unmitigated, adverse effect to a traditional cultural property (TCP) or a burial site. In the event that burials or cultural sites with Native American religious values are identified during construction of the Proposed Action, work would halt within 200 feet of the site until Native Americans are notified and consulted about mitigation measures.

3.14 Cumulative Effects

The Council on Environmental Quality defines cumulative effects as:

> The impacts on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

The NEPA cumulative effects analysis is focused on defining the incremental effects of the proposed Project in context with the effects from:

- Past actions with relevance to the current resource conditions
- Present actions of relevance, but not part of the Proposed Action or action alternatives
- Reasonably foreseeable future actions of relevance, but not part of the Proposed Action or action alternatives

The effects of various past, present, or future actions (regardless of the entity pursuing the action) and natural processes have the potential to coincide either in time or space with the effects of the proposed Project.

Analysis Area

This cumulative analysis includes the past, present and reasonably foreseeable actions in Burleigh County.

Actions Included in Analysis

Outside of the city of Bismarck, development in Burleigh County has largely consisted of agriculture. Starting in the 1990's, however, there has been an increase in the new lots and new building permits issued in the City of Bismarck's extraterritorial area (ETA) and the rest of the county, rather than within city limits (City of Bismarck 2003). This trend appears to be continuing, particularly large-lot single-family residential subdivisions. As a result, both agricultural land and undeveloped areas such as grassland are being converted into residential use.

A list of reasonably foreseeable actions within Burleigh County was developed based on a search of projects listed on the PSC online case information and on information from the City of Bismarck Planning Department website. In addition to the Proposed Action and past development, other reasonably foreseeable actions that are included in this cumulative impact analysis are:

- Wilton I and II Wind Energy Center
- Minnkota Power Cooperative, Inc. Center to Grand Forks Transmission Line
- Rural housing subdivisions

The existing wind energy facilities in Burleigh County are Wilton I and Wilton II wind energy centers, located directly north of the proposed Action. Wilton I was commissioned in 2006 and includes 33 turbines. Wilton II was commissioned in 2009 and includes 33 turbines.

Minnkota Power Cooperative, Inc. has proposed the construction of approximately 260 miles of 345-kilovolt (kV) transmission line from Center to Grand Forks, N.D. This project is referred to as Center to Grand Forks or CGF. It is anticipated to be completed by early 2013 to enable the transmission of energy from the existing Milton R. Young 2 power station directly into the Minnkota service territory.

Potential Cumulative Impacts

Wind energy development is anticipated to have a positive cumulative impact on several resources, including air quality, and minimal impacts to geology, soils, water, noise, safety and health issues, and cultural resources. Socioeconomic impacts are anticipated to be positive, as the rural economy and energy production is diversified.

The principal resources of concern for cumulative impacts are anticipated to be land use and vegetation, wildlife, and acoustic and visual resources. Each of these is discussed below.

Land Use and Vegetation

On a regional scale, a 2007 Congressional Research Service (CRS) report on land conversion in the Northern Plains (North Dakota, South Dakota, and Montana) found that many forces encouraging the conversion of land from grassland to crop production have been intensifying (CRS 2007). Some of these forces include: 1) high market prices for corn as a renewable biofuel; 2) advances in biotechnology; and 3) federal farm commodity support programs. Other causes may include the expiration of CRP contracts and the increase in wind energy development. As mentioned above, in Burleigh County there has also been an increase in large-lot single-family residential development.

With the increase in land being used for wind energy generation activities and new transmission lines to support the new facilities, farming may decrease slightly. The cumulative impacts will be a concern for the rural communities that have historically made their living from agricultural activities. The additional income from wind development on their land, however, may make it more feasible for farmers to keep most of their land in agricultural uses rather than being developed for suburban development. Wind energy development removes less total land from agricultural use than other forms of development.

Cumulative impacts from wind energy projects to native prairie have been raised as a concern (**Appendix C**). As noted in Section 3.4, the majority of North Dakota's grasslands have been lost, primarily as a result of conversion to cropland. Because not all of Burleigh County has been surveyed for native prairie, the total remaining amount of native prairie is not known. A vegetation and land cover map for North Dakota was created, however, as part of the North Dakota Gap Analysis Project for the U. S. Geological Survey's National Gap Analysis Program (GAP). Vegetation and land cover was mapped from a multi-temporal analysis of May, July, and September Landsat Thematic Mapper images acquired from August 1992 to September 1998. According to GAP data, there are 342,141 acres of grassland in Burleigh County. It is estimated that a total of 1,467 acres of land cover would be impacted by the Project, and only a small portion of that (93 acres) would be native prairie; the Project would convert a smaller portion of grassland than additional crop production and residential subdivisions however. Because the exact route of the Minnkota Center to Grand Forks Transmission Line is not yet known, the impacts to cropland and native prairie have not yet been determined. The right-of-way is anticipated to be approximately 150 feet wide. Transmission lines typically follow existing road rights-of-way or fencelines where possible, which minimizes impacts to cropland and native vegetation. The proposed Project will cause a minor contribution to the cumulative conversion of the grassland in the county.

Wildlife

With regard to the cumulative impacts to wildlife, there is a concern that even if no wetlands and other sensitive habitat are directly affected by wind energy projects, the wetlands surrounding the projects will no longer be used by wildlife, and particularly to whooping cranes. Baldwin Wind has committed to zero impacts to wetlands and no new transmission line construction (with the exception of a 240-foot overhead 230-kV tie line and the re-routing of 250 feet of existing line). In addition, to mitigate for whooping crane avoidance of wetlands within 0.5 mile of all the turbines in the Wilton I, Wilton II, and Baldwin wind energy centers, NextEra Energy has committed to acquire and preserve up to 236 acres of wetlands and associated upland habitats. This acreage will be located within the whooping crane migration corridor and could serve as stopover habitat for whooping cranes.

Both Baldwin Wind and Minnkota have committed to installing perch deterrents and bird diverters on new overhead lines in order to minimize impacts to birds. While posing less of a direct threat to birds and other wildlife from collisions, the increase in rural residential development contributes to the reduction of habitat and in habitat fragmentation.

Acoustic and Visual Resources

Cumulative impacts from wind energy projects to acoustic and visual resources in particular have been raised as a concern (**Appendix C**).The acoustic assessment included the proposed Project and the existing Wilton I and II Wind Energy Center turbines that are located in the central portion of the Project Area (**Section 3.9.2**). The cumulative impacts on historic and visual resources were addressed in **Section 3.12**. The Minnkota Center to Grand Forks Transmission Line is unlikely to contribute to cumulative acoustic impacts, but it would introduce an additional new infrastructural element in the landscape. The growth of rural residential development contributes to the cumulative change in the acoustic and visual environment of Burleigh County with the additional development and increase in vehicles. The proposed Project will cause a minor contribution to the cumulative impacts acoustic and visual resources in the county.

3.15 No Action Alternative

Under the no action alternative, no aspect of the Project would be built. As a result, environmental impacts from construction, operation, and maintenance associated with the Proposed Action would not occur. Most environmental conditions, as described in the Affected Environment, would be expected to persist in their existing dynamic state. The need for renewable energy would not be satisfied in part by construction of the Project, and the positive economic impacts would not occur. In addition, if energy generation in the region continues to be primarily with fossil fuels, regional air quality may worsen.

4.0 AGENCIES CONTACTED/CONSULTED

A public scoping meeting was held on October 21, 2009 in Wilton, ND. A second meeting was held on April 7, 2010. Several federal, state, and local agencies were invited to the meeting and encouraged to provide comments regarding the proposed Project. See **Appendices A and B** for summaries of the meetings and the comments received. Full comments from agencies and public are included in **Appendix C**.

4.1 Federal Agencies

The following federal agencies have been contacted as part of the EA scoping process:

- USACE
- EPA
- USFWS
- USDA (Farm Service Agency and Rural Utilities Service)
- Federal Energy Regulatory Commission (FERC)
- Advisory Council on Historic Preservation
- FEMA
- US Department of Transportation (DOT)
- US Dept of Interior, Office of Environmental Policy and Compliance
- USGS
- Federal Highway Administration (FHWA)
- Natural Resources Conservation Service (NRCS)

4.2 State and Local Agencies

The following state and local agencies have been contacted as part of the EA scoping process:

- ND Department of Agriculture (NDDA)
- NDGFD
- North Dakota Department of Transportation (NDDOT)
- North Dakota Public Services Commission (PSC)
- State Historical Society of North Dakota
- North Dakota Indian Affairs Commission
- North Dakota State Land Department
- North Dakota Parks and Recreation Department
- Burleigh County Soil Conservation District
- Office of the Governor
- North Dakota Dept of Commerce
- Burleigh County Commission
- Wilton School District

4.3 Native American Tribes and Associated Bodies

Western sent letters to seven tribes on November 2, 2009 and April 1, 2010 to solicit feedback from the tribes and to initiate tribal consultation. To date, only one tribe (Northern Sheyenne) has responded to Western's letters. A letter was sent to the North Dakota Indian Affairs Commission on September 21, 2009. No response has yet been received.

4.4 Other Organizations

Comments on the Project were submitted by the North Dakota Chapter of the Wildlife Society (**Appendix C**). The following non-governmental organizations have also been contacted as part of the EA scoping process, but no response has yet been received:

- The Nature Conservancy
- Sierra Club
- Dakota Prairie Audubon Society
- Ducks Unlimited
- Pheasants Forever, Inc.

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APPENDIX A

October Scoping Meeting Summary

Baldwin Wind Energy Center Environmental Assessment Scoping Meeting Summary

Date: Wednesday, October 21, 2009
Location: Wilton School Gym, Wilton, ND
Attendees: Approximately 50

Meeting Summary

The proposed Baldwin Wind Energy Center (Project) would connect to a Western Area Power Administration (Western) transmission line. Because of this federal nexus, the Project requires an Environmental Assessment (EA) by Western under the National Environmental Policy Act (NEPA). As part of the NEPA EA process, a public scoping meeting was held near the proposed Project in Wilton, North Dakota on October 21, 2009. The meeting was held in an open house format from 5:00 pm to 8:00 pm.

Several agencies were invited to the meeting (Appendix 1) and advertisements were placed in the Bismarck Tribune from Tuesday, October 6 through Thursday, October 15, 2009 (Appendix 2). The meeting was also included in the public service announcements for the following six radio stations in the Bismarck area: KQDY, KFYR, KBMR, ROCK 101, Y93 and ESPN.

Each attendee was asked to sign in, and was given a Project Fact Sheet, map of the Project, and a comment sheet (Appendix 3). Maps displayed throughout the room illustrated the Project boundary (dated September 9, 2009), the turbine layout, including alternate turbines, aerial photography base, and the location of U.S. Fish and Wildlife Service (USFWS) easements (Appendix 4). A flowchart illustrating the NEPA process and a couple of posters describing the reason for the open house were also displayed (see photos in Appendix 5).

The following people were available to describe the Project and answer questions: Matt Marsh, Western; Allen Wynn, Dick Rausch, Matt Gomes, Neil Jones, Charlie Hutchings, Frank Bernardo, and Josie Hernandez, NextEra Energy; Tracey Martorano, Tetra Tech.

Because the meeting was held as an open house format, there was no formal presentation. Attendees received a handout packet consisting of a Project Fact Sheet, a Project Map, and a Comment Sheet (Appendix 3). Attendees were able to walk around the room to review the displays (Appendix 4 and Appendix 5) and discuss the Project with representatives from Western and NextEra Energy. Photos from the meeting are found in Appendix 5.

Comments

Comment sheets were distributed to all attendees. Some comment forms were received that day and others were accepted through mail, telephone, email and fax through November 21, 2009. Copies of the comments received to-date are found in Appendix C of the EA. Comments were received from the U.S. Environmental Protection Agency (EPA), the Natural Resources Conservation Services (NRCS), and the U.S. Army Corps of Engineers (USACE). All three agencies expressed concern over wetlands in the Project area and requested that impacts to wetlands be minimized.

The National Park Service (NPS) noted that the Lewis and Clark National Historic Trail is located near the proposed Project. North Dakota Highways 1804 and 1806 are designated Lewis and Clark auto tour routes, and the NPS is concerned about potential impacts to the Trail's natural, cultural, recreational, and scenic values, as well as cumulative visual impacts on the Trail.

The North Dakota Parks and Recreation Department (NDPRD) search of the North Dakota Natural Heritage Database did not find any plant or animal species of concern or other significant ecological communities in the Project Area. The NDPRD recommends pre and post construction avian and bat monitoring, and recommends that the area be revegetation with native species.

The North Dakota Chapter of The Wildlife Society submitted comments regarding grassland mitigation, cumulative impacts, and wildlife surveys.

Other than requests to be added to the EA mailing list and to receive a draft copy of the EA document, five comments were received from the public. Three of these comments expressed positive feedback for the Project:

"It looks good to me."

"I am impressed with the good work you are doing in developing sustainable wind energy. Keep up the good work!"

"This looks like a good project. We need more wind energy."

Two comments related to potential future business with the Project. The first comment was:

"I represent Envision Safety Services, LLC located in Bismarck, ND. We provide safety consulting, supervision, training etc. through and after construction projects. I would invite the opportunity to meet with the safety director for NextEra Energy and discuss the possibility of doing safety work during your construction project."

The second business-related comment was:

"I would like to know when the projected start date [sic] of the project and if you have a buyer for the Baldwin Wind Center as of now."

Appendices

Appendix 1 - Invitations
Appendix 2 - Newspaper and radio ad
Appendix 3 – Sign in Sheet and Handouts
Appendix 4 – Project Map
Appendix 5 – Photos

Appendix 1 - Invitations

Department of Energy
Western Area Power Administration
Upper Great Plains Customer Service Region
P.O. Box 35800
Billings, MT 59107-5800

B0401.BL

SEP 30 2009

Dear Interested Party:

Baldwin Wind Energy Center, LLC (Baldwin Wind) proposes to construct, operate, and maintain a wind energy development north of the city of Baldwin in southern Burleigh County, North Dakota (Project). The Project is being proposed by Baldwin Wind Energy Center, LLC for two reasons: (1) to provide clean, reliable, competitive electrical power into the interconnected grid of the western United States, and (2) to accommodate future demand for power in North Dakota and the region. The Project would not only bring non-polluting electrical power to homes and businesses, but would also bring tax benefits to Burleigh County and the State of North Dakota, and would provide a long-term (more than 20-year) revenue stream to landowners.

As a result of the Project proposal, the U.S. Department of Energy's Western Area Power Administration (Western) is conducting studies to satisfy the requirements of the National Environmental Policy Act (NEPA), the Endangered Species Act, the National Historic Preservation Act, and other laws and regulations. Western is the lead federal agency for the proposed action. This letter serves as notification that Western will be preparing an Environmental Assessment (EA) under the provisions of NEPA to determine whether or not the impacts of the Project would be significant.

Approximately 66 three-bladed wind turbine generators (WTG) (1.5 megawatts [MW] each) would be constructed on private leased land. The Project, when complete, would be approximately 99 MW in size and would be located on approximately 12,000 acres of leased land. The power output of the proposed Project would be less than 50 average MW a year.

The GE 1.5 xle turbine, or equivalent, is the preliminary turbine choice for the Project. It is anticipated that each WTG would be 262 feet high at its hub, would have a rotor diameter of 252 feet, and would have a tip height (with a blade in the vertical position) of 389 feet. Each WTG would have a base diameter of 15 feet and a pad measuring about 150 feet by 180 feet (0.6 acre).

Some access to the Project area is currently available along county township roads. Additional access roads would be constructed as necessary. Each WTG would be connected by service roads having a permanent width of 32 feet and a temporary width during construction of 50 feet.

Each WTG would be connected by an underground 34.5 kilovolt (kV) electrical collection system to a collector step-up substation with a 34.5-230 kV transformer. Trenching would require an area temporarily cleared of vegetation about 30 feet wide, but the actual trench would only need to be wide enough to install underground cable.

The Project would interconnect with the Burleigh County Wind Energy Center's Ecklund Substation, which connects to Western's 230-kV Hilken Switch Yard. It is anticipated that the interconnection would consist of a 230-kV substation constructed and owned by Baldwin Wind near or adjacent to the existing Ecklund Substation. Construction of the collector substation would occupy about 250 feet by 250 feet (1.4 acres).

Early notification of this proposed Project is important. As such, Western is contacting appropriate Federal, state, and local agencies; tribes; potentially affected landowners and lessees; and other organizations to share information and raise awareness of the Project. The open-house public scoping meetings will be held at the Wilton School Gym, 504 Dakota Avenue, Wilton, North Dakota, on Wednesday October 21, 2009, from 5 to 8 p.m. You may attend any time between 5 and 8 p.m. You will have the opportunity to view the proposed Project and NEPA process displays and other information. The open-house scoping meeting will be very informal, with Western and Baldwin Wind representatives available for one-on-one discussions with attendees. Written comments may be left with one of Western's representatives at the scoping meeting; may be provided by fax, e-mail, or the U.S. Postal Service to Mr. Matt Marsh; or by mailing the enclosed response sheet. Interested persons are encouraged to comment on issues, concerns, or recommendations related to the proposed Project. Your input is needed by November 20, 2009, in order for it to be considered in defining the scope of the EA for the proposed Project. In addition, please let us know if you would like to receive a copy of the Draft EA for pre-approval review, once it is available.

If you have any questions, concerns, or comments, or wish to receive a review copy of the Draft EA, please call Matt Marsh at (406) 247-7385 or email me at mmarsh@wapa.gov, or by mailing the enclosed response sheet.

Sincerely,

Matt Marsh

Matt Marsh
Project Manager

Enclosure

Western needs your input to identify issues and concerns for the proposed Baldwin Wind Energy Center Project EA

If you have any issues, concerns, or questions that you would like addressed in the Baldwin Wind Energy Center Project Environmental Assessment, please complete this response sheet and send it to Matt Marsh, Environmental Protection Specialist, Upper Great Plains Region, Western Area Power Administration, P.O. Box 35800, Billings, Montana 59107-5800, Fax: (406) 247-7408, E-mail: mmarsh@wapa.gov. If you prefer, give us a call at 1-800-358-3415 or email Matt Marsh at mmarsh@wapa.gov. You may also call Mr. Marsh directly at 406-247-7385.

Share your issues, concerns, or questions with us: (please send additional pages if you wish)

Our mailing list

To have your name added or removed from our mailing list for this project, please check the appropriate box and return this response sheet to us. If you do not ask us to remove your name from our mailing list, we'll send you future EA-related announcements.

__ Yes, add my name to the mailing list to receive future information

__ No, please remove my name from your mailing list

Sign up to receive the EA for Review

Please also let us know if you would like to receive a copy of the Draft Environmental Assessment for Pre-Approval Review when it is available.

__ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.
Name:_____Title:_____
Mailing address:_____
City, State, Zip: _____
Phone: _____Fax:_____E-mail: _____

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

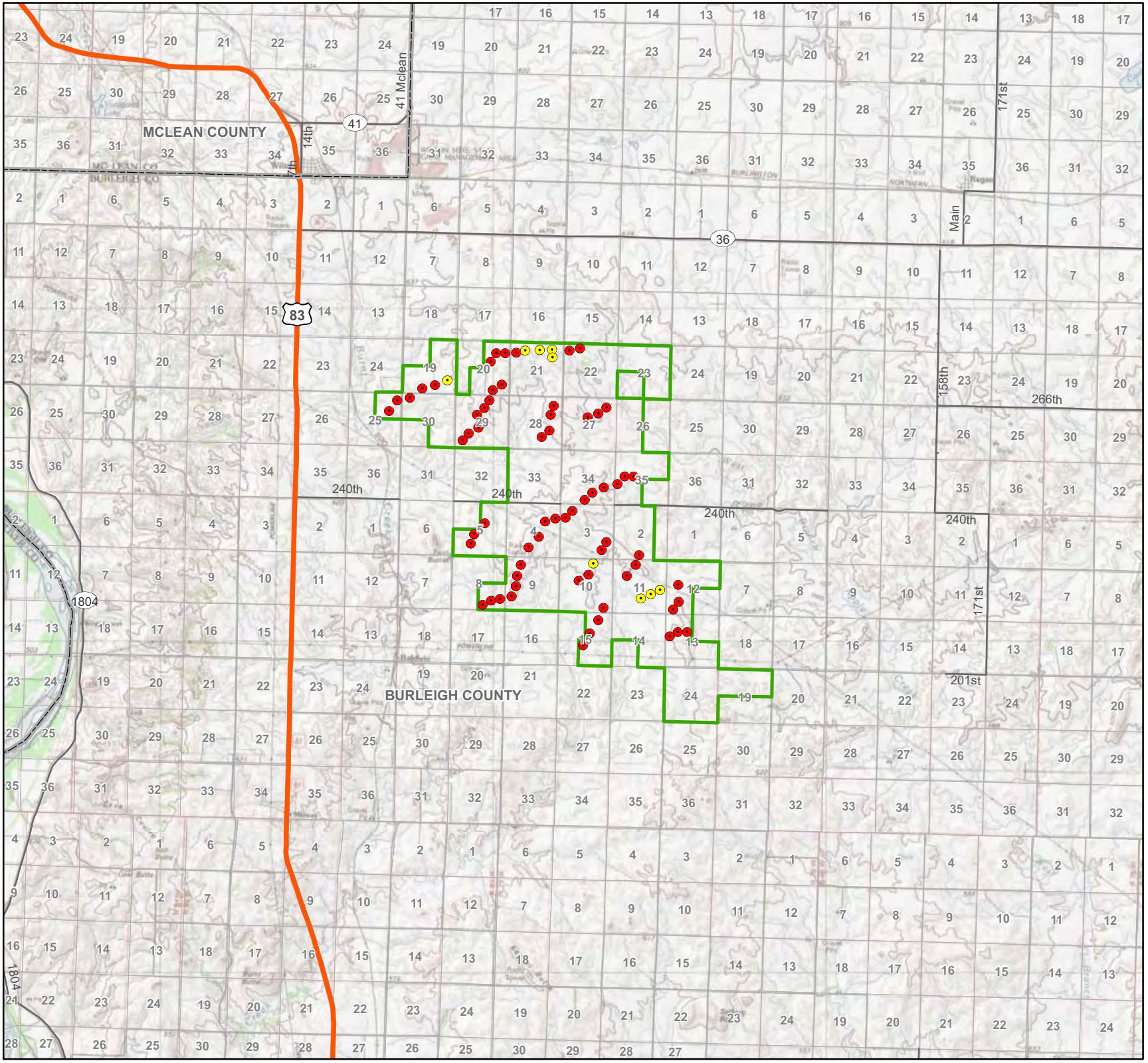


Figure 1.
Baldwin Wind Resource
Area Vicinity Map

Burleigh County,
North Dakota

Western AREA POWER ADMINISTRATION

NEXTera ENERGY RESOURCES

L E G E N D

Baldwin Turine Array (9/9/09)

- Alternate Turbine Site
- Turbine Site
- Baldwin Wind Resource Area (9/9/09)
- County Boundary
- State Boundary
- Highway
- Major Road
- Local Road
- PLSS Section Boundary

Data Sources:
National Geographic Topo Maps
ESRI Streetmap 9.3

0 0.20.4 0.8 1.2 1.6
Miles

File: P:\FPL Energy\Dakotas\Contract 3935 Baldwin - Burleigh County ND\GIS and Figures\GIS\Spatial\MXD\Baldwin_VicinityMap_AgencyLetter.mxd
Prepared By: william.scales
Coordinate System: NAD 1983 UTM Zone 14N

L O C A T I O N M A P

«First Name»	«Last Name»	«Job Title»	«Company/agency»	«Address 1»	«Address 2»	«City»	«State»	«Zip»
Daniel	Cimarosti	Regulatory Program Manager	U.S. Army Corps of Engineers, Omaha District	ND Regulatory Office	1513 South 12th Street	Bismarck	ND	58504-6640
Carol	Rushin	Acting Regional Administrator	U.S. Environmental Protection Agency, Region 8		1595 Wynkoop St., 8EPR-N Mail Code	Denver	CO	80202-1129
Larry	Svoboda	Director	U.S. Environmental Protection Agency	NEPA Program	1595 Wynkoop St., 8EPR-N Mail Code	Denver	CO	80202-1129
Jeff	Townsend	Field Supervisor	U.S. Fish & Wildlife Service	North Dakota Field Office	3425 Miriam Avenue	Bismarck	ND	58501-7926
Ed	Meendering	Wetland Manager	U.S. Fish & Wildlife Service	Long Lake Wetland Management District	12000 353rd St. SE	Moffit	ND	58560-9704
Mark	Palmer	Director, External Affairs	U.S. Department of Agriculture	Farm Service Agency-Public Affairs Staff	1400 Independence Ave., SW STOP 0506	Washington	DC	20250-0506
Mark	Robinson	Director	Federal Energy Regulatory Commission	Office of Energy Projects	888 First Street, NE	Washington	DC	20426
John	Fowler	Executive Director	Advisory Council on Historic Preservation	Old Post Office Building, Suite 803	1100 Pennsylvania Avenue, NW	Washington	DC	20004
Dianne	Guidry	Director, Public Affairs	U.S. Department of Agriculture	Natural Resources Conservation Service	Room 6121-S, P.O. Box 2890	Washington	DC	20013
		Environmental & Historic Preservation	Federal Emergency Management Agency	Denver Federal Center	Building 710, Box 25267	Denver	CO	80225-0267
Mark	Plank	Director	U.S. Department of Agriculture-Rural Utilities Service	Engineering and Environmental Staff	Room 2242-S, Mail Stop 1571, 1400 Independence Ave, SW	Washington	DC	20250
Barry	Cooper	Regional Administrator	U.S. Department of Transportation	Federal Aviation Administration-Great Lakes Region	O'Hare Lake Office Center, 2300 East Devon Avenue	Des Plaines	IL	60018
Willie	Taylor, Ph.D.	Director	U.S. Department of the Interior	Office of Environmental Policy and Compliance	1849 C. Street, NW, MS 2342	Washington	DC	20240
Stanley	Ponce	Central Regional Director	U.S. Geological Survey	Central Region	Denver Federal Center, Building 810, Mail Stop 150	Denver	CO	80225-0046
Doug	Goehring	Agriculture Commissioner	North Dakota Department of Agriculture		600 East Boulevard Avenue, Dept 602	Bismarck	ND	58505-0020
Terry	Steinwand	Director	North Dakota Game and Fish Department		100 N. Bismarck Expressway	Bismarck	ND	58501-5095
Kevin	Levi	District Engineer	North Dakota Department of Transportation	Bismarck District	218 South Airport Road	Bismarck	ND	58504-6003
Darrell	Nitschke	Executive Secretary	North Dakota Public Service Commission		600 E. Boulevard Avenue, Dept 408	Bismarck	ND	58505-0480
Merlan	Paaverud, Jr.	Director	State Historic Society of North Dakota	State Historic Preservation Office	612 East Bouleavard Avenue	Bismarck	ND	58505
Scott	Davis	Executive Director	North Dakota Indian Affairs Commission		600 E. Boulevard Avenue, 1st Floor Judicial Wing, Rm 117	Bismarck	ND	58505
Gary	Preszler	Land Commissioner	North Dakota State Land Department		PO Box 5523	Bismarck	ND	58506-5523
Douglass	Prchal	Director	North Dakota Parks and Recreation Department		1600 E. Century Ave, Suite 3	Bismarck	ND	58503
Linn	Berg	Chair	Burleigh County Soil Conservation District		916 East Interstate Avenue, Suite 6	Bismarck	ND	58503
JOhn	Hoeven	Governor	Office of the Governor		600 East Boulevard Avenue	Bismarck	ND	58505-0001
Wendall	Meyer	Division Administrator	Federal Highway Administration	North Dakota Division	1471 Interstate Loop	Bismarck	ND	58503-0567
J.R.	Flores	State Conservationist	Natural Resources Conservation Service	North Dakota State Office	220 East Rosser Ave, Federal Building, Rm 270	Bismarck	ND	58501
Jean	Schoenhard	County Executive Director	Farm Service Agency	Burleigh County Farm Service Agengy	916 East Interstate Avenue	Bismarck	ND	58503-0548
Paul	Lucy	Director	North Dakota Department of Commerce	Economic Development and Finance Division	PO Box 2057	Bismarck	ND	58502-2057
Kyle	Tschosik	Mayor	City of Wilton		121 Dakota Avenue	Wilton	ND	58579
Jim	Peluso	Chairman	Burleigh County Commission		6131 Ponderosa Avenue	Bismarck	ND	58503
Mark	Armstrong	Vice Chairman	Burleigh County Commission		618 West Boulevard Avenue	Bismarck	ND	58501
Brian	Bitner	Commissioner	Burleigh County Commission		751 80th Street SE	Bismarck	ND	58504
Doug	Schonert	Commissioner	Burleigh County Commission		14600 201st Ave NE	Baldwin	ND	58521
Jerry	Woodcox	Commissioner	Burleigh County Commission		600 N. Washington Street	Bismarck	ND	58501
Kent	Conrad	U.S. Senator	United States Senate		530 Hart Senate Office Building	Washington	DC	20510
Byron	Dorgan	U.S. Senator	United States Senate		322 Hart Senate Office Building	Washington	DC	20510
Earl	Pomeroy	Congressman	United States House of Representatives		1501 Longworth House Office Building	Washington	DC	20515
Jeff	Delzer	Representative	North Dakota House of Representatives	District 8	2919 Fifth Street NW	Underwood	ND	58576-9603
Duane	DeKrey	Representative	North Dakota House of Representatives	District 14	4323 27th Street SE	Pettibone	ND	58475-9357
Robin	Weisz	Representative	North Dakota House of Representatives	District 14	50 Highway 3 South	Hurdsfield	ND	58451-9009
Layton	Freborg	Senator	South Dakota Senate	District 8	PO Box 677	Underwood	ND	58576-0677
Jerry	Klein	Senator	South Dakota Senate	District 14	PO Box 265	Fessenden	ND	58438-0265
Bob	Paulson	Western Dakotas Program Director	The Nature Conservancy		822 Main Street	Rapid City	SD	57701
Jim	Margadant	Chairperson	Sierra Club	North Dakota Office	311 East Thayer Ave, Suite 113	Bismarck	ND	58501
Lawrence & Amy	Igl	President	Dakota Prairie Audubon Society		1514 Skyline Lane	Jamestown	ND	58401
Matt	Shappell	Regional Director	Ducks Unlimited	North Dakota	4111 Lockport Street #212	Bismarck	ND	58503
			Pheasants Forever, Inc.	Chapter #47 - Burleigh County	1783 Buerkle Circle	St. Paul	MN	55110
Craig	Johnson	Superintendent	Wilton School District		PO Box 249	Wilton	ND	58579

OCT 2 8 2009

B0401.BL

Mr. Jeff Towner
Field Supervisor, Ecological Services
North Dakota Ecological Services Field Office
3425 Miriam Avenue
Bismarck, ND 58501

Dear Mr. Towner:

This letter invites your agency to become a cooperating agency for the environmental assessment (EA) for the proposed Baldwin Wind Energy Center Project (Project). Western Area Power Administration's (Western) Upper Great Plains Regional Office, a power-marketing agency within the U.S. Department of Energy, has received an interconnection request to support a proposed 99 megawatt (MW) wind farm for location in southem Burleigh County, North Dakota. The NextEra Energy Resource's (Applicant) proposed Project is a 66 turbine wind farm proposed for location immediately south of the existing Wilton I and II Wind Farms.

The Applicant has applied to Western to interconnect the proposed Project to Western's power transmission system. This interconnection request triggers a Federal National Environmental Policy Act (NEPA) review process. Western is the lead Federal agency for the preparation of an EA for this Project, and will be the lead agency for consultations with the U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act, the South Dakota State Historic Preservation Office under section 106 of the National Historic Preservation Act, and other interested parties.

The Council on Environmental Quality NEPA Implementing Regulations (40 CFR part 1501.6) state that any Federal agency which has special expertise with respect to any environmental issue that should be addressed in the EA may be a cooperating agency upon request of the lead agency. We are inviting you to become a cooperating agency to ensure that all your requirements are appropriately addressed in the EA. The benefits of becoming a cooperating agency include disclosure of relevant information early in the EA process and establishment of a mechanism to address any intergovernmental issues. Should you decide not to become a formal cooperating agency for the EA, we will continue to keep your agency informed of project developments through the mailing list, and you will receive the draft and final EA documents.

We are available to meet with you and/or your office at your convenience to discuss the proposed Project and your participation. If you have any questions, please contact Mr. Matt Marsh at (406) 247-7385 or email him at mmarsh@wapa.gov.

Sincerely,

/S/ Matt Marsh

for Nicholas J. Stas
Environmental Manager

bcc:
A7400 (RF)
J. Bridges, A7400, Lakewood, CO
M. Marsh, B0401.BL, Billings, MT

B0401.BL:mm:kf:10/28/09:R:\Groups\Environmental\Letters\Baldwin COOP Fed Agency Request.docx

Appendix 2 - Newspaper and radio ad

Baldwin Scoping Meeting Radio Ad

We need your input! Western Area Power Administration will host a public scoping meeting to help define the scope of an Environmental Assessment for Baldwin Wind Energy Center.

The proposed project will include 66 wind turbine generators, an underground power collection system, access roads, and an operations and maintenance facility. Construction of the Baldwin Wind Energy Center is proposed to begin in May 2010.

The meeting will be held on Wednesday, October 21st from 5 to 8 PM at the Wilton School Gym. For more information, please contact Matt Marsh at 1-800-358-3415.

remained in the central North Dakota area on Tuesday with a daytime high temperature in the mid-30's.

New addresses for sex offenders

By JENNY MICHAEL
Bismarck Tribune


Scarberry


Drager


Buckley


Profrock


Alyea

Police say three sex offenders in Bismarck and two in Mandan have new addresses.

Jacob Scarberry, 21, now lives at 3500 E. Bismarck Expressway, a mobile home set up by the state Department of Corrections and Rehabilitation for sex offenders with nowhere to stay.

Scarberry, a high-risk offender, is required to register for the remainder of his life for a 2007 conviction in Clairmont County, Ohio, for unlawful sexual conduct with a minor. Scarberry had a consensual sexual relationship with a 15-year-old girl when he was 19, according to a release from the Bismarck Police Department. Scarberry recently was released from prison on other charges.

Ronald Drager, 52, now lives at 1800 E. Broadway Ave. Drager, a moderate-risk offender, was convicted of gross sexual imposition in 2000 in Adams County for sexually assaulting two young girls, according to a police release. Drager recently was released from prison.

John Dennis Buckley, 33, is now living at 2510 N. Eighth St. #102. Buckley, a moderate-risk offender, was convicted in federal court in Pennington County, South Dakota, in 1999 of aggravated sexual abuse of a minor. Buckley molested and attempted sexual intercourse with a 15-year-old girl, according to a police release. He recently moved to Bismarck.

Timothy Profrock, 37, now lives at 1010 First St. N.E. in Mandan. Profrock, a moderate-risk offender, was convicted in 1996 of criminal sexual conduct in the third degree in Grand Traverse County, Mich. The victim was a 27-year-old woman. Profrock just moved to Mandan.

Charles Alyea, 20, now lives at 905 Pioneer Trail in Mandan. Alyea was convicted in Burleigh County in 2003, when he was a juvenile, of gross sexual imposition. The victims were two girls, approximately 11 years old, according to a release from the Mandan Police Department. Alyea moved to Mandan in October. He is required to register as a sex offender for the remainder of his life.

(Reach reporter Jenny Michael at 250-8225 or jenny.michael@bismarcktribune.com.)

Gary Graber, of Cody, Wyo., was driving a 1997 Dodge pickup from Bismarck to Steele. He lost control of the pickup on the snow- and ice-covered roadway while trying to pass another vehicle. The pickup entered the median, rolled and came to rest on its roof.

Paul Graber, the passenger in the pickup and also of Cody, Wyo., was pronounced dead at the scene. Neither man was wearing a seat belt, the patrol said.

The wreck remains under investigation.

The wreck was one of two fatal crashes on North Dakota roads on Monday.

Manuel Perez, 48, of Cavalier, was killed in a wreck on Interstate 29 in Pembina County at 7:51 a.m. Monday. A passenger in Perez's vehicle, Clayton Allison, 47, of Pembina, had to be extricated from the vehicle and was taken to Altru Health Systems for treatment.

(Reach reporter Jenny Michael at 250-8225 or jenny.michael@bismarcktribune.com.)

Appendix 3 – Sign in Sheet and Handouts

Baldwin Wind Energy Center Open House

October 21, 2009, 5-8 PM Wilton School Gym

Please Print Clearly

SIGN IN SHEET

NAME	ADDRESS	POSTAL CODE	PHONE #	ADD TO MAILING LIST	
[illegible]	Confidential Information			YES ☒	NO ☐
[illegible]				YES ☒	NO ☐
[illegible]				YES ☐	NO ☐
David Andahl				YES ☒	NO ☐
Tom Spitzer				YES ☐	NO ☐
Dean Goetz				YES ☒	NO ☐
[illegible]				YES ☐	NO ☐
[illegible]				YES ☑	NO ☐
[illegible]				YES ☐	NO ☒
Bob Sorem				YES ☒	NO ☐
Gene Hilken				YES ☒	NO ☐
[illegible]				YES ☒	NO ☐
Rick Sorem				YES ☒	NO ☐
Lyle Witham				YES ☒	NO ☐

Baldwin Wind Energy Center Open House

October 21, 2009, 5-8 PM Wilton School Gym

SIGN IN SHEET

Please Print Clearly

NAME	ADDRESS	POSTAL CODE	PHONE #	ADD TO MAILING LIST	
Doug Hartman	Confidential Information			YES ☒	NO ☐
Michelle Sjursen				YES ☒	NO ☐
Eldon [illegible]				YES ☒	NO ☐
Diane Enger				YES ☒	NO ☐
Steve Merrill				YES ☐	NO ☐
[illegible]				YES ☐	NO ☐
[illegible]				YES ☒	NO ☐
Vivian Nielsen				YES ☒	NO ☐
[illegible] Nielsen				YES ☐	NO ☐ Dupe
Wilhelm Meyer				YES ☒	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐

Baldwin Wind Energy Center Open House

October 21, 2009, 5-8 PM Wilton School Gym

Please Print Clearly

SIGN IN SHEET

NAME	ADDRESS	POSTAL CODE	PHONE #	ADD TO MAILING LIST	
Norvel Schuler / Morel				YES ☒	NO ☐
Joel Fricke				YES ☐	NO ☐
Gregg Greenquist				YES ☒	NO ☐
Toby L Sheldon				YES ☒	NO ☐
Robert W. Anderson				YES ☑	NO ☐
Jeff Spitzer				YES ☒	NO ☐
[illegible]				YES ☒	NO ☐
Brian Bitner				YES ☐	NO ☐
JOHN O. Spitzer				YES ☒	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐

Confidential Information

Baldwin Wind Energy Center

Overview

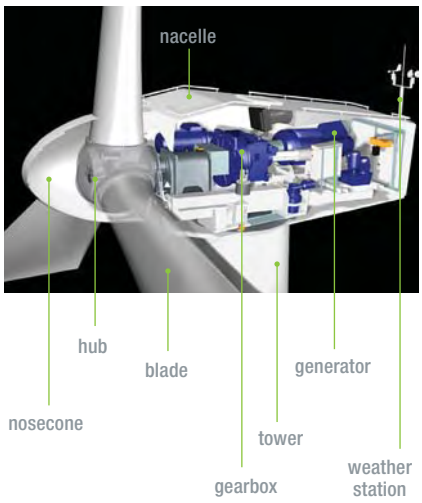
» Located in Burleigh County, North Dakota
» Built, owned, and operated by a subsidiary of NextEra™ Energy Resources
» 99-megawatt wind generation plant
» 66 1.5-megawatt GE turbines that are capable of generating enough electricity to power more than 24,000 homes
» Each turbine is approximately 262 feet tall from the ground to the hub in the center of the blades
» Commercial operation expected to begin in 2010

Benefits

» Expected to employ a staff of 5
» Estimated to pay over $200,000 annually in property taxes
» Estimated to make annual landowner payments of over $600,000
» Creates no air or water pollution
» Uses no water in the generation of electricity
» Allows land to remain in agricultural use

About NextEra™ Energy Resources

» A leading clean energy provider operating wind, natural gas, solar, hydroelectric and nuclear power plants across the nation
» More than 17,000 megawatts of generating capacity in 25 states and Canada
» The largest wind generator in the country with nearly 70 facilities currently in operation
» A subsidiary of FPL Group, Inc., with headquarters in Juno Beach, Florida



How It Works

Wind turbines work on the same principle as a child's pinwheel. When you blow on a pinwheel, the blades of the pinwheel spin around—same with a wind turbine.

When the wind blows against the blades of the wind turbine, the blades slowly rotate. The blades are connected to a drive shaft inside the large box (called a nacelle) seen on the top of the tower. The drive shaft turns the generator, which makes the electricity. Each wind turbine operates independently of the others. Each is, es–sentially, an individual power plant.

The turbine has a weather station on the top that tells it the wind speed and wind direction. That information is sent to the turbine's computer, which moves the top of the turbine (the nacelle and blades) so that the blades are always facing into the wind. The nacelle can turn 360 degrees.

The electricity is carried in cables from the generator down the inside of the tower, then underground to the site's substation. That power then goes into the offsite transmission lines and is used by the local utility to serve its customers in the region.

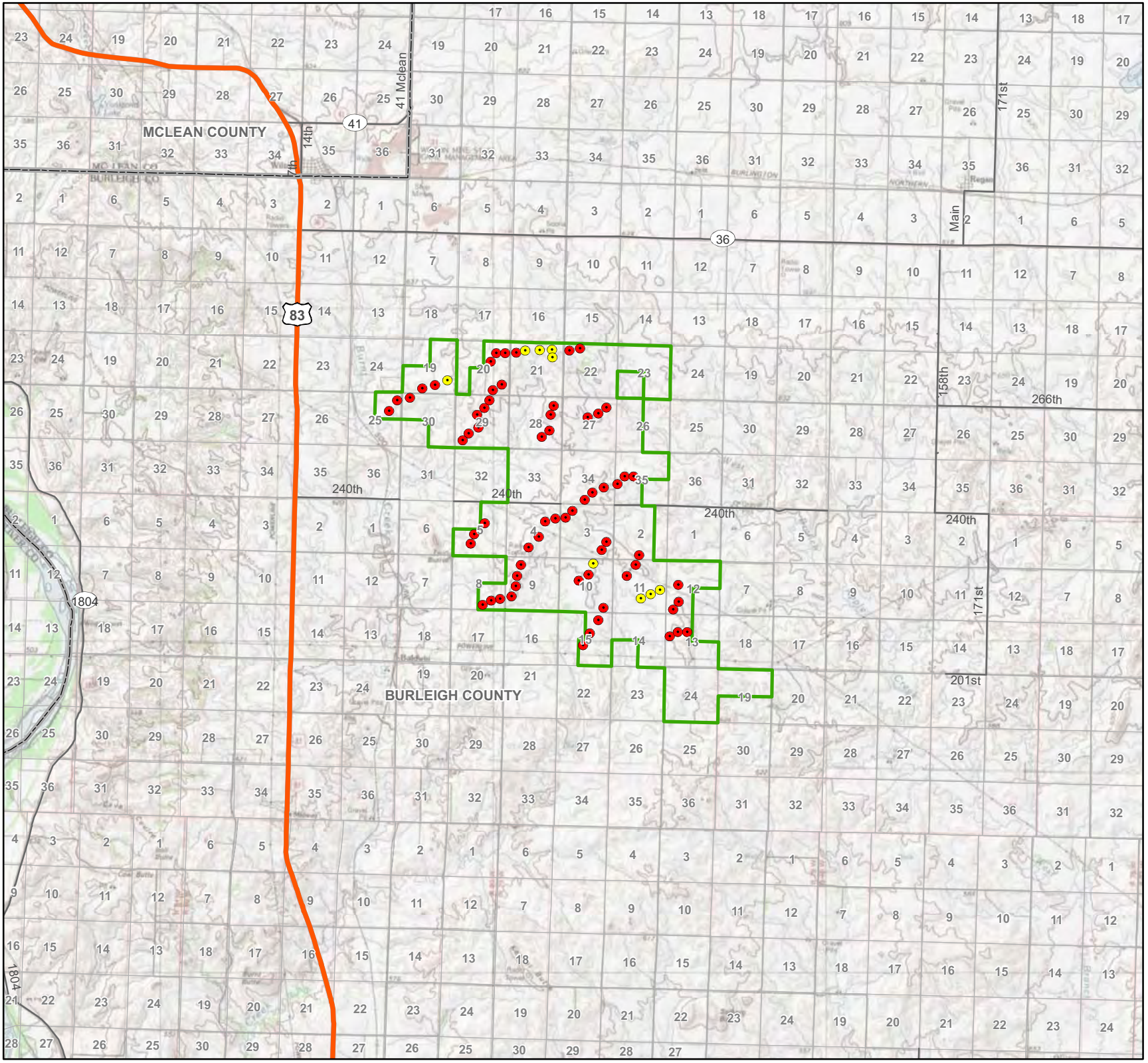


Figure 1.
Baldwin Wind Resource
Area Vicinity Map

Burleigh County,
North Dakota

Western AREA POWER ADMINISTRATION

NEXTera ENERGY RESOURCES

L E G E N D

Baldwin Turine Array (9/9/09)

- Alternate Turbine Site
- Turbine Site
- Baldwin Wind Resource Area (9/9/09)
- County Boundary
- State Boundary
- Highway
- Major Road
- Local Road
- PLSS Section Boundary

Data Sources:
National Geographic Topo Maps
ESRI Streetmap 9.3

0 0.20.4 0.8 1.2 1.6
Miles

File: P:\FPL Energy\Dakotas\Contract 3935 Baldwin - Burleigh County ND\GIS and Figures\GIS\Spatial\MXD\Baldwin_VicinityMap_AgencyLetter.mxd
Prepared By: william.scales
Coordinate System: NAD 1983 UTM Zone 14N

L O C A T I O N M A P

Baldwin Wind Energy Center Open House

October 21, 2009, 5-8 PM Wilton School Gym

COMMENT SHEET

After reviewing all of the exhibits and speaking with project representatives, please share your comments with us regarding the Baldwin Wind Energy Center Environmental Assessment.

Comments:

To receive more information regarding the Environmental Assessment for the Baldwin Wind Energy Center, please provide us your contact information.

Name: _____

Address: _____

City, State, Zip: _____

Phone Number: _____

Email: _____

Representing (organization, company, etc.) _____

After completing the comment form, please submit it in the comment box, or mail/fax to:
Matt Marsh, Environmental Protection Specialist, Western Area Power Administration
PO Box 35800, Billings, MT 59107-5800, Fax: (406) 247-7408. You may also submit your comments via phone at (800) 358-3415 or via email to mmarsh@wapa.gov. **Your comments are important to us and will be accepted through November 21, 2009**.

Thank you for your participation.

Scoping Meeting
Baldwin Wind Energy Center
Environmental Assessment (EA)

Thank you for your interest in the proposed Baldwin Wind Energy Center EA. Please complete the appropriate sections of this form to be included on the EA mailing list and/or to provide comments. Written comments can be submitted at the Scoping Meeting, faxed to (406) 247-7408, mailed to Mr. Matt Marsh, Western Area Power Administration, Upper Great Plains Customer Service Office, P.O. Box 35800, Billings, MT 59107-5800 or sent to the **NEPA Document Manager at mmarsh@wapa.gov.**

☐ I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.
☐ I prefer electronic/email communication.
☐ I prefer paper mailings.

Please Print Contact Info Below

Name:	Organization:
E-mail address:	Daytime Phone No. *(optional):*
Street Address:	City / State / Zip Code:

Please indicate any questions, comments or concerns you have about the proposed agreement modification in the comment section below (continue on separate sheet if necessary).

Thank you for your time and interest.

Please fold in thirds and tape

Mr. Matt Marsh
NEPA Document Manager
Western Area Power Administration
Upper Great Plains Region
P.O. Box 35800
Billings, MT 59107-5800

Appendix 4 – Project Map

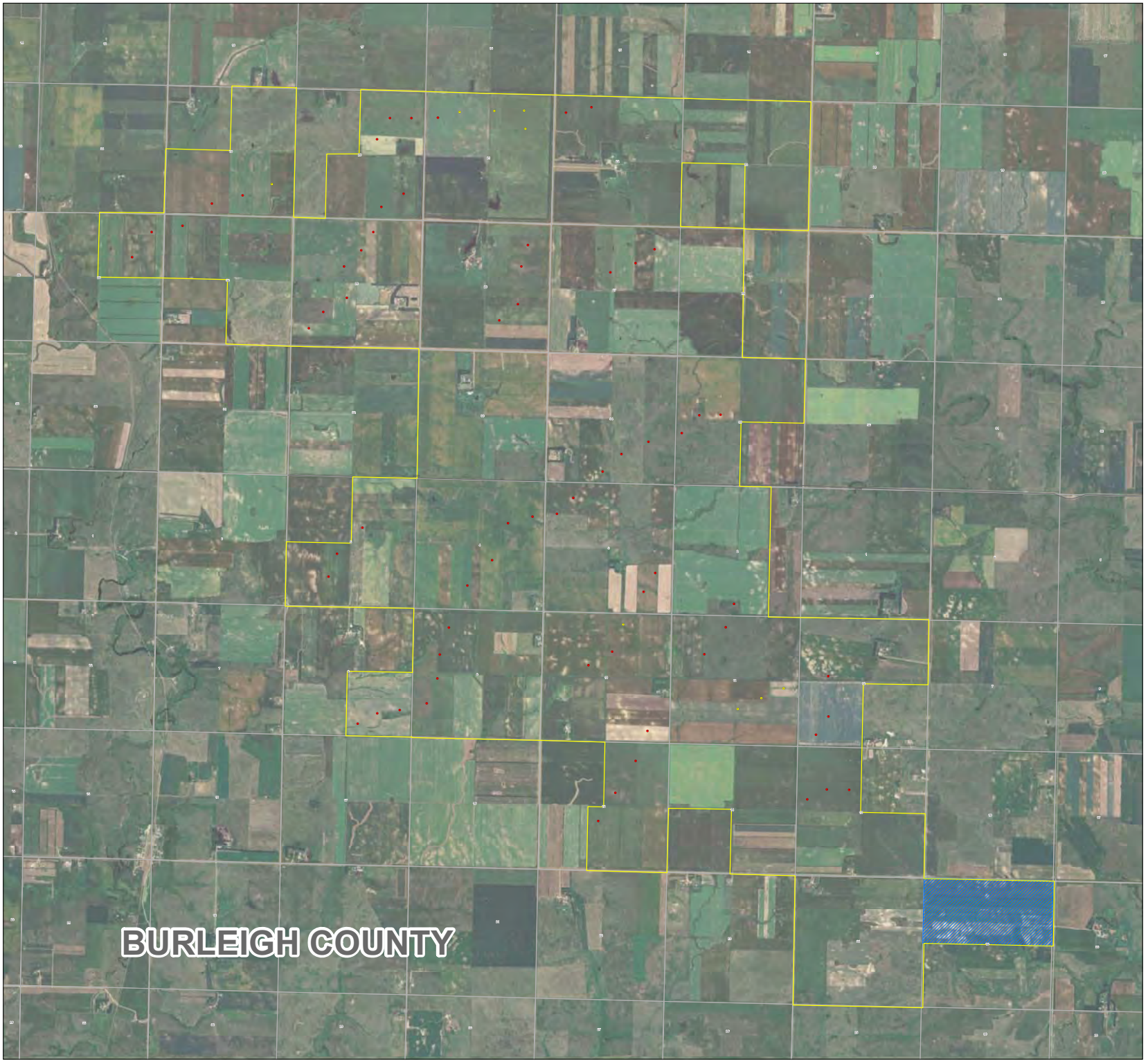


Figure 1.
Baldwin Wind Resource Area Vicinity Map

Burleigh County,
North Dakota

Western Area Power Administration

NEXTera Energy Resources

L E G E N D

Baldwin Turine Array (9/9/09)

- Alternate Turbine Site
- Turbine Site
- USFWS Wetland Easement
- Baldwin Wind Resource Area (9/9/09)
- County Boundary
- State Boundary
- Highway
- Major Road
- Local Road
- PLSS Section Boundary

Data Sources:
National Geographic Topo Maps
ESRI Streetmap 9.3

0 0.2 0.4 0.6 0.8
Miles

File: P:\FPL Energy\Dakotas\Contract 3935 Baldwin - Burleigh County ND\GIS and Figures\GIS\Spatial\MXD\Baldwin_VicinityMap_AgencyLetter.mxd
Prepared By: william.scales
Coordinate System: NAD 1983 UTM Zone 14N

L O C A T I O N M A P

Appendix 5 – Photos

Baldwin Scoping Meeting Photos

Photo 1 Attendees at Public Scoping Meeting

Photo 2 Western Displays

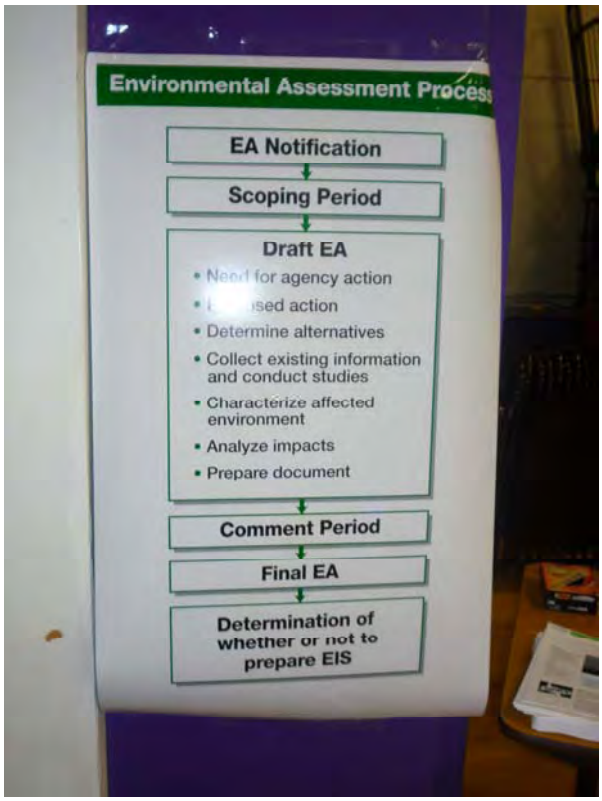


Photo 3 EA Process Flowchart

Photo 4 Attendees Reviewing Project Map

Photo 5 Attendees at Meeting

Photo 6 Project Proponents Answering Questions

Photo 7 Comment Box and Sign-In Table

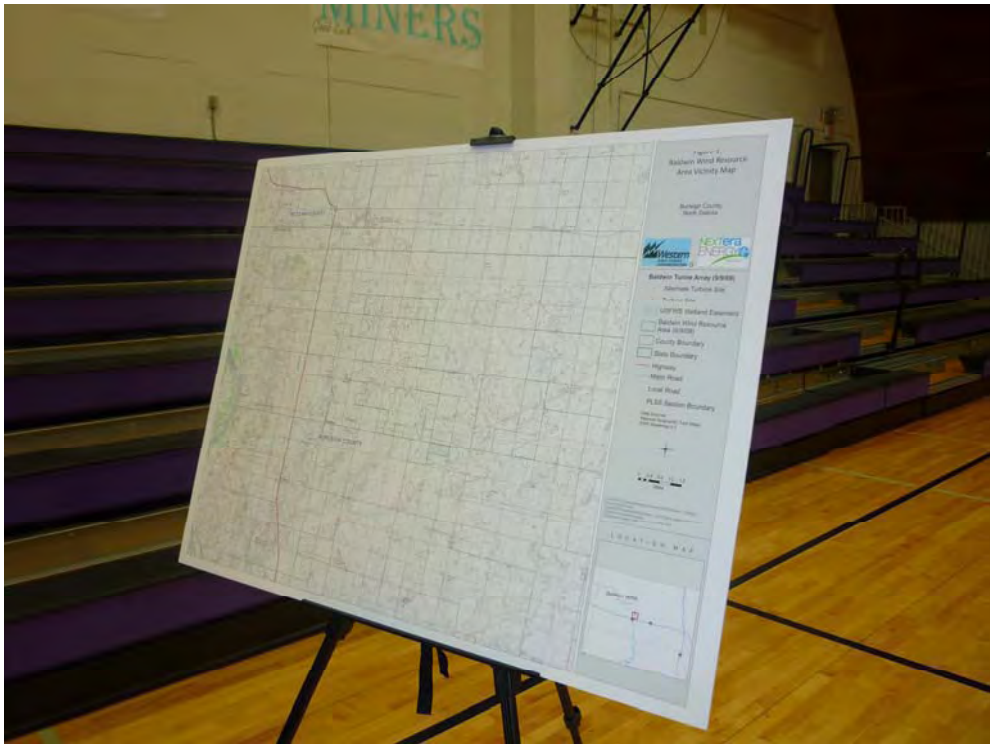


Photo 8 Project Area Map on Display

APPENDIX B

April Scoping Meeting Summary

Baldwin Wind Energy Center Environmental Assessment
April 2010 Scoping Meeting Summary

Date: Wednesday, April 7, 2010
Location: Wilton School Gym, Wilton, ND
Attendees: Approximately 45

Meeting Summary

The Project Area for the proposed Baldwin Wind Energy Center (Project) was expanded after the scoping meeting held in October 2009. Because of the change in the Project, Western Area Power Administration (Western) held a second scoping meeting as part of the NEPA EA process. The public scoping meeting was held near the proposed Project in Wilton, North Dakota on April 7, 2010 in an open house format from 5:00 pm to 8:00 pm.

Several agencies, as well as participating landowners, were invited to the meeting (Appendix 1) and advertisements were placed in the Bismarck Tribune from Sunday, March 21, 2010 through Monday, April 5, 2010 (Appendix 2).

Each attendee was asked to sign in, and was given a Project Fact Sheet, map of the Project, and a comment sheet (Appendix 3). Maps displayed throughout the room illustrated the Project boundary, the turbine layout (including alternate turbines), aerial photography base and topography (Appendix 4).

The following people were available to describe the Project and answer questions: Matt Marsh, Western; Scott Scovill, Courtney Chais, Allen Wynn, and Charlie Hutchings, NextEra Energy; Tracey Martorano, Tetra Tech.

Because the meeting was held as an open house format, there was no formal presentation. Attendees received a handout packet consisting of a Project Fact Sheet, a Project Map, and a Comment Sheet (Appendix 3). Attendees were able to walk around the room to review the displays and discuss the Project with representatives from Western and NextEra Energy. Photos from the meeting are found in Appendix 5.

Comments

Comment sheets were distributed to all attendees. Some comment forms were received that day and others were accepted through mail, telephone, email and fax through April 26, 2010. Copies of the comments received to-date are found in Appendix C of the EA document.

The U.S. Fish and Wildlife Service (USFWS) included comments previously sent. The North Dakota Game and Fish Department (NDGFD) noted that the Project Area was located close to the Wilton Mine Wildlife Management Area and requested a copy of the Draft EA. The Federal Highway Administration (FHWA) wished to receive a copy of the Draft EA, and the Natural Resources Conservation Service (NRCS) Washington, DC office wished to be removed from the contact list.

Other than requests to be added to the EA mailing list and to receive a draft copy of the EA document, 12 comments were received from the public. Six of these comments expressed concerns regarding visual, noise, health, and property value impacts from the Project; two of the comments specifically requested that no turbines be placed in Section 13 of Crofte Township.

One person commented that many Burleigh County residents have expressed a preference for a half-mile setback from non-participating residences, rather than the 1,750-foot setback adopted by the County.

Two comments were questions:

- What are the effects of exposure electromagnetic fields from the Project, and what is a safe distance?
- "We would like to know the annual payments for each tower."

Two comments were in support of the Project, while one wished to provide safety services during construction of the proposed Project.

Appendices

Appendix 1 – Invitation and Notification List
Appendix 2 - Newspaper Ad
Appendix 3 – Sign-in Sheet and Handouts
Appendix 4 – Project Maps
Appendix 5 – Photos

Appendix 1 – Invitation and Notification List

Department of Energy
Western Area Power Administration
Upper Great Plains Customer Service Region
P.O. Box 35800
Billings, MT 59107-5800

Dear Interested Party:

The Western Area Power Administration (Western) is holding a second public meeting for the Baldwin Wind Energy Center Project Environmental Assessment (EA). Since the scoping meeting held in October 2009, the Project area was expanded to include an area east of Wilton (see attached figure), immediately north of the current Wilton Wind farms. The proposed Project is a 99-megawatt (MW) wind energy facility northeast of Baldwin in Burleigh County. The proposed Project will operate at 49.5-MW capacity and would interconnect with Western's transmission line. Western is preparing an EA in order to comply with the National Environmental Policy Act (NEPA), which requires Western to take into account the environmental impacts that could result from an action. NEPA also requires that federal agencies seek public input on proposed projects.

The principal components of the facility will include: 62 wind turbine generators, an underground power collection system, a connector road system, and an operations and maintenance facility. Wind turbine towers would be 80 meters (263 feet) high, and wind turbine rotors would be 83 meters (272 feet) in diameter, for a total height from base to blade tip of 122 meters (400 feet). Electrical power from the proposed facility would interconnect to the existing Ecklund substation near Wilton, North Dakota. Construction of the Baldwin Wind Energy Center is proposed to begin in the summer of 2010.

A public meeting will be held on Wednesday, April 7, 2010, to provide an opportunity for the public to submit comments on the proposal in person, and to talk to staff and resource specialists working on the project. The meeting will be held from 5:00 p.m. to 8:00 p.m. at the Wilton School Gym, 504 Dakota Avenue, Wilton, North Dakota.

Comments will be accepted at the public meeting by letter at the address below, or by e-mailing mmarsh@wapa.gov. Please refer to the Baldwin Wind Energy Facility in your correspondence. Send all comments by close of business on April 21, 2010, to the address above. Please feel free to call me at 406-247-7385 with any questions or concerns about the project.

Sincerely,

Matt Marsh

Matt Marsh

Daniel Cimarosti
Regulatory Program Manager
U.S. Army Corps of Engineers, Omaha District
ND Regulatory Office
1513 South 12th Street
Bismarck, ND 58504-6640

Carol Rushin
Acting Regional Administrator
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop St., 8EPR-N Mail Code
Denver, CO 80202-1129

Larry Svoboda
Program Director
U.S. Environmental Protection Agency, Region 8
NEPA Program
1595 Wynkoop St., 8EPR-N Mail Code
Denver, CO 80202-1129

Jeffrey Towner
Field Supervisor
U.S. Fish & Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926

Ed Meendering
Wetland Manager
U.S. Fish & Wildlife Service
Long Lake Wetland Management District
12000 353rd St. SE
Moffit, ND 58560-9704

Mark Palmer
Director, External Affairs
U.S. Department of Agriculture
Farm Service Agency-Public Affairs Staff
1400 Independence Ave., SW STOP 0506
Washington, DC 20250-0506

Mark Robinson
Director
Federal Energy Regulatory Commission
Office of Energy Projects
888 First Street, NE
Washington, DC 20002

John Fowler
Executive Director
Advisory Council on Historic Preservation
Old Post Office Building, Suite 803
1100 Pennsylvania Avenue, NW
Washington, DC 20004

Dianne Guidry
Director, Public Affairs
U.S. Department of Agriculture
Natural Resources Conservation Service
Room 6121-S, P.O. Box 2890
Washington, DC 20013

Environmental & Historic Preservation
Federal Emergency Management Agency
Denver Federal Center
Building 710, Box 25267
Denver, CO 80225-0267

Mark Plank
Director
U.S. Department of Agriculture-Rural Utilities Service
Engineering and Environmental Staff
Room 2242-S, Mail Stop 1571
1400 Independence Ave, SW
Washington, DC 20250

Barry Cooper
Regional Administrator
U.S. Department of Transportation
Federal Aviation Administration-Great Lakes Region
O'Hare Lake Office Center, 2300 East Devon Avenue
Des Plaines, IL 60018

Willie Taylor, Ph.D.
Director
U.S. Department of the Interior
Office of Environmental Policy and Compliance
1849 C. Street, NW, MS 2342
Washington, DC 20240

Stanley Ponce
Central Regional Director
U.S. Geological Survey
Central Region
Denver Federal Center, Building 810, Mail Stop 150
Denver, CO 80225-0046

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

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

Kevin Levi
District Engineer
North Dakota Department of Transportation
Bismarck District
218 South Airport Road
Bismarck, ND 58504-6003

Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
600 E. Boulevard Avenue, Dept 408
Bismarck, ND 58505-0480

Merlan Paaverud, Jr.
Director
State Historic Society of North Dakota
State Historic Preservation Office
612 East Boulevard Avenue
Bismarck, ND 58505

Scott Davis
Executive Director
North Dakota Indian Affairs Commission
600 E. Boulevard Avenue, 1st Floor Judicial Wing, Rm 117
Bismarck, ND 58505

Gary Preszler
Land Commissioner
North Dakota State Land Department
PO Box 5523
Bismarck, ND 58506-5523

Douglass Prchal
Director
North Dakota Parks and Recreation Department
1600 E. Century Ave, Suite 3
Bismarck, ND 58503

Linn Berg
Chair
Burleigh County Soil Conservation District
916 East Interstate Avenue, Suite 6
Bismarck, ND 58503

John Hoeven
Governor
Office of the Governor
600 East Boulevard Avenue
Bismarck, ND 58505-0001

Wendall Meyer
Division Administrator Federal Highway Administration
North Dakota Division 1471 Interstate Loop
Bismarck, ND 58503-0567

John Glover
State Conservationist Natural Resources Conservation Service
North Dakota State Office
PO Box 1458
Bismarck, ND 58502-1458

Jean Schoenhard
County Executive Director
Farm Service Agency
Burleigh County Farm Service Agency
916 East Interstate Avenue
Bismarck, ND 58503-0548

Paul Lucy
Director
North Dakota Department of Commerce
Economic Development and Finance Division
PO Box 2057
Bismarck, ND 58502-2057

Kyle Tschosik
Mayor, City of Wilton
121 Dakota Avenue
Wilton, ND 58579

Jim Peluso
Chairman
Burleigh County Commission
6131 Ponderosa Avenue
Bismarck, ND 58503

Mark Armstrong
Vice Chairman
Burleigh County Commission
618 West Boulevard Avenue
Bismarck, ND 58501

Brian Bitner
Commissioner
Burleigh County Commission
751 80th Street SE
Bismarck, ND 58504

Doug Schonert
Commissioner
Burleigh County Commission
14600 201st Ave NE
Baldwin, ND 58521

Jerry Woodcox
Commissioner
Burleigh County Commission
600 N. Washington Street
Bismarck, ND 58501

Kent Conrad
U.S. Senator
United States Senate
530 Hart Senate Office Building
Washington, DC 20510

Byron Dorgan
U.S. Senator
United States Senate
322 Hart Senate Office Building
Washington, DC 20510

Earl Pomeroy
Congressman
United States House of Representatives
1501 Longworth House Office Building
Washington, DC 20515

Jeff Delzer
Representative
North Dakota House of Representatives
District 8
2919 Fifth Street NW
Underwood, ND 58576-9603

Duane DeKrey
Representative
North Dakota House of Representatives
District 14
4323 27th Street SE
Pettibone, ND 58475-9357

Robin Weisz
Representative
North Dakota House of Representatives
District 14
50 Highway 3 South
Hurdsfield, ND 58451-9009

Layton Freborg
Senator
North Dakota Senate
District 8
PO Box 677
Underwood, ND 58576-0677

Jerry Klein
Senator
North Dakota Senate
District 14
PO Box 265
Fessenden, ND 58438-0265

Bob Paulson
Western Dakotas Program Director
The Nature Conservancy
822 Main Street
Rapid City, SD 57701

Jim Margadant
Chairperson
Sierra Club
North Dakota Office
311 East Thayer Ave, Suite 113
Bismarck, ND 58501

President
Dakota Prairie Audubon Society
1514 Skyline Lane
Jamestown, ND 58401

Matt Shappell
Regional Director
Ducks Unlimited
North Dakota
4111 Lockport Street #212
Bismarck, ND 58503

Pheasants Forever, Inc.
Chapter #47 - Burleigh County
1783 Buerkle Circle
St. Paul, MN 55110

Craig Johnson
Superintendent
Wilton School District
PO Box 249
Wilton, ND 58579

Russ and Joyce Kristiansen
1801 149th Ave NW
Bismarck, ND 58503

Larry Russian
203 Burleigh Rd
Wilton, ND 58579

David Andahl
10001 15th St NW
Baldwin, ND 58521

Shannon Brown
10001 253rd Ave NE
Baldwin, ND 58521

Lyle Witham
1018 E. Highland Acres
Bismarck, ND 58501

Doug Hartman
Envision Safety Services, LLC
3712 Lockport St. Suite E
Bismarck, ND 58503

Michelle Schroeder
19701 145th St NE
Baldwin, ND 58521

Diane Enger
1127 N 29th St
Bismarck, ND 58501

Kyle Hilken
Box 118
Wilton, ND 58579

Norvel Schuler
8251 201st Ave
Baldwin, ND 58521

Gregg Greenquist
Community Development Department
221 North 5th Street
Bismarck, ND 58501

John Spitzer
Chairman of Board of Supervisors
Ecklund Township
24800 41st St NE
Wilton, ND 58579

John Schulz
1926 South Grandview Lane
Bismarck, ND 58503

Matthew Ponish
National Environmental Compliance USDA
1400 Independence Ave., SW STOP 0513
Washington, DC 20250

Steve Merrill
1110 W. Highland Acres
Bismarck, ND 58501

Chuck Peterson
17850 28th St NW
Baldwin, ND 58521

Jane Beu
Outdoor Recreation Coordinator
National Park Service
601 Riverfront Drive
Omaha, NE 68102

Theodore & Jeanette Adamyk
6750 331st Ave NE
Wilton, ND 58579

Thomas Aichele
5903 253 Ave NE
Baldwin, ND 58521

Robert Anderson
27151 66 St NE
Wilton, ND 58579

David Asplund
16178 W Starlight Dr
Surprise, AR 85374

David Asplund
33401 80th St NE
Wilton, ND 58579

Shirley Ann Berg
4811 Sagebrush Drive
Bismarck, ND 58504

Theresa Aune et al.
577 Coco Palms Ave
Las Vegas, NV 89123-2363

Arvid Backman
3301 Hwy 41
Wilton, ND 58579

David and Calvin Backman
37945 66th St NE
Wilton, ND 58579

Rodney Backman
1858 S Grandview Ln
Bismarck, ND 58503

Sidney & Marlene Backman
3678 Hackberry St
Bismarck, ND 58503

Patrick & Colleen Backman
613 Dakota Ave
Wilton, ND 58579

Morris & Elizabeth Brostrom
802 W. Interstart Ave.
Bismarck, ND 58503

David Asplund Farm LLP
16178 W Starlight Dr
Surprise, AR 85374

David Asplund Farm LLP
33401 80th St NE
Wilton, ND 58579

Alfred Diede
522 N. 24th St.
Bismarck, ND 58501

Catherine Erickson
9802 370th Ave NE
Wilton, ND 58579

Betty Franklund
1127 N 29th St.
Bismarck, ND 58501

Dwight & Marlene Franklund
3854 Renee Drive
Bismarck, ND 58503

Donald, Audrey & Cheryl Fricke
2033 N. Washington St., #9
Bismarck, ND 58501

Mr. or Mrs. Fricke
2033 N Washington St #9
Bismarck, ND 58501

Dean and Mary Ann Goetz
1309 Ridgeview Lane
Bismarck, ND 58501

Eldor and Mavis Goetz
6848 214 Ave NE
Baldwin, ND 58521

Warren Gorden
2711 74th NW
Minot, ND 58703

Warren Gorden
4401 279th Ave. NE
Wilton, ND 58579

Jerry K. Hagstrom
2807 Woodley Road NW
Washington, DC 20008-4115

E. Gene and Vivian Hilken
302 4th Street S
Wilton, ND 58579

James Meyer
22501 41st St NE
Wilton, ND 58579

Archie Johnson
918 Constitution Dr
Bismarck, ND 58501

Daniel & Calvin Johnson
37953 66th St NE
Wilton, ND 58579

Ruth Johnson et al.
36500 52nd St NE
Wilton, ND 58579

Verna Johnson et al.
37953 66th St NE
Wilton, ND 58579

Beatrice & Donald Klein
22350 106 Street NE
Baldwin, ND 58521

Anton & Rose Krush
31501 12 St NE
Wilton, ND 58579

Janet Krzmarzick
2059 50 Ave NW
Garrison, ND 58540

Dean & Lois Larson
5703 318th Ave NE
Wilton, ND 58579

Jeffrey & Richard Leingang
16702 93rd Street NE
Baldwin, ND 58521

Rodney McLachlan
2247 Harding Ave
Bismarck, ND 58501

Dennis F. Meyer
3000 North 14th St Suite 2a
Bismarck, ND 58503

Mary Ann Meyer
513 N. 32nd St.
Bismarck, ND 58501

Wilhelm & Ella Meyer
21700 41 St NE
Wilton, ND 58579

Karen Mund
3800 Connar Dr.
Bismarck, ND 58503

Nathan Speten
5703 318th Ave NE
Wilton, ND 58579

Donald & Pauline Noon
4750 370th Ave NE
Wilton, ND 58579

W Dwane & Roberta Noon
35151 80th St NE
Wilton, ND 58579

Warren & Marjorie Opp
4715 Highway 21 Lark
Flasher, ND 58535

Kenneth & Connie Roehrich
33400 93rd St NE
Wilton, ND 58579

Dr. Gerald Rupp
1745 Montgomery Circle
Longmont, CO 80501

Leonard & Chyral Schaaf
22350 66th Street NE
Baldwin, ND 58521

Roger & Sharon Schroeder
19603 119th St. NE
Baldwin, ND 58521

Milo E. and Alice J. Schuler
27701 26 St NE
Wilton, ND 58579

Louis & Virginia Schumacher
2108 North Washington Street #1
Bismarck, ND 58501

Allen Louis & Robin Schumacher
2908 East Ave C
Bismarck, ND 58501

Toby Sheldon
14400 41st St. NE
Baldwin, ND 58477

Lawrence Sorch
25451 26th Street NE
Wilton, ND 58579

Maxwell Sorch
25752 52nd Street NE
Wilton, ND 58579

Rickey J. Sorch
25451 26th Street NE
Wilton, ND 58579

Robert Sorch
25752 52 St NE
Wilton, ND 58579

Nathan Speten
PO Box 383
Wilton, ND 58579

Gary & Kathleen Speten
114 First St S
Wilton, ND 58579

Jeffrey & Robyn Spitzer
112 3rd St. N
Wilton, ND 58579

John Spitzer
24800 41st St NE
Wilton, ND 58579

Terry & Deborah Vesey
34740 80th St NE
Wilton, ND 58579

Gerald & Arlis Waltos
6901 201st Ave NE
Baldwin, ND 58521

Mr. or Mrs. Weible
975 Homestead Ct.
West Fargo, ND 58078

D. & J. Wulf
1000 W. Century Ave, #386
Bismarck, ND 58503

D. & J. Wulf
2890 104th Court E
Inver Grove Heights, MN 55077

D. & J. Wulf
3375 14th St. NE
Coleharbor, ND 58531

Appendix 2 - Newspaper Ad

We need your input!

Baldwin Wind, LLC is proposing to build a wind energy facility in Burleigh County, near Wilton, North Dakota. The proposed project will include 62 wind turbine generators, an underground power collection system, access roads, and an operations and maintenance facility. Construction of the Baldwin Wind Energy Center is proposed to begin during the summer of 2010.

Because the project area has expanded since the public meeting held in October 2009, Western Area Power Administration will host a second public meeting to get your input on the scope of the Baldwin Wind Energy Center Environmental Assessment. The meeting location is handicapped accessible.

Join us to learn more about this project and to share your ideas:

Wilton School Gym, 504 Dakota Avenue, Wilton, ND 58579

Wednesday, April 7, 2010 from 5pm to 8pm

Need more info?

For more information or to be added to the project mailing list, contact:

Matt Marsh, Environmental Protection Specialist
Western Area Power Administration

PO Box 35800, Billings, MT 59107-5800
Phone: 1-800-358-3415, Fax: (406) 247-7408
Email: mmarsh@wapa.gov

Appendix 3 – Sign-in Sheet and Handouts

Baldwin Wind Energy Center Open House

April 7 2010, 5-8 PM Wilton School Gym

Please Print Clearly

SIGN IN SHEET

NAME	ADDRESS	POSTAL CODE	PHONE #	ADD TO MAILING LIST	
Bernie Schafer	Bismarck ND	58504	391-7745	YES ☐	NO ☒
Shannon Brown		521	220-0713	YES ☐	NO ☐
Robert W Anderson		8579	734-6703	YES ☑	NO ☐
Alan Dawson		503	258-7647	YES ☐	NO ☐
D Aud		521	223-1156	YES ☐	NO ☐
Vonn Spitzer		521		YES ☐	NO ☐
Watson Johnson		579	734-6345	YES ☑	NO ☐
Dani Johnson		579	734-6345	YES ☐	NO ☒
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐

CONFIDENTIAL

Baldwin Wind Energy Center Open House

April 7 2010, 5-8 PM Wilton School Gym

Please Print Clearly

SIGN IN SHEET

NAME	ADDRESS	POSTAL CODE	PHONE #	ADD TO MAILING LIST	
Leonard J. Schaas	23506 67th St NE Baldwin	58552		YES ☒	NO
				YES ☐	NO ☐
		501		YES ☐	NO ☐
		9		YES ☐	NO ☐
		521		YES ☐	NO ☐
		579		YES ☐	NO ☐
		7579		YES ☐	NO ☐
		03		YES ☒	NO ☐
		01		YES ☒	NO ☐
		79		YES ☐	NO ☐
		79		YES ☐	NO ☐
		79		YES ☐	NO ☐
		79		YES ☐	NO ☐
		01		YES ☒	NO ☐

CONFIDENTIAL

Baldwin Wind Energy Center Open House

April 7 2010, 5-8 PM Wilton School Gym

Please Print Clearly

SIGN IN SHEET

NAME	ADDRESS	POSTAL CODE	PHONE #	ADD TO MAILING LIST	
Carol Bailey	23000 132 St. NE	58521	701-255-2424	YES ☒	NO ☐
		03-8856	701-838-7860	YES ☒	NO ☐
		03	701-223-7599	YES ☐	NO ☐
		03	701-223-7599	YES ☐	NO ☐
		40	701-321-5023	YES ☐	NO ☐ office space
		79	701-934-6449	YES ☑	NO ☐
		79	734-6570 ~~6574~~	YES ☐	NO ☐
			701-786-7785	YES ☒	NO ☐
		477	734 6195 wrong 701-286-7795	YES ☑	NO ☐
		579	701-223-0948	YES ☑	NO ☐
		579	701-754-6658	YES ☑	NO ☐
		721	701-258-1069	YES ☐	NO ☐
		521	701-258-1069	YES ☑	NO ☐
		03	701-223-7776	YES ☐	NO ☐

CONFIDENTIAL

Baldwin Wind Energy Center Open House

April 7 2010, 5-8 PM Wilton School Gym

Please Print Clearly

SIGN IN SHEET

NAME	ADDRESS	POSTAL CODE	PHONE #	ADD TO MAILING LIST	
[illegible]	3150 12 ST NE	[illegible]		YES ☐	NO ☐
[illegible]	[illegible]	[illegible]		YES ☒	NO ☐
[illegible]				YES ☐	NO ☐
[illegible]	6901	58521		YES ☐	NO ☐
[illegible]	6901	58521		YES ☐	NO ☐
[illegible]	[illegible]	5849		YES ☐	NO ☒
[illegible]	3110	58497		YES ☒	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐
				YES ☐	NO ☐

CONFIDENTIAL

Baldwin Wind Energy Center

Overview

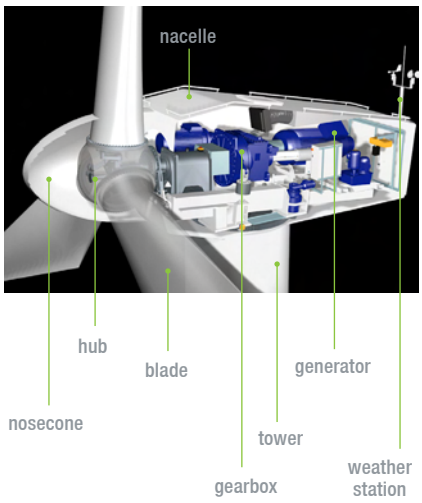
» Located in Burleigh County, North Dakota
» Built, owned, and operated by a subsidiary of NextEra™ Energy Resources
» 99-megawatt wind generation plant
» 66 1.5-megawatt GE turbines that are capable of generating enough electricity to power more than 24,000 homes
» Each turbine is approximately 262 feet tall from the ground to the hub in the center of the blades
» Commercial operation expected to begin in 2010

Benefits

» Expected to employ a staff of 5
» Estimated to pay over $200,000 annually in property taxes
» Estimated to make annual landowner payments of over $600,000
» Creates no air or water pollution
» Uses no water in the generation of electricity
» Allows land to remain in agricultural use

About NextEra™ Energy Resources

» A leading clean energy provider operating wind, natural gas, solar, hydroelectric and nuclear power plants across the nation
» More than 17,000 megawatts of generating capacity in 25 states and Canada
» The largest wind generator in the country with nearly 70 facilities currently in operation
» A subsidiary of FPL Group, Inc., with headquarters in Juno Beach, Florida



How It Works

Wind turbines work on the same principle as a child's pinwheel. When you blow on a pinwheel, the blades of the pinwheel spin around—same with a wind turbine.

When the wind blows against the blades of the wind turbine, the blades slowly rotate. The blades are connected to a drive shaft inside the large box (called a nacelle) seen on the top of the tower. The drive shaft turns the generator, which makes the electricity. Each wind turbine operates independently of the others. Each is, es–sentially, an individual power plant.

The turbine has a weather station on the top that tells it the wind speed and wind direction. That information is sent to the turbine's computer, which moves the top of the turbine (the nacelle and blades) so that the blades are always facing into the wind. The nacelle can turn 360 degrees.

The electricity is carried in cables from the generator down the inside of the tower, then underground to the site's substation. That power then goes into the offsite transmission lines and is used by the local utility to serve its customers in the region.

Baldwin Wind Energy Center Open House
April 7, 2010, 5-8 PM Wilton School Gym
Public Comment Meeting (2)
Environmental Assessment (EA)

Thank you for your interest in the proposed Baldwin Wind Energy Center EA. Please complete the appropriate sections of this form to be included on the EA mailing list and/or to provide comments. Written comments can be submitted at the Scoping Meeting, faxed to (406) 247-7408, mailed to Mr. Matt Marsh, Western Area Power Administration, Upper Great Plains Customer Service Office, P.O. Box 35800, Billings, MT 59107-5800 or sent to the **NEPA Document Manager at mmarsh@wapa.gov.** To be included in our public comment process, please ensure your comments are postmarked or turned in by **April 21, 2010.**

- ☐ I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.
- ☐ I prefer electronic/email communication.
- ☐ I prefer paper mailings.

Please Print Contact Info Below

Name:	Organization:
E-mail address:	Daytime Phone No. (*optional):*
Street Address:	City / State / Zip Code:

Please indicate any questions, comments or concerns you have about the proposed agreement modification in the comment section below (continue on separate sheet if necessary).

Thank you for your time and interest.

Please fold in thirds and tape

Place postage here

Mr. Matt Marsh
NEPA Document Manager
Western Area Power Administration
Upper Great Plains Region
P.O. Box 35800
Billings, MT 59107-5800

Figure 1.
Baldwin Wind Resource Area Vicinity Map

Burleigh and McLean Counties,
North Dakota

MCLEAN COUNTY

BURLEIGH COUNTY

L E G E N D

Baldwin Turbine Array

- Turbine Site
- Alternate Turbine Site
- Service Road
- Collection Line
- County Boundary
- State Boundary
- Highway
- Major Road
- Local Road
- PLSS Section Boundary

Data Sources:
National Geographic Topo Maps
ESRI Streetmap 9.3

0 0.5 1 1.5 2
Miles

File: P:\FPL Energy\Dakotas\Contract 3935 Baldwin - Burleigh County ND\GIS and Figures\GIS\Spatial\MXD\Baldwin_VicinityMap_AgencyLetter.mxd
Prepared By: william.scales
Coordinate System: NAD 1983 UTM Zone 14N

L O C A T I O N M A P

Appendix 4 – Project Maps

Figure 1.
Baldwin Wind Resource Area Vicinity Map

Burleigh and McLean Counties,
North Dakota

MCLEAN COUNTY

BURLEIGH COUNTY

L E G E N D

Baldwin Turbine Array

- Turbine Site
- Alternate Turbine Site
- Service Road
- Collection Line
- County Boundary
- State Boundary
- Highway
- Major Road
- Local Road
- PLSS Section Boundary

Data Sources:
National Geographic Topo Maps
ESRI Streetmap 9.3

0 0.5 1 1.5 2
Miles

File: P:\FPL Energy\Dakotas\Contract 3935 Baldwin - Burleigh County ND\GIS and Figures\GIS\Spatial\MXD\Baldwin_VicinityMap_AgencyLetter.mxd
Prepared By: william.scales
Coordinate System: NAD 1983 UTM Zone 14N

L O C A T I O N M A P

Figure 1.
Baldwin Wind Resource Area Vicinity Map

Burleigh and McLean Counties,
North Dakota

MCLEAN COUNTY

BURLEIGH COUNTY

L E G E N D

Baldwin Turbine Array

- Turbine Site
- Alternate Turbine Site
- Service Road
- Collection Line
- County Boundary
- State Boundary
- Highway
- Major Road
- Local Road
- PLSS Section Boundary

Data Sources:
National Geographic Topo Maps
ESRI Streetmap 9.3

0 0.5 1 1.5 2
Miles

File: P:\FPL Energy\Dakotas\Contract 3935 Baldwin - Burleigh County ND\GIS and Figures\GIS\Spatial\MXD\Baldwin_VicinityMap_AgencyLetter.mxd
Prepared By: william.scales
Coordinate System: NAD 1983 UTM Zone 14N

L O C A T I O N M A P

Appendix 5 – Photos

Photo 1 Attendees at April Scoping Meeting

Photo 2 Baldwin Wind representatives discussing Project with Attendees

APPENDIX C

Agency Correspondence and Public Comments

TETRA TECH

September 21, 2009

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

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Taborsky:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

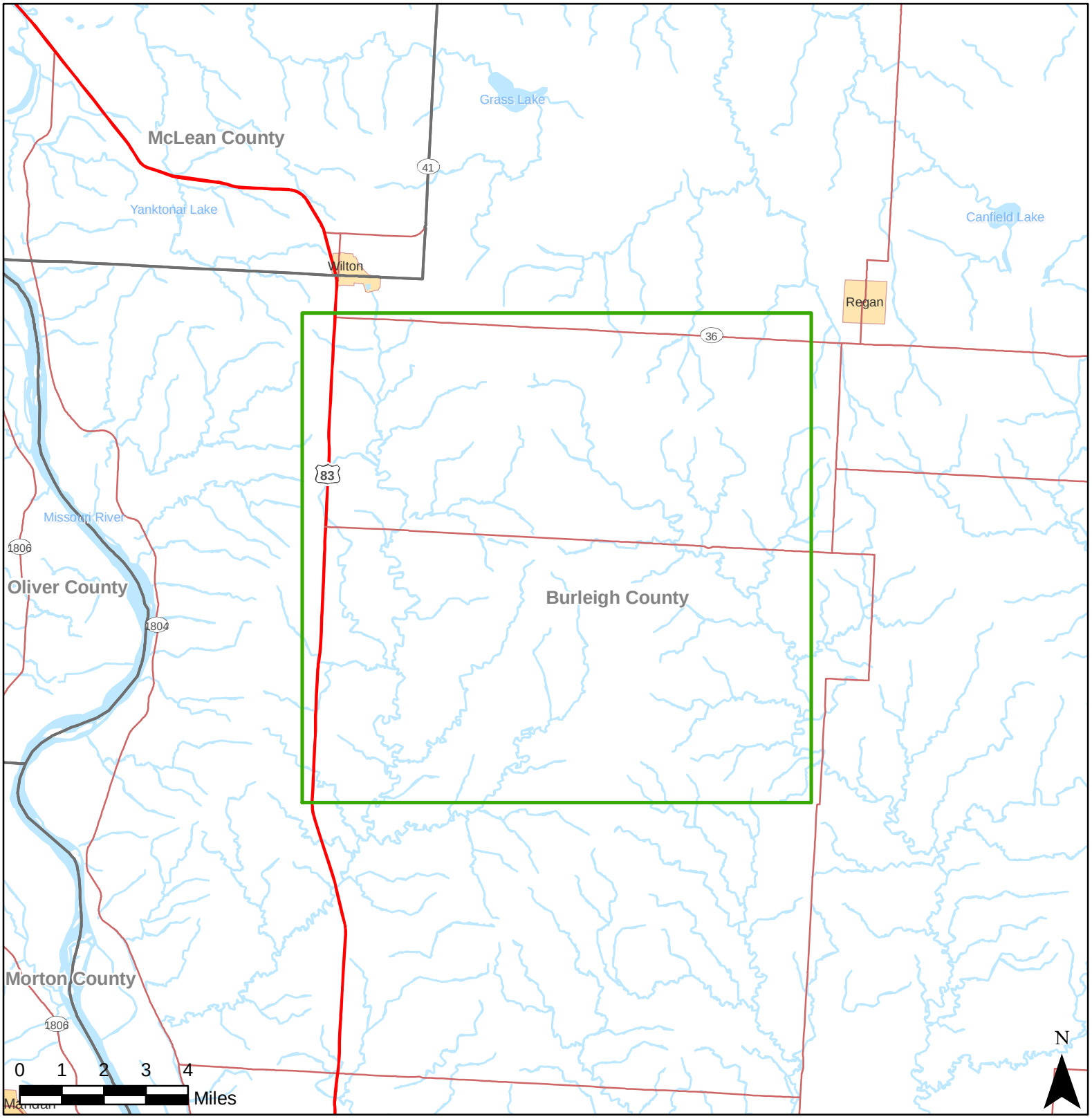
This information will be used as an initial step to help guide project development in a manner that identifies and avoids impacts to sensitive resources where practicable. We have sent similar query letters to other agencies including, but not limited to, the US Fish and Wildlife Service, US Army Corps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

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757



TETRA TECH EC, INC.

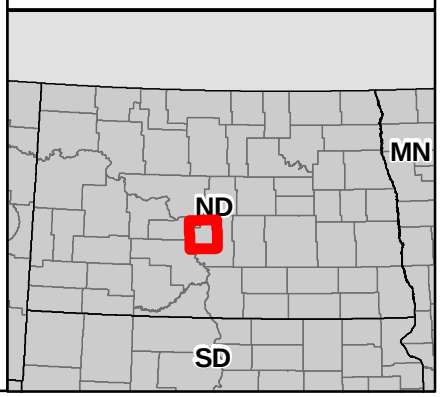
FIGURE 1
PROJECT LOCATION MAP
BURLEIGH COUNTY,
NORTH DAKOTA

SEPTEMBER 2009

Legend

- Proposed Project Area
- Primary Limited Access or Interstate
- Primary US and State Highways
- Secondary State and County
- Lake
- River
- City
- County Boundary

OVERVIEW MAP



TETRA TECH

September 21, 2009

Mr. Paul Govig
Director
North Dakota Department of Commerce, Division of Community Services
1600 East Century Avenue, Suite 2
PO Box 2057
Bismarck, ND 58502-2057

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Govig:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

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

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Goehring:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

Mr. Wayne Kutzer
Director
North Dakota Department of Career and Technical Education
State Capitol 15th Floor
600 East Boulevard Avenue, Department 270
Bismarck, North Dakota 58505-0610

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Kutzer:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

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

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Dr. Dwelle:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

Ms. Carol K. Olson
Executive Director
North Dakota Department of Human Services
600 East Boulevard Avenue, Department 325
Bismarck, North Dakota 58505-0250

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Ms. Olson:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

Ms. Lisa Fair McEvers
Commissioner of Labor
North Dakota Department of Labor
600 East Boulevard Avenue, Department 406
Bismarck, North Dakota 58505-0340

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Ms. McEvers:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

Paul Lucy
Director
North Dakota Department of Commerce
Economic Development & Finance Division
P.O. Box 2057
Bismarck, North Dakota 58502-2057

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Lucy:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

Mr. Kevin Levi
District Engineer
North Dakota Department of Transportation, Bismarck District
218 South Airport Road
Bismarck, ND 58504-6003

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Levi:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

Mr. Gary D. Preszler
Commissioner
North Dakota State Land Department
P. O. Box 5523
Bismarck, North Dakota 58506-5523

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Preszler:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

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

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Frink:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

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

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Steinwand:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Parks and Recreation Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

Mr. Edward C. Murphy
State Geologist
North Dakota Geological Survey
1016 East Calgary Ave
Bismarck, North Dakota 58503

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Murphy:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

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

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Davis:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

Mr. Douglass A. Prchal
Director
North Dakota Parks and Recreation Department
1600 E. Century Ave, Suite 3
Bismarck, North Dakota 58503

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Prchal:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

Ms. Linn Berg
Chair
Burleigh County Soil Conservation District
916 East Interstate Avenue Suite 6
Bismarck, ND 58503

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Ms. Berg:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

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

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Paaverud:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

Per Section 69-06-01-05 of the North Dakota Public Service Commission (PSC)'s administrative rules, we are consulting the State Historical Society of North Dakota for assistance in identifying concerns or issues within the boundaries of the tracts listed below that would influence a decision regarding the use of the land, as well as applicable permits that may be required from your office. A Class I file search and Class III pedestrian survey will be conducted for this project.

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, US Army Corps of Engineers, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

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

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Cimarosti:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 US Fish and Wildlife Service, State Historical Society of North Dakota, and North Dakota Game and Fish Department.

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

TETRA TECH

September 21, 2009

Mr. Terry Ellsworth
USFWS North Dakota Field Office
3425 Miriam Avenue
Bismarck, North Dakota 58501-7926

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Ellsworth:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 State Historical Society of North Dakota, U.S. Army Corps of Engineers, and North Dakota Game and Fish Department.

We have already been in communication with the USFWS Habitat and Population Evaluation Team (HAPET) to identify waterfowl production areas (WPAs) and grassland, wetland, and conservation easements within the Project boundary; none were identified.

Various biological surveys have been completed in or near this Project area (see Appendix 1).

Those studies include the following:

- Spring and Fall Avian Surveys
- Whooping Crane Likelihood Assessment

Other biological surveys that are underway include:

- Native Prairie Survey
- Wetlands Delineation

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

Appendix 1: Summary of Surveys Conducted to Date

Fall and Spring Avian Surveys

NextEra Energy Resources contracted Western Ecosystems Technology, Inc. to conduct surveys and monitor wildlife resources in the Project Area to estimate the impacts of project construction and operations on wildlife. The following document contains results for fixed-point bird use surveys, raptor nest surveys, and incidental wildlife observations. The principal objective of the study was to provide site specific bird resource and use data that would be useful in evaluating potential impacts from the wind-energy facility.

The objective of the fixed-point bird use surveys was to estimate the seasonal, spatial, and temporal use of the Project Area by birds, particularly raptors. Fixed-point surveys were conducted from September 17 through November 4, 2008, and March 18 through June 25, 2009 at 18 points established throughout the Project Area. A total of 414 twenty-minute fixed-point surveys were completed and 76 bird species were identified.

Waterfowl use was highest during the spring (3.33 birds/plot/20-min survey), primarily due to high use by Canada geese. Raptor use was highest during the summer (0.46 birds/plot/20-min survey) and lowest during the fall (0.20). The most common raptors observed in the Wilton Expansion Wind Resource Area were red-tailed hawk and northern harrier. Passerines had use ranging from 2.15 birds/plot/20-minute survey in summer to 0.66 in fall; although the focus was within a100-meter viewshed and is not directly comparable to the other bird types.

During the study, 237 single or groups of large birds totaling 1,774 individuals were observed flying during fixed-point bird use surveys. For all large bird species combined, 18.3 percent of birds were observed flying below the likely zone of risk, 48.9% were within the zone of risk, and 32.8 percent were observed flying above the zone of risk for typical turbines that could be used in the Project Area. Bird types most often observed flying within the turbine zone of risk were waterfowl (82.9%), large corvids (53.5%), and raptors (43.4%). A total of 297 passerines and other small birds in 134 groups were recorded flying within 100 meters of the survey plots in the proposed Project Area, with 99.0 percent below the zone of risk, 1.0 percent within the zone of risk, and none observed above the zone of risk.

The data collected during this study suggests that the Project Area may occasionally receive substantial use by waterfowl, but does not appear to be within a major migratory pathway for raptors. In addition, the study area does not appear to provide important stopover habitat for migrant songbirds based on fixed-point bird use surveys. Construction and operation of the wind-energy facility may displace some types of birds. Siting turbines within altered habitats (crop fields) to the extent possible will reduce potential impacts of bird displacement.

The objective of the raptor nest mapping was to record raptor nests that may be subject to disturbance and/or displacement by wind-energy facility construction and/or operation. Ground based surveys were conducted in conjunction with bird use surveys in March and April. The surveys were conducted prior to leaf-out to improve the chances of finding nests. A total of 16 raptor nests (five active) were recorded in or within 0.25 mi of the Project Area. One active nest was in the construction path and had a ¼ mi “no disturbance” buffer placed around it until it was no longer active.

The objective of incidental wildlife observations was to provide record of wildlife seen outside of the standardized surveys. The most abundant large bird species recorded incidentally was sandhill crane.

Some species considered to be sensitive or of conservation concern by the state of North Dakota were observed within the Project Area. During all surveys and incidental observations, 17 sensitive species were observed. This is a tally that in some cases represents repeated observations of the same individual. These species have greater potential to occur in non-cropland areas, such as grasslands. Some potential exists for wind turbines to displace these species within non-cropland habitats. Research concerning displacement impacts of wind-energy facilities are limited, but some show the potential for small scale displacement of 591 feet (180 meters) or less, while impacts to densities of birds at larger scales has not been shown. Two bird species of primary interest to wind energy development in the central and north-central United States are whooping cranes and sharp-tailed grouse. No whooping cranes or sharp-tailed grouse leks (individual grouse were observed) were recorded in the Project Area. However, the location, presence of suitable habitat, and presence of similar species indicates that both whooping cranes and sharp-tailed grouse leks could be found within the project area at some point.

Whooping Crane Likelihood Assessment

NextEra Energy Resources contracted Tetra Tech to conduct a desktop likelihood assessment for the Baldwin Project Area. The analysis is based on three factors: (1) the location of the Project in the crane migration corridor; (2) the attractiveness of the landscape; and (3) historical observations of whooping cranes. The likelihood of whooping cranes occurring in the Baldwin Project Area is low, despite the Project Area's position in the central portion of the whooping crane migration corridor. The major factor that contributed to this assessment was the lower proportion of suitable wetland habitat within the Project Area than the surrounding area. There were no recorded observations of whooping cranes within the Project Area. A total of 79 observations occurred within the 35-mile buffer area around the Project Area.

TETRA TECH

September 21, 2009

Mr. Ed Meendering
USFWS Long Lake Wetland Management District
12000 353rd Street SE
Moffit, ND 58560-9704

RE: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Mr. Ellsworth:

Tetra Tech has been contracted by NextEra Energy Resources, LLC to prepare an application for a Certificate of Site Compatibility, in accordance with Section 49-22-07 NDCC. As part of that application, we are conducting an investigation of property in Burleigh County, southeast of Wilton, North Dakota as a potential location for the proposed Baldwin Wind Energy Center. This proposed project would consist of 99 megawatts (MW), operated at a 49.5 MW annual average. The proposed project area is shown in the attached figure is the primary focus of our investigation.

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

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

County	Township	Range	Sections
Burleigh	141N	78W	19
	141N	79W	2-5, 8-15, 24
	142N	79W	19-23, 26-30
	142N	80W	25

This information will be used as an initial step 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 State Historical Society of North Dakota, U.S. Army Corps of Engineers, and North Dakota Game and Fish Department.

We have already been in communication with the USFWS Habitat and Population Evaluation Team (HAPET) to identify waterfowl production areas (WPAs) and grassland, wetland, and conservation easements within the Project boundary; none were identified.

Various biological surveys have been completed in or near this Project area (see Appendix 1).

Those studies include the following:

- Spring and Fall Avian Surveys
- Whooping Crane Likelihood Assessment

Other biological surveys that are underway include:

- Native Prairie Survey
- Wetlands Delineation

We would appreciate a response by October 23, 2009. Please contact me at (512) 338-1667 if you have any questions.

Thank you for your assistance.

Respectfully submitted,

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

Appendix 1: Summary of Surveys Conducted to Date

Fall and Spring Avian Surveys

NextEra Energy Resources contracted Western Ecosystems Technology, Inc. to conduct surveys and monitor wildlife resources in the Project Area to estimate the impacts of project construction and operations on wildlife. The following document contains results for fixed-point bird use surveys, raptor nest surveys, and incidental wildlife observations. The principal objective of the study was to provide site specific bird resource and use data that would be useful in evaluating potential impacts from the wind-energy facility.

The objective of the fixed-point bird use surveys was to estimate the seasonal, spatial, and temporal use of the Project Area by birds, particularly raptors. Fixed-point surveys were conducted from September 17 through November 4, 2008, and March 18 through June 25, 2009 at 18 points established throughout the Project Area. A total of 414 twenty-minute fixed-point surveys were completed and 76 bird species were identified.

Waterfowl use was highest during the spring (3.33 birds/plot/20-min survey), primarily due to high use by Canada geese. Raptor use was highest during the summer (0.46 birds/plot/20-min survey) and lowest during the fall (0.20). The most common raptors observed in the Wilton Expansion Wind Resource Area were red-tailed hawk and northern harrier. Passerines had use ranging from 2.15 birds/plot/20-minute survey in summer to 0.66 in fall; although the focus was within a100-meter viewshed and is not directly comparable to the other bird types.

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North Dakota
DEPARTMENT OF COMMERCE

Community Services Economic Development & Finance Tourism Workforce Development

September 30, 2009

Anne-Marie Griger
Tetra Tech EC, Inc.
7800 Shoal Creek Blvd., Suite 253 East
Austin, TX 78757

RE: Baldwin Wind Energy Center Project, Burleigh County, ND

Dear Ms. Griger:

This office supports the development of the proposed wind energy center for the above referenced project.

While we are not aware of any environmental property, concerns, or issues within the boundaries of the proposed project, we would defer to the North Dakota Game & Fish Dept., the ND Parks & Recreation Dept., the State Historical Society of North Dakota, and the North Dakota Health Dept. for their input. According to your letter it appears you have already initiated this process.

The North Dakota Public Service Commission is the authority which issues permits for locating power plant and transmission lines within the state.

With regards to land use, approvals are granted by the local land use/zoning authorities.

Sincerely,

Paul T. Govig, Director
ND Division of Community Services

John Hoeven
Governor

Lisa K. Fair McEvers
Commissioner

NORTH DAKOTA
Department of
LABOR

State Capitol - 13th Floor
600 E Boulevard Ave Dept 406
Bismarck, ND 58505-0340

nd.gov/labor
nd.gov/humanrights

September 29. 2009

Ms. Anne-Marie Griger, AICP
Tetra Tech, EC Inc.
7800 Shoal Creek Blvd. Suite 253 East
Austin, TX 78757

Re: Application to North Dakota Public Services Commission for Certificate of Site Compatibility for Baldwin Wind Energy Center in Burleigh County, North Dakota

Dear Ms. Griger,

Thank you for your letter of September 21, 2009, inquiring about assistance in identifying concerns or issues relating to the project you described. The Department of Labor enforces wage and hours laws, investigates allegations of discrimination in employment, housing, public services, public accommodations and credit transactions.

The Department of Labor takes no position on your project, as I am unable to identify any concerns relating to the authority granted to the department.

Sincerely yours,

Lisa K. Fair McEvers
Commissioner

North Dakota Department of Transportation

Francis G. Ziegler, P.E.
Director

John Hoeven
Governor

September 28, 2009

Anne-Marie Griger, AICP
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, TX 78757

APPLICATION TO NORTH DAKOTA PUBLIC SERVICES COMMISSION FOR CERTIFICATE OF SITE COMPATIBILITY FOR BALDWIN WIND ENERGY CENTER IN BURLEIGH COUNTY, NORTH DAKOTA

Permits must be obtained for any work done on North Dakota Department of Transportation right of way.

Permits must also be obtained from the North Dakota Highway Patrol for all overweight vehicles.

Kevin J. Levi (RS)
KEVIN J. LEVI – BISMARCK DISTRICT ENGINEER

rs

218 Airport Road • Bismarck, North Dakota 58504-6003
Information: (701) 328-6950 • FAX: (701) 328-6933 • TTY: (701) 328-4156 • www.dot.nd.gov

NORTH DAKOTA
DEPARTMENT of HEALTH

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

September 29, 2009

Anne-Marie Griger, AICP
Tetra Tech EC, Inc.
7800 Shoal Creek Blvd., Ste 253 East
Austin, TX 78757

Re: Baldwin Wind Energy Center, Burleigh County

Dear Ms. Griger:

This department has reviewed the information concerning the above-referenced project submitted to Dr. Terry Dwelle under date of September 21, 2009, 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 or counties 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.

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.

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

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.

NORTH DAKOTA
DEPARTMENT of HEALTH

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

Construction and Environmental Disturbance Requirements

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

Soils

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

Surface Waters

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

Fill Material

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

"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

October 13, 2009

Anne-Marie Griger, AICP
Tetra Tech, EC Inc.
7800 Shoal Creek Blvd, Suite 253 East
Austin, TX 78757

Dear Ms. Griger:

RE: Baldwin Wind Energy Center – Burleigh County, North Dakota

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

Our 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.

National Wetland Inventory maps indicate numerous wetlands 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 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 as other wind power projects are developed in North Dakota. If possible, we would also like the GPS coordinates for each turbine after the site has been established.

Sincerely,

Michael G. McKenna
Chief
Conservation & Communication Division

js

North Dakota Geological Survey

Edward C. Murphy - State Geologist

Department of Mineral Resources

Lynn D. Helms - Director

North Dakota Industrial Commission

https://www.dmr.nd.gov/ndgs/

September 29, 2009

Ms. Anne-Marie Griger
Tetra Tech, EC Inc
7800 Shoal Creek Blvd, Suite 253 East
Austin, Texas 78757

RE: Application to ND PSC for Baldwin Wind Energy Center Certificate of Compatibility

Dear Ms. Griger:

I have reviewed the information that you sent me regarding NextEra Energy Resources application to the ND PSC for Baldwin Wind Energy Center Certificate of Compatibility. Enclosed is a map showing the mineable coal deposits and the suspected locations of abandoned underground coal mines in sections 19-23 in T142N, R79W. My maps did not show economically mineable coal or underground coal mines in the other three areas that were listed in your letter. However, the ND Public Service Commission is responsible for abandoned coal mines and should be consulted about the specific locations of old mines in this area.

Please contact me if you have any questions.

Sincerely,

Edward C. Murphy
State Geologist

encl.

600 E Boulevard Ave - Dept 405, Bismarck, North Dakota 58505-0840 Phone (701)328-8000 Fax (701)328-8010

John Hoeven, Governor
Douglass A. Prchal, Director

1600 East Century Avenue, Suite 3
Bismarck, ND 58503-0649
Phone 701-328-5357
Fax 701-328-5363
E-mail parkrec@nd.gov
www.parkrec.nd.gov

October 15, 2009

Anne-Marie Griger
Tetra Tech
7800 Shoal Creek Blvd, Suite 253 East
Austin, TX 78757

Re: Baldwin Wind Energy Center Project

Dear Ms. Griger:

The North Dakota Parks and Recreation Department has reviewed the above referenced project proposal to construct a wind energy center located in Section 19, T141N, R78W; Sections 2-5, 8-15, and 24, T141N, R79W; Sections 19-23 and 26-30, T142N, R79W; and Section 25, T142N, R80W; Burleigh County.

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

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 known occurrences within or adjacent to the 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.

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.

Regarding any reclamation efforts, we recommend that any impacted areas be revegetated with species native to the project area.

Thank you for the opportunity to comment on this project. Please contact Kathy Duttenhefner (701-328-5370 or kgduttenhefner@nd.gov) of our staff if additional information is needed.

Sincerely,

Jesse Hanson

Jesse Hanson, Coordinator
Planning and Natural Resources Division

R.USNDNHI*2009-267

STATE HISTORICAL SOCIETY OF NORTH DAKOTA

September 30, 2009

Ms. Anne-Marie Griger, AICP
Tetra-Tech, EC Inc.
7800 Shoal Creek Blvd, Suite 253 East
Austin TX 78757

ND SHPO REF: 09-1801 PSC NwxtERa Energy Resources Baldwin Wind Energy Center in portions of [T141N R78W Section 19; T141N R79W Sections 2-5, 8-15, 24; T142N R79W Sections 19-23, 26-30; and T142N R80W Section 25] Burleigh County, North Dakota

Dear Ms. Griger,

We received ND SHPO REF: 09-1801 PSC Baldwin Wind Energy Center in portions of [T141N R78W Section 19; T141N R79W Sections 2-5, 8-15, 24; T142N R79W Sections 19-23, 26-30; and T142N R80W Section 25] Burleigh County, North Dakota. We recommend a Class I (file search) of the project areas followed by a Class III (pedestrian) survey, following review by this office.

Thank you very much for the opportunity to review this project to date. We look forward to further review of the Class I and Class III reports. If you have any questions please contact Susan Quinnell, Review and Compliance Coordinator at (701) 328-3576, e-mail squinnell@nd.gov

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and
Director
State Historical Society of North Dakota

C: Patrick Fahn, PSC

REPLY TO
ATTENTION OF

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

September 28, 2009

North Dakota Regulatory Office

Tetra Tech, EC Inc
ATTN: Anne-Marie Griger, AICP
7800 Shoal Creek Boulevard, Suite 253 East
Austin, Texas 78757

Dear Ms. Griger:

This is in response to your September 21, 2009 request for comments concerning proposed construction of the Baldwin Wind Energy Center by **NextEra Energy Resources, LLC. (NextEra)**. We have assigned Project Number (NWO-2009-2393-BIS) to your request. Please reference this number when you write or call us regarding your proposal.

Corps Regulatory Offices administer Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Section 10 regulates work in or affecting navigable waters. This would include work over, through or under Section 10 waters. For your information, Section 10 waters in North Dakota include: the entire Missouri River system, including Lake Sakakawea and Lake Oahe; the Yellowstone River from the North Dakota/Montana border to its mouth; Upper Des Lacs Lake; Red River of the North; Bois De Sioux; and James River from Jamestown south to the North Dakota/South Dakota border. Section 404 regulates the discharge of dredged or fill material, either temporarily or permanently, into waters of the United States. Water 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 or materials used to create any structure or infrastructure in waters of the United States.

If you think your project may require a Section 10 and/or Section 404 permit, please complete and submit the enclosed permit application to our office for review and authorization prior to construction. It is essential to identify impacts to waters of the United States resulting from the project.

Although engineering drawings are not required, when preparing the needed information, please bear in mind that it must clearly and accurately depict your project activity. Dimensions and quantities are key information needed for evaluation. Various Federal, state and local officials, and members of the general public may be provided the information and asked to comment.

If you have any questions regarding this letter or our program, please do not hesitate to write me at the above address, or call this office at (701) 255-0015.

Sincerely,

Toni R. Erhardt
Project Manager
North Dakota Regulatory Office

Enclosure

Instructions for Preparing a Department of the Army Permit Application

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

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

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

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

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

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

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

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

Block 12. Proposed Project Name or Title. Please provide name identifying the proposed project, e.g., Landmark Plaza, Burned Hills Subdivision, or Edsall Commercial Center.

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

Block 14. Proposed Project Street Address. If the proposed project is located at a site having a street address (not a box number), please enter it here.

Block 15. Location of Proposed Project. Enter the latitude and longitude of where the proposed project is located. If more space is required, please attach a sheet with the necessary information marked Block 15.

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

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

Block 18. Nature of Activity. Describe the overall activity or project. Give appropriate dimensions of structures such as wing walls, dikes (identify the materials to be used in construction, as well as the methods by which the work is to be done), or excavations (length, width, and height). Indicate whether discharge of dredged or fill material is involved. Also, identify any structure to be constructed on a fill, piles, or float-supported platforms.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 18.

Block 19. Proposed Project Purpose. Describe the purpose and need for the proposed project. What will it be used for and why? Also include a brief description of any related activities to be developed as the result of the proposed project. Give the approximate dates you plan to both begin and complete all work.

Block 20. Reasons for Discharge. If the activity involves the discharge of dredged and/or fill material into a wetland or other waterbody, including the temporary placement of material, explain the specific purpose of the placement of the material (such as erosion control).

Block 21. Types of Material Being Discharged and the Amount of Each Type in Cubic Yards. Describe the material to be discharged and amount of each material to be discharged within Corps jurisdiction. Please be sure this description will agree with your illustrations. Discharge material includes: rock, sand, clay, concrete, etc.

Block 22. Surface Areas of Wetlands or Other Waters Filled. Describe the area to be filled at each location. Specifically identify the surface areas, or part thereof, to be filled. Also include the means by which the discharge is to be done (backhoe, dragline, etc.). If dredged material is to be discharged on an upland site, identify the site and the steps to be taken (if necessary) to prevent runoff from the dredged material back into a waterbody. If more space is needed, attach an extra sheet of paper marked Block 22.

Block 23. Description of Avoidance, Minimization, and Compensation. Provide a brief explanation describing how impacts to waters of the United States are being avoided and minimized on the project site. Also provide a brief description of how impacts to waters of the United States will be compensated for, or a brief statement explaining why compensatory mitigation should not be required for those impacts.

Block 24. Is Any Portion of the Work Already Complete? Provide any background on any part of the proposed project already completed. Describe the area already developed, structures completed, any dredged or fill material already discharged, the type of material, volume in cubic yards, acres filled, if a wetland or other waterbody (in acres or square feet). If the work was done under an existing Corps permit, identity the authorization, if possible.

Block 25. Names and Addresses of Adjoining Property Owners, Lessees, etc., Whose Property Adjoins the Project Site. List complete names and full mailing addresses of the adjacent property owners (public and private) lessees, etc., whose property adjoins the waterbody or aquatic site where the work is being proposed so that they may be notified of the proposed activity (usually by public notice). If more space is needed, attach an extra sheet of paper marked Block 24.

Information regarding adjacent landowners is usually available through the office of the tax assessor in the county or counties where the project is to be developed.

Block 26. Information about Approvals or Denials by Other Agencies. You may need the approval of other federal, state, or local agencies for your project. Identify any applications you have submitted and the status, if any (approved or denied) of each application. You need not have obtained all other permits before applying for a Corps permit.

Block 27. Signature of Applicant or Agent. The application must be signed by the owner or other authorized party (agent). This signature shall be an affirmation that the party applying for the permit possesses the requisite property rights to undertake the activity applied for (including compliance with special conditions, mitigation, etc.).

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross-Section Map. Identify each illustration with a figure or attachment number.

Please submit one original, or good quality copy, of all drawings on 8½ x11 inch plain white paper (electronic media may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations.

Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross-section). **While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.**

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT *(33 CFR 325)*	OMB APPROVAL NO. 0710-0003 EXPIRES: 31 August 2012

Public reporting burden for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

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

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

(ITEMS BELOW TO BE FILLED BY APPLICANT)

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

STATEMENT OF AUTHORIZATION

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

_____ _____

APPLICANT'S SIGNATURE DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)

13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable) Address
15. LOCATION OF PROJECT Latitude: °N Longitude: °W	City - State – Zip -

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)
State Tax Parcel ID Municipality
Section – Township – Range –

17. DIRECTIONS TO THE SITE

18. Nature of Activity (Description of project, include all features)

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres

Or

Liner Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

24. Is Any Portion of the Work Already Complete? Yes ☐ No ☐ IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list).

Address –

City – State – Zip –

26. List of Other Certifications or Approvals/Denials Received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT _____ DATE _____ SIGNATURE OF AGENT _____ DATE _____

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

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

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

October 28, 2009

Anne Marie Griger
Tetra Tech
7800 Shoal Creek Blvd, STE 253 E
Austin, TX 78757

Dear Ms. Griger:

This is in response to your request for review of environmental impacts associated with the Compatibility for Baldwin Wind Energy Center in Burleigh County, ND.

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

- The property is not located in an identified floodplain and it is believed the project will not affect an identified floodplain.

- All waste material associated with the project must be disposed of properly and not placed in identified floodway areas.

- No sole-source aquifers have been designated in ND.

There are no other concerns associated with this project that affect State Water Commission or State Engineer regulatory responsibilities.

Thank you for the opportunity to provide review comments. If you have any questions, please call me at 328-4969.

Sincerely,

Larry Knudtson
Research Analyst

LJK:ds/1570

United States Department of the Interior

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

DEC 8 2009

Mr. Nicholas J. Stas
Environmental Manager
Wester Area Power Administration
Upper Great Plains Customer Service Region
Billings, Montana 59107-5800

Dear Mr. Stas:

This is in response to your October 28, 2009, letter requesting U.S. Fish and Wildlife Service (Service) participation as a cooperating agency in the preparation of an environmental assessment (EA) by the Western Area Power Administration (Western) for a proposed 99 megawatt (MW) Baldwin Wind Energy Center Project consisting of construction and operation of 66 wind turbines in Burleigh County, North Dakota, by Next Era Energy Resources. The Service accepts your invitation to be a cooperating agency and we look forward to working with Western in the preparation of the NEPA document for the subject wind power project.

If you require further information, please have your staff contact Terry Ellsworth of my staff, or contact me directly, at (701) 250-4481, or at the letterhead address.

Sincerely,

Jeffrey K. Towner

Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

"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

November 11, 2009

Matt Marsh
Environmental Protection Specialist
Upper Great Plains Region
Western Area Power Administration
PO Box 35800
Billings, MT 59107-5800

Dear Mr. Marsh:

RE: Baldwin Wind Energy Center Project EA

Our 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.

National Wetland Inventory maps indicate numerous wetlands 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 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 as other wind power projects are developed in North Dakota.

Sincerely,

Steve Dyke

(for) Michael G. McKenna
Chief
Conservation & Communication Division

js

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

REPLY TO
ATTENTION OF

October 20, 2009

North Dakota Regulatory Office [NWO-2009-2511-BIS]

Department of Energy, WAPA
Attn: Matt Marsh, Project Manager
Upper Great Plains Customer Service Region
P.O. Box 35800
Billings, Montana 59107-5800

Dear Mr. Marsh:

This is in response to a letter received October 2, 2009 requesting Department of the Army, U.S. Army Corps of Engineers (Corps) comments regarding the construction of a 66 wind turbine energy development north of the city of Baldwin in southern Burleigh County, North Dakota by Baldwin Wind Energy Center, LLC (Baldwin Wind).

Corps regulatory offices administer Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Section 10 of the Rivers and Harbors Act regulates work impacting navigable waters. Work over, in, or under navigable waters is considered to have an impact. Section 404 of the Clean Water Act regulates the discharge of dredge or fill material (temporarily or permanently) in waters of the United States. Waters of the United States may include, but are not limited to, rivers, streams, ditches, coulees, lakes, ponds, and their adjacent wetlands. Fill material includes, but is not limited to, rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mines or other excavation activities and materials used to create any structure or infrastructure in the waters of the United States.

Please submit a location map and completed Corps permit application (copy enclosed) describing all proposed work and construction methodology, to the letterhead address if a Section 10/404 permit is required.

Do not hesitate to contact this office by letter or telephone (701-255-0015) if we can be of further assistance.

Sincerely,

Daniel E. Cimarosti
Regulatory Program Manager
North Dakota

Enclosure

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT *(33 CFR 325)*	OMB APPROVAL NO. 0710-0003 EXPIRES: 31 August 2012

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7. APPLICANT'S PHONE NOs. W/AREA CODE. a. Residence b. Business c. Fax	10. AGENT'S PHONE NOs. W/AREA CODE a. Residence b. Business c. Fax

STATEMENT OF AUTHORIZATION

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APPLICANT'S SIGNATURE DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)

13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable) Address
15. LOCATION OF PROJECT Latitude: °N Longitude: °W	City - State – Zip -

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)
State Tax Parcel ID Municipality
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17. DIRECTIONS TO THE SITE

18. Nature of Activity (Description of project, include all features)

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

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22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres

Or

Liner Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

24. Is Any Portion of the Work Already Complete? Yes ☐ No ☐ IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list).

Address –

City – State – Zip –

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AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

* Would include but is not restricted to zoning, building, and flood plain permits

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SIGNATURE OF APPLICANT _____ DATE _____ SIGNATURE OF AGENT _____ DATE _____

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

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

Instructions for Preparing a
Department of the Army Permit Application

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

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

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

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

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

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

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

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

Block 12. Proposed Project Name or Title. Please provide name identifying the proposed project, e.g., Landmark Plaza, Burned Hills Subdivision, or Edsall Commercial Center.

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

Block 14. Proposed Project Street Address. If the proposed project is located at a site having a street address (not a box number), please enter it here.

Block 15. Location of Proposed Project. Enter the latitude and longitude of where the proposed project is located. If more space is required, please attach a sheet with the necessary information marked Block 15.

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

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

Block 18. Nature of Activity. Describe the overall activity or project. Give appropriate dimensions of structures such as wing walls, dikes (identify the materials to be used in construction, as well as the methods by which the work is to be done), or excavations (length, width, and height). Indicate whether discharge of dredged or fill material is involved. Also, identify any structure to be constructed on a fill, piles, or float-supported platforms.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 18.

Block 19. Proposed Project Purpose. Describe the purpose and need for the proposed project. What will it be used for and why? Also include a brief description of any related activities to be developed as the result of the proposed project. Give the approximate dates you plan to both begin and complete all work.

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
P.O. Box 1458
Bismarck, ND 58502-1458

October 19, 2009

Matt Marsh
Western Area Power Administration
Upper Great Plains Customer Service Region
P.O. Box 35800
Billings, Montana 59107-5800

RE: (Baldwin Wind) – B0401.BL, Burleigh County, ND

Dear Mr. Marsh:

The Natural Resources Conservation Service (NRCS) has reviewed your letter regarding the referenced activity and acknowledges your request to determine whether your project affects farmland as defined in Sec. 658.2(a) of the Code of Federal Regulations (CFR) dealing with the Farmland Protection Policy Act (FPPA).

Important Farmlands - NRCS has a major responsibility with FPPA in documenting conversion of farmland (i.e., prime, statewide, and local importance) to non-agricultural use. It is not clear from your letter whether Federal funding will be used for this project. If the project is supported by Federal funding or actions, FPPA will apply to each wind turbine site and the Farmland Conversion Impact Rating Form AD-1006 must be completed. A negative response is not required.

Wetlands – The Wetland Conservation Provisions of the 1985 Food Security Act, as amended, provide that if a USDA participant converts a wetland for the purpose of, or to have the effect of, making agricultural production possible, loss of USDA benefits could occur. NRCS has developed the following guidelines for the installation of buried utilities. If these guidelines are followed, the impacts to the wetland(s) will be considered minimal allowing USDA participants to continue to receive USDA benefits. Following are the requirements: 1) Disturbance to the wetland(s) must be temporary, 2) no drainage of the wetland(s) is allowed (temporary or permanent), 3) mechanized landscaping necessary for installation is kept to a minimum and preconstruction contours are maintained, 4) temporary side cast material must be placed in such a manner not to be dispersed in the wetland, and 5) all trenches must be backfilled to the original wetland bottom elevation.

NRCS would recommend that impacts to wetlands be avoided. If the project requires passage through or disturbance of a wetland, NRCS can complete a certified wetland determination, if requested by the landowner/operator.

If you have additional questions pertaining to FPPA, please contact Steve Sieler, State Soil Liaison, at (701) 530-2019.

Sincerely,

JOHN GLOVER
Acting State Conservationist

cc:
Jay D. Fuhrer, DC, NRCS, Bismarck, ND
Mike Collins, ASTC (FO), NRCS, Jamestown, ND

From: Brodin.Molly@epamail.epa.gov
To: mmarsh@wapa.gov;
Subject: EPA recommendations for preparation of Baldwin Wind Draft EA
Date: Wednesday, October 28, 2009 3:59:15 PM

Dear Mr. Marsh,

Thank you for providing the letter notifying EPA Region 8 of Western's intent to prepare an EA for the proposed Baldwin Wind Project in Burleigh County, ND. We understand from the letter that the proposed project would involve construction of approximately 66 wind turbine generators on approximately 12,000 acres of leased land. Included in the project would be construction of additional access roads as necessary, with permanent width of 32 feet and temporary construction width of 50 feet. Also included is installation of an underground electrical collection system, requiring vegetation clearing to 30 feet wide as well as trenching, and a collector substation occupying approximately 1.4 acres.

EPA notes that Burleigh County is located in the prairie pothole region of North Dakota. Additionally, we note, from the map provided and additional study of satellite images of the project area, that the proposed project area appears to contain a significant percentage of wetlands. The EA should address potential impacts to all resources of concern for the project area, but we recommend particular attention be given to wetland impacts.

EPA considers the protection, improvement, and restoration of wetlands and riparian areas to be a high priority. Wetlands and riparian areas increase landscape and species diversity, support many species of western wildlife, and are critical to the protection of water quality and designated beneficial water uses. Executive Order (EO) 11990 directs Federal Agencies to "take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities." The EA should describe how the pipeline alternatives will address the wetland protection goals in EO 11990, as applicable.

Installation of wind turbine generators, access road construction, electrical collection system installation, and construction of the collector substation all have potential to impact wetlands in the proposed project area. Please note that wetland impacts should be avoided and minimized, to the maximum extent practicable, and then unavoidable wetland impacts should be compensated for through wetland

restoration, creation, or enhancement. Wetland mitigations often require evaluation of less environmentally damaging project alternatives. In general, the required compensatory mitigation should be located within the same watershed as the impact site, and should be located where it is most likely to successfully replace lost functions and services. Specific information on mitigation plans should be provided, including the type and location of planned mitigation; this mitigation plan should include consideration of direct, indirect, and cumulative effects.

EPA Region 8 would like to receive a review copy of the Draft EA. Please send it to:

Larry Svoboda, Program Director
EPA Region 8 (8EPR-N)
1595 Wynkoop Street
Denver, CO 80202-1129

Thank you for the opportunity to comment during the scoping period for this project. We look forward to reviewing the Draft EA. If you have any questions on these comments, please contact me via e-mail or at the phone number below.

Regards,

Molly Brodin
U.S. Environmental Protection Agency (8EPR-N)
Ecosystems Protection and Remediation
National Environmental Policy Act
1595 Wynkoop St.
Denver, Colorado 80202
(303) 312-6577

United States Department of the Interior
National Park Service
Lewis & Clark National Historic Trail
601 Riverfront Drive
Omaha, Nebraska 68102-4226

OFFICIAL CORRESPONDENCE SENT VIA ELECTRONIC MAIL

NO HARD COPY TO FOLLOW

L7615 (LECL-RS)

November 20, 2009

Mr. Matt Marsh
Environmental Protection Specialist
Western Area Power Administration
P.O. Box 35800
Billings, Montana 59107-5800

Dear Mr. Marsh:

The National Park Service (NPS) reviewed the notice soliciting comments on the scope of an Environmental Assessment (EA) for the proposed Baldwin Wind Energy Center in Burleigh County, North Dakota. Please consider the following comments in developing the EA for this project.

The Lewis and Clark National Historic Trail (the Trail) was established by Congress in an amendment to the National Trails System Act in 1978, and is administered by NPS. Under this Act, the NPS is charged with the identification and protection of the historic route, remnants, and artifacts of the Lewis and Clark Corps of Discovery Expedition for public use and enjoyment.

The Trail is located near the proposed Baldwin Wind Energy Center. The Expedition traveled the Missouri River through North Dakota in October, 1804 as they headed west and in August, 1806 on their return journey. U.S. Highway 83, on the east side of the Missouri River and North Dakota Highway 6, on the west side of the river are designated Lewis and Clark auto tour routes in this area. In addition, North Dakota Highways 1804 and 1806 were named in commemoration of the Expedition. The public follows the historic Trail on these roadways and along or on the Missouri River.

While NPS supports efforts to produce clean energy, we urge avoidance or minimization of adverse impacts to Trail resources from the proposed project. Potential impacts to the natural, cultural, recreational, and scenic values of the Trail should be examined in the EA. There is a great deal of local, regional, and national significance in recognizing and preserving the resources of the Lewis and Clark National Historic Trail.

The NPS is very concerned about cumulative visual impacts to the Trail from this proposed project and similar projects either existing or forecast in the region and all along the Trail. Trail visitors drawn to the area for its scenic or historic qualities are likely to be sensitive to disruptions of the landscape by man-made structures. Given their size and blade rotation, wind turbines attract attention on the landscape. As currently outlined in the project area vicinity map,

the closest turbine is sited less than two miles from the Trail. The NPS requests that wind turbines be sited outside the viewshed of the Trail wherever possible. After consideration has been given to siting turbines outside the Trail viewshed, a vigorous visual impact assessment must be completed and included in the EA.

This project is sited immediately south of the existing Wilton Wind Energy Center project that has thirty-three turbines. These wind developments require interconnection to existing or new transmission lines and electrical substations and construction of access roads. The cumulative impact of these and other wind developments, including necessary infrastructure, must be evaluated in the EA.

Thank you for the opportunity to comment. We request a copy of the draft EA when it is available for review. If you have questions regarding our comments, or would like more information on the Trail, please contact Chief of Resources Stewardship Dan Wiley at 402-661-1830 or Dan_Wiley@nps.gov.

Sincerely,

/s/ Mark R. Weekley

Mark Weekely
Superintendent

cc:
Nick Chevance
Regional Environmental Coordinator
Midwest Regional Office
601 Riverfront Drive
Omaha, Nebraska 68102

No, our comments are still applicable, just with the correction on which roads are the designated auto tour route in North Dakota.

Thank you,

Denise L. Nelson
Environmental Protection Specialist
Lewis & Clark National Historic Trail
601 Riverfront Drive
Omaha, NE 68102

Phone: 402-661-1812
Fax: 402-661-1813

"Matt Marsh"
<MMarsh@wapa.gov>
11/30/2009 10:09 AM

To <Denise_Nelson@nps.gov>
cc
Subject Re: NPS comments on Baldwin Wind Energy Center in Burleigh County, ND

Hi Denise,
Would you like to withdraw your comments then?
Matt

Matt Marsh
Environmental Protection Specialist
Western Area Power Administration
P.O. Box 35800
Billings, MT 59107-5800
406-247-7385 (office)
406-670-7479 (cell)

>>> <Denise_Nelson@nps.gov> 11/24/2009 3:27 PM >>>
Hi Matt,

I'm working on comments for a proposed transmission line (Minnkota Power Cooperative) north of Bismark, ND and learned from our Outdoor Recreation Planner that North Dakota Highways 1804 and 1806 are the designated Lewis and Clark auto tour routes in North Dakota. I had incorrectly indicated in our November 20th comment letter that Hwys 83 and 6 are the designated auto tour routes in ND. U.S. Highway 83 and North Dakota Highway 6 are designated on the maps created for development of the Lewis and Clark National Historic Trail in the National Trails System Act and may have once also been the official auto tour route in ND. I regret the error and apologize for the confusion.

Please feel free to contact me if you have any questions. Have a Happy Thanksgiving!

Denise L. Nelson
Environmental Protection Specialist
Lewis & Clark National Historic Trail
601 Riverfront Drive
Omaha, NE 68102

Phone: 402-661-1812
Fax: 402-661-1813

"Matt Marsh"
<mmarsh@wapa.gov>
11/20/2009 03:36 PM

To <Denise_Nelson@nps.gov>
cc
Subject Re: NPS comments on Baldwin Wind Energy Center in Burleigh County, ND

Thanks for the comments Denise. Have a great weekend.
Matt

Matt Marsh
Environmental Protection Specialist
Western Area Power Administration
P.O. Box 35800
Billings, MT 59107-5800
406-247-7385
>>> <Denise_Nelson@nps.gov> 11/20/09 1:38 PM >>>

Hello Matt,

Scoping comments from the Lewis and Clark National Historic Trail on the proposed Baldwind Wind Energy Center are attached.

Thank you for the opportunity to comment and please feel free to contact me with any questions.

(See attached file: Baldwin_Wind_Energy_LECLcomment112009.pdf)

Environmental Protection Specialist
Lewis & Clark National Historic Trail
601 Riverfront Drive
Omaha, NE 68102

Phone: 402-661-1812
Fax: 402-661-1813

John Hoeven, Governor
Douglass A. Prchal, Director

1600 East Century Avenue, Suite 3
Bismarck, ND 58503-0649
Phone 701-328-5357
Fax 701-328-5363
E-mail: parkrec@nd.gov
www.parkrec.nd.gov

November 13, 2009

Matt Marsh
U.S. Department of Energy
Western Area Power Administration
Upper Great Plains Customer Service Region
P.O. Box 35800
Billings, MT 59107-5800

Re: Baldwin Wind Energy Center Project

Dear Mr. Marsh:

The North Dakota Parks and Recreation Department has reviewed the above referenced project proposal to construct a wind energy center located in Section 19, T141N, R78W; Sections 2-5, 8-15, and 24, T141N, R79W; Sections 19-23, 26-30, and 33-35, T142N, R79W; and Section 25, T142N, R80W; Burleigh County.

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

The North Dakota Natural Heritage biological conservation database has been reviewed to determine if any current or historic 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 known occurrences within or adjacent to the 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.

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.

Regarding any reclamation efforts, we recommend that any impacted areas be revegetated with species native to the project area.

Thank you for the opportunity to comment on this project. Please contact Kathy Duttenhefner (701-328-5370 or kgduttenhefner@nd.gov) of our staff if additional information is needed.

Sincerely,

Jesse Hanson

Jesse Hanson, Coordinator
Planning and Natural Resources Division

R.USNDNHI*2009-327

Play in our backyard!

UNITED STATES DEPARTMENT OF COMMERCE
National Telecommunications and Information Administration
Washington, D.C. 20230

SEP 9 2009

Mr. Crosby Savage
Site Assessment Analyst
NextEra Energy Resources
700 Universe Blvd.
Juno Beach, FL 33408

Re: Baldwin Wind Energy Project, in Burleigh County, ND

Dear Mr. Savage:

In response to your request dated July 21, 2009, the National Telecommunications and Information Administration provided to the federal agencies represented in the Interdepartment Radio Advisory Committee (IRAC) the plans for the Baldwin Wind Energy Project, in Burleigh County, North Dakota.

After a 45 day period of review, only the Department of Commerce (DOC) identified any concerns regarding blockage of their radio frequency transmissions.

> The proposed Baldwin Wind Energy Project in Burleigh County, ND will be located between approximately 13 and 26 nautical miles north through northeast of the Bismarck, ND Weather Surveillance Radar-1988 Doppler (WSR-88D). DOC estimates the proposed wind farm (towers and turbines) will be in the radar line of sight of the Bismarck WSR-88D. The Bismarck WSR-88D will see the wind farm on a daily basis. The towers and turbine blades will cause interference consisting of reflectivity clutter and anomalous Doppler returns at and downstream from the facility, possibly causing some beam blockage/attenuation and shadow effects. The wind farm will likely have large meteorological and hydrological impacts on the Bismarck WSR-88D in the azimuths impacted by the wind farm due to the returns from the rotating blades that the WSR-88D clutter filter will not be able to eliminate. WSR-88D weather radar data that is contaminated by wind turbine clutter (WTC) can cause impacts to all users including government, emergency managers, television broadcasters, private industry, researchers, and the public. Impacts to the key government agencies, the Departments of Commerce, Transportation, and Defense, could be particularly detrimental because they have the potential to impair the agencies' capability and efficiency in their respective public service/public safety roles. For example, the wind farm could have an impact on the Bismarck Weather Forecast Office severe weather warning operations near and potentially downrange of the wind farm.
>
> We would be willing to assist the developer in exploring siting or operational curtailment options that would reduce the impact on the WSR-88D and weather radar data users.

Please forward the attached report to the developer along with the NTIA's response.

POC:
Dominic Bosco
1325 East West Hwy
Building: SSMC2
Silver Spring, MD 20910-3283
Phone: 301-713-1841 x123

Please find enclosed the aforementioned report from the Department of Commerce (DOC) representative.

While the other IRAC agencies did not identify any concerns regarding radio frequency blockage, this does not eliminate the need for the wind energy facilities to meet any other requirements specified by law related to these agencies. For example, this review by the IRAC does not eliminate any need that may exist to coordinate with the Federal Aviation Administration concerning flight obstruction.

Thank you for the opportunity to review these proposals.

Sincerely,

Edward M. Davison
Deputy Associate Administrator
Office of Spectrum Management

Enclosure

Western needs your input to identify issues and concerns for the proposed Baldwin Wind Energy Center Project EA

If you have any issues, concerns, or questions that you would like addressed in the Baldwin Wind Energy Center Project Environmental Assessment, please complete this response sheet and send it to Matt Marsh, Environmental Protection Specialist, Upper Great Plains Region, Western Area Power Administration, P.O. Box 35800, Billings, Montana 59107-5800, Fax: (406) 247-7408, E-mail: mmarsh@wapa.gov. If you prefer, give us a call at 1-800-358-3415 or email Matt Marsh at mmarsh@wapa.gov. You may also call Mr. Marsh directly at 406-247-7385.

Share your issues, concerns, or questions with us: (please send additional pages if you wish)

NONE @ THIS TIME.

Our mailing list

To have your name added or removed from our mailing list for this project, please check the appropriate box and return this response sheet to us. If you do not ask us to remove your name from our mailing list, we'll send you future EA-related announcements.

✓ Yes, add my name to the mailing list to receive future information

__ No, please remove my name from your mailing list

Sign up to receive the EA for Review

Please also let us know if you would like to receive a copy of the Draft Environmental Assessment for Pre-Approval Review when it is available.

✓ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: JOHN W. SCHULZ Title: PRIVATE CITIZEN
Mailing address: 1926 SOUTH GRANDVIEW LANE
City, State, Zip: BISMARCK, ND 58503
Phone: 701-255-9504 Fax: _____ E-mail: JOHNSCHULZ@BIS.MIDCO.NET

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

Western needs your input to identify issues and concerns for the proposed Baldwin Wind Energy Center Project EA

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Share your issues, concerns, or questions with us: (please send additional pages if you wish)

Our mailing list

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✓ Yes, add my name to the mailing list to receive future information

__ No, please remove my name from your mailing list

Sign up to receive the EA for Review

Please also let us know if you would like to receive a copy of the Draft Environmental Assessment for Pre-Approval Review when it is available.

✓ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: JOHN O. Spitzer Title: Ecklund Township Chairman of Board of Supervis

Mailing address: 24800 41st. NE Landowner

City, State, Zip: Wilton, ND. 58579

Phone: 701-223-0948 Fax: _____ E-mail: Spitzejo@msn.com

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

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Share your issues, concerns, or questions with us: (please send additional pages if you wish)

It looks good to me.

Our mailing list

To have your name added or removed from our mailing list for this project, please check the appropriate box and return this response sheet to us. If you do not ask us to remove your name from our mailing list, we'll send you future EA-related announcements.

X Yes, add my name to the mailing list to receive future information

__ No, please remove my name from your mailing list

Sign up to receive the EA for Review

Please also let us know if you would like to receive a copy of the Draft Environmental Assessment for Pre-Approval Review when it is available.

X Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: Jeff and Robyn Spitze Title: Farmer

Mailing address: B67

City, State, Zip: Wilton ND 58579

Phone: 701-734 8115 Fax: _____ E-mail: _____

391 5107

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

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If you have any issues, concerns, or questions that you would like addressed in the Baldwin Wind Energy Center Project Environmental Assessment, please complete this response sheet and send it to Matt Marsh, Environmental Protection Specialist, Upper Great Plains Region, Western Area Power Administration, P.O. Box 35800, Billings, Montana 59107-5800, Fax: (406) 247-7408, E-mail: mmarsh@wapa.gov. If you prefer, give us a call at 1-800-358-3415 or email Matt Marsh at mmarsh@wapa.gov. You may also call Mr. Marsh directly at 406-247-7385.

Share your issues, concerns, or questions with us: (please send additional pages if you wish)

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✓ Yes, add my name to the mailing list to receive future information

__ No, please remove my name from your mailing list

Sign up to receive the EA for Review

Please also let us know if you would like to receive a copy of the Draft Environmental Assessment for Pre-Approval Review when it is available.

__ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: Warren Opp Title: Owner

Mailing address: 4715 Hwy 21

City, State, Zip: Lark, ND 58535

Phone: 701-557-3120 Fax: _____ E-mail: _____

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

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Share your issues, concerns, or questions with us: (please send additional pages if you wish)

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__ Yes, add my name to the mailing list to receive future information

__ No, please remove my name from your mailing list

Sign up to receive the EA for Review

Please also let us know if you would like to receive a copy of the Draft Environmental Assessment for Pre-Approval Review when it is available.

✓ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: Toby Sheldon Title: _____

Mailing address: 14400 41st ST. NE

City, State, Zip: Baldwin ND 58521

Phone: 701.220.1122 Fax: _____ E-mail: tsheldon@nd.gov

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

Western needs your input to identify issues and concerns for the proposed Baldwin Wind Energy Center Project EA

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X Yes, add my name to the mailing list to receive future information

__ No, please remove my name from your mailing list

Sign up to receive the EA for Review

Please also let us know if you would like to receive a copy of the Draft Environmental Assessment for Pre-Approval Review when it is available.

X Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: Matthew Ponish Title: National Environmental Compliance Mana

Mailing address: 1400 Independence Ave SW, Stop 0513

City, State, Zip: Washington DC 20250

Phone: 2027206853 Fax: _____ E-mail: matthew.ponish@wdc.usda.gov

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

Baldwin Wind Energy Center Open House

October 21, 2009, 5-8 PM Wilton School Gym

COMMENT SHEET

After reviewing all of the exhibits and speaking with project representatives, please share your comments with us regarding the Baldwin Wind Energy Center Environmental Assessment.

Comments:

I represent Envision Safety Services, LLC located in Bismarck, ND. We provide safety consulting, supervision, training etc. through and after construction projects. I would invite the opportunity to meet with the safety director for Nextera Energy and discuss the possibility of doing safety work during your construction project.

To receive more information regarding the Environmental Assessment for the Baldwin Wind Energy Center, please provide us your contact information.

Name: Doug Hartman
Address: 3712 Lockport ST. Suite E
City, State, Zip: Bismarck, ND 58503
Phone Number: 701-250-0123
Email: doug@envisionnrg.com
Representing (organization, company, etc.) Envision Safety Services, LLC.

After completing the comment form, please submit it in the comment box, or mail/fax to:
Matt Marsh, Environmental Protection Specialist, Western Area Power Administration
PO Box 35800, Billings, MT 59107-5800, Fax: (406) 247-7408. You may also submit your comments via phone at (800) 358-3415 or via email to mmarsh@wapa.gov. **Your comments are important to us and will be accepted through November 21, 2009.**

Thank you for your participation.

Scoping Meeting
Baldwin Wind Energy Center
Environmental Assessment (EA)

Thank you for your interest in the proposed Baldwin Wind Energy Center EA. Please complete the appropriate sections of this form to be included on the EA mailing list and/or to provide comments. Written comments can be submitted at the Scoping Meeting, faxed to (406) 247-7408, mailed to Mr. Matt Marsh, Western Area Power Administration, Upper Great Plains Customer Service Office, P.O. Box 35800, Billings, MT 59107-5800 or sent to the **NEPA Document Manager at mmarsh@wapa.gov.**

☐ I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.
☐ I prefer electronic/email communication.
☐ I prefer paper mailings.

Please Print Contact Info Below

Name:	Organization:
Steve Merrill	none
E-mail address:	Daytime Phone No. *(optional)*:
Street Address:	City / State / Zip Code:
1110 W. Highland Acres	Bismarck ND 58501

Please indicate any questions, comments or concerns you have about the proposed agreement modification in the comment section below (continue on separate sheet if necessary).

I am impressed with the good work you are doing in developing Sustainable, wind energy. Keep up the good work!

Thank you for your time and interest.

Baldwin Wind Energy Center Open House

October 21, 2009, 5-8 PM Wilton School Gym

COMMENT SHEET

After reviewing all of the exhibits and speaking with project representatives, please share your comments with us regarding the Baldwin Wind Energy Center Environmental Assessment.

Comments:

This looks like a good project.
We need more wind energy

Jan & Merrick Burmark

To receive more information regarding the Environmental Assessment for the Baldwin Wind Energy Center, please provide us your contact information.

Name: _____

Address: _____

City, State, Zip: _____

Phone Number: _____

Email: _____

Representing (organization, company, etc.) _____

After completing the comment form, please submit it in the comment box, or mail/fax to:
Matt Marsh, Environmental Protection Specialist, Western Area Power Administration
PO Box 35800, Billings, MT 59107-5800, Fax: (406) 247-7408. You may also submit your comments via phone at (800) 358-3415 or via email to mmarsh@wapa.gov. **Your comments are important to us and will be accepted through November 21, 2009**.

Thank you for your participation.

Baldwin Wind Energy Center Open House

October 21, 2009, 5-8 PM Wilton School Gym

COMMENT SHEET

After reviewing all of the exhibits and speaking with project representatives, please share your comments with us regarding the Baldwin Wind Energy Center Environmental Assessment.

Comments:

I would like to know when the projected start date of the project and if you have a buyer for the Baldwin Wind Center as of now.

To receive more information regarding the Environmental Assessment for the Baldwin Wind Energy Center, please provide us your contact information.

Name: Michelle Schroeder
Address: 19701 145th St NE
City, State, Zip: Baldwin ND 58521
Phone Number: 223-4648
Email: MLS200@yahoo.com
Representing (organization, company, etc.) Landowner

After completing the comment form, please submit it in the comment box, or mail/fax to:
Matt Marsh, Environmental Protection Specialist, Western Area Power Administration
PO Box 35800, Billings, MT 59107-5800, Fax: (406) 247-7408. You may also submit your comments via phone at (800) 358-3415 or via email to mmarsh@wapa.gov. **Your comments are important to us and will be accepted through November 21, 2009.**

Thank you for your participation.

From: Arlis Waltos
To: mmarsh@wapa.gov;
cc: awaltos@fs.fed.us;
Subject: Baldwin Wind Energy Center Project EA
Date: Friday, October 23, 2009 4:00:37 PM

Hi, we missed the meeting in Wilton this week. Will you please add our names to receive future information.

Gerald & Arlis Waltos
6901 201st Ave. NE
Baldwin, ND 58521

Thank you.

Arlis Waltos, DPG
240 W. Century Ave.
Bismarck, ND 58503 tel: 701-250-4463, ext. 102

From: Brodin.Molly@epamail.epa.gov
To: mmarsh@wapa.gov;
Subject: EPA recommendations for preparation of Baldwin Wind Draft EA
Date: Wednesday, October 28, 2009 3:59:15 PM

Dear Mr. Marsh,

Thank you for providing the letter notifying EPA Region 8 of Western's intent to prepare an EA for the proposed Baldwin Wind Project in Burleigh County, ND. We understand from the letter that the proposed project would involve construction of approximately 66 wind turbine generators on approximately 12,000 acres of leased land. Included in the project would be construction of additional access roads as necessary, with permanent width of 32 feet and temporary construction width of 50 feet. Also included is installation of an underground electrical collection system, requiring vegetation clearing to 30 feet wide as well as trenching, and a collector substation occupying approximately 1.4 acres.

EPA notes that Burleigh County is located in the prairie pothole region of North Dakota. Additionally, we note, from the map provided and additional study of satellite images of the project area, that the proposed project area appears to contain a significant percentage of wetlands. The EA should address potential impacts to all resources of concern for the project area, but we recommend particular attention be given to wetland impacts.

EPA considers the protection, improvement, and restoration of wetlands and riparian areas to be a high priority. Wetlands and riparian areas increase landscape and species diversity, support many species of western wildlife, and are critical to the protection of water quality and designated beneficial water uses. Executive Order (EO) 11990 directs Federal Agencies to "take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities." The EA should describe how the pipeline alternatives will address the wetland protection goals in EO 11990, as applicable.

Installation of wind turbine generators, access road construction, electrical collection system installation, and construction of the collector substation all have potential to impact wetlands in the proposed project area. Please note that wetland impacts should be avoided and minimized, to the maximum extent practicable, and then unavoidable wetland impacts should be compensated for through wetland

restoration, creation, or enhancement. Wetland mitigations often require evaluation of less environmentally damaging project alternatives. In general, the required compensatory mitigation should be located within the same watershed as the impact site, and should be located where it is most likely to successfully replace lost functions and services. Specific information on mitigation plans should be provided, including the type and location of planned mitigation; this mitigation plan should include consideration of direct, indirect, and cumulative effects.

EPA Region 8 would like to receive a review copy of the Draft EA. Please send it to:

Larry Svoboda, Program Director
EPA Region 8 (8EPR-N)
1595 Wynkoop Street
Denver, CO 80202-1129

Thank you for the opportunity to comment during the scoping period for this project. We look forward to reviewing the Draft EA. If you have any questions on these comments, please contact me via e-mail or at the phone number below.

Regards,

Molly Brodin
U.S. Environmental Protection Agency (8EPR-N)
Ecosystems Protection and Remediation
National Environmental Policy Act
1595 Wynkoop St.
Denver, Colorado 80202
(303) 312-6577

From: Matt Marsh
To: Chuck Peterson;
Subject: Re: Baldwin Wind farm
Date: Friday, October 23, 2009 12:08:35 PM

Hi Chuck. We only do web sites for our EIS projects. I'm not sure if NextEra Energy has a project web site for this. I will add your name to our EA project list. Thanks for your interest in our project.
Matt

Matt Marsh
Environmental Protection Specialist
Western Area Power Administration
P.O. Box 35800
Billings, MT 59107-5800
406-247-7385 (office)
406-670-7479 (cell)

>>> "Chuck Peterson" <C.Peterson@jobberswarehouse.com> 10/21/2009 9:31 AM >>>
Please add my name and address to receive information concerning the Baldwin Wind Project. Is there a website?

Chuck Peterson
17850 28th St NW
Baldwin, ND 58521
C2221111@wildblue.net .

From: Matt Marsh
To: Diane Enger;
Subject: Re: Mailing List -
Date: Friday, October 23, 2009 12:10:46 PM

Hi Diane,
I will add you to our mailing list. Thanks for your interest in our project. If you have any questions, comments or concerns please feel free to email or call me at any time. Thanks.
Matt

Matt Marsh
Environmental Protection Specialist
Western Area Power Administration
P.O. Box 35800
Billings, MT 59107-5800
406-247-7385 (office)
406-670-7479 (cell)

>>> "Enger, Diane" <Diane.Enger@securiannd.com> 10/21/2009 9:24 AM >>>
Please add me to the Wilton/Baldwin, ND project mailing list.

Diane Enger
c/o Betty Franklund
1127 N. 29th Street
Bismarck, ND 58501

My home phone number is (701) 224-1016 or you can reach Betty Franklund at (701) 223-2919.

Please let me know if you have any questions.

Thank you,
Diane Enger

Diane "Franky" Enger, Office Administrator
Securian Financial Advisors of ND, Inc.
4431 Memorial Highway
Mandan, ND 58554
P: (701) 663-8401 F: (701) 663-8402
www.securiannd.com

North Dakota Chapter
THE WILDLIFE SOCIETY
P.O. BOX 1442 • BISMARCK, ND 58502

November 16, 2009

Mr. Matt Marsh
Environmental Protection Specialist
Upper Great Plains Region
Western Area Power Administration
PO Box 35800
Billings, MT 59107-5800

Mr. Marsh:

This letter is in response to the scoping process for the proposed Baldwin Wind Energy Center Project Environmental Assessment. The North Dakota Chapter of The Wildlife Society (Chapter) is generally supportive of the wind industry as a renewable source of "green" energy that can be produced locally. The Chapter is concerned, however, about the impacts that wind facilities placed in grasslands, particularly extensive tracts of native prairie, have on ecosystem health and wildlife. In a 2007 report, *Environmental Impacts of Wind-Energy Projects*, by the National Research Council to the U.S. Congress, the Council recognized that the construction and operation of wind-energy facilities directly influence ecosystem structure. These influences include removal of vegetation, disturbance, compaction of soil, soil erosion, and changes in hydrologic features. Wildlife is impacted directly through mortality or indirectly through alteration of habitat and behavioral avoidance. Furthermore, research conducted in various parts of the United States indicates small-scale displacement of songbirds. Specifically, research conducted in North Dakota and South Dakota by the US Geological Survey indicates displacement of some species of grassland songbirds by wind facilities.

The Chapter is particularly concerned with the impact to wildlife of wind facilities placed on the physiographic region of the Missouri Coteau, as the Baldwin project is. The Missouri Coteau contains large expanses of unfragmented grasslands intermixed with millions of wetlands and is a vital breeding area for many grassland and wetland nesting birds. In addition, it is a hunter's paradise and a prime area for ecotourism potential. The Missouri Coteau is in the midst of the Central Flyway, a migratory corridor used by millions of game birds and other species during spring and fall. It is also an endangered ecosystem, even more so than tropical rainforest. Only about 30% of mixed-grass prairie remains in North America. The Missouri Coteau is critically important for wildlife in North Dakota, as well as to the hunters, outdoor enthusiasts, and operators of ecotourism industries that value these irreplaceable resources. The importance of tourism to the state's economy is underscored by the fact that the tourism industry ranks second in its contribution to the state's economic base; tourism generated $3.96 billion in 2008. Hunting contributes about $365 million annually to the state's tourism industry.

The Chapter is most supportive of wind facilities that are placed in habitats of low value to wildlife, such as cropland in already predominantly agricultural landscapes. The Chapter is pleased that the majority of the Baldwin project is sited in cropland. In areas where turbine placement on grasslands is unavoidable, the Chapter urges mitigation in ratios exceeding 1:1. That is to say, for every acre of grassland destroyed, more than an acre should be restored or protected. Native prairie should receive the highest ratio, followed by planted grasslands. The Chapter realizes that there is no established system in North Dakota for this type of mitigation for wind facilities, but also realizes that Basin Electric Power and BP Alternative Energy and Clipper WindPower Development (for a jointly owned South Dakota project), have committed to voluntary conservation measures. The Chapter applauds these efforts.

The Chapter does have some concerns about the larger landscape in which the Baldwin project is embedded. The Baldwin project is not the only wind facility in the immediate area. Wilton I and II, also referred to as the Burleigh County Wind Energy Center, are immediately adjacent to the Baldwin project. Because of current regulations, none of these wind facilities requires oversight by the North Dakota Public Service Commission, other than for powerline route considerations. Each limited liability corporation is registered independently, and does not trigger state regulation due to the state cutoff for regulatory review of >60 MW. Wildlife and ecosystems, however, do not recognize these cutoffs. Many plant and animal species are sensitive to anthropogenic disturbance, be it increased human presence on the landscape or the introduction of a non-native plant into the environment. These types of influences seldom work independently on wildlife. The combination of new roads, more vehicular traffic, increased human presence, alteration of wetlands, introduction of non-native plants, the building of very large structures on the landscape (i.e., the wind turbines themselves), and other anthropogenic disturbances, are termed cumulative impacts. The cumulative impacts of wind developments and other anthropogenic pressures on wildlife are unknown. Whereas one wind facility may have no discernible negative influence on wildlife, the accumulation of numerous wind facilities built in the same area may begin to break down species' thresholds of tolerance to disturbances.

The three "small" projects, Wilton I, II, and Baldwin, are in essence one wind facility, comprising 132 turbines, but because of current state regulations, the facilities' biological effects could accumulate without the benefit of state regulatory review. The Chapter strongly believes that each new wind facility should be considered in the context of other existing and planned projects in the region. This consideration of cumulative effects should include *all* other anthropogenic impacts in the area, including such things as additional transmission lines, roads, and other types of infrastructure that may or may not be unrelated to wind facilities. Perhaps these three projects will have minimal impact on the environment, as there are already highways, railroads, transmission lines, and railroads in this area. However, this can not be ascertained without a cumulative impacts analysis.

On a larger geographic scale, the Chapter would like to see addressed in the EA cumulative impacts section some discussion on how the Baldwin wind facility and the other wind facilities for which WAPA is involved in North Dakota might have cumulative impacts to wildlife and the environment. At both the local and state levels, the Chapter looks forward to reviewing the cumulative impacts section of the draft EA.

The Baldwin project is within the migration corridor of the Whooping Crane, a federally endangered species. Mortality by transmission lines is a source of mortality for Whooping Cranes. Where feasible, power lines should be buried, all above-ground lines should have bird deterrents, and the use of guy wires should be avoided. If lines cannot be buried, markers should be required on guy wires and overhead transmission lines.

Because Wilton I, II, and Baldwin are all subsidiaries of NextEra Energy, it seems very likely that the parent company had intentions of planning for a 132-turbine (and perhaps an ultimately even larger) wind-resource area. The Chapter understands the highly secretive nature of the wind industry when dealing with industry competitors over easements and other issues. However, the Chapter urges wind developers to contact state and federal natural-resource agencies early in the planning process to discuss the entire scope of a wind-resource area, and thus ultimate impact footprint, regardless of current regulations. If contacted early, agencies and wind developers can address concerns over potential cumulative impacts, as well as ways to avoid or minimize them. The piecemeal approach currently in effect, although unfortunately legal, ignores biological realities.

Another benefit of early contact with state and federal agencies, as well as other concerned entities, is the opportunity to coordinate efforts to study the potential impacts of wind facilities on wildlife. There are numerous unanswered questions about the impacts of wind facilities on wildlife. Whereas many wind developers conduct pre-operational baseline surveys, and sometimes post-operational monitoring surveys,

these surveys are not always pertinent to a particular region. Money might be better spent on surveys of a different nature. For example, in North Dakota, very little is known about rates of bird and bat mortality, or the impacts of turbines on prairie grouse. To our knowledge, no wind developers are addressing these issues. Even if they were, another cause for concern is the sharing of results. It is difficult to make informed decisions when the scientific data are non-existent, or existent but not shared.

Some wind developers are beginning to write Avian Protection Plans for their facilities. The Chapter supports the development of such plans, especially if these plans are written in coordination with state and federal natural-resource agencies, address what pre- and post-operational monitoring will be conducted, how the resulting data will be used and shared, and explains how potential impacts to migratory and resident birds and bats will be avoided, minimized, and mitigated.

Because the Chapter's members are wildlife professionals, the Chapter would be happy to engage wind developers in discussions about our concerns, as well as serving in advisory capacities.

Sincerely,

Kent Luttschwager

Kent Luttschwager
President, North Dakota Chapter of The Wildlife Society
701-774-4320

The Wildlife Society is an international, nonprofit, scientific and educational organization composed of professionals, students, and laypersons active and interested in wildlife research, management, education and administration. The NDCTWS is an active affiliate. It is specifically concerned with approaches to effective management of North Dakota's plant and animal communities. The Chapter provides expertise in advising legislative and judicial processes surrounding the controversial management of many natural resource assets. It advocates the holistic treatment of environmental questions. The Chapter was founded in 1963 and incorporated in 1981 under the laws of North Dakota. The NDCTWS would be very willing to engage the PSC in issues concerning wildlife impacts from wind facilities, as well as offer advice based on member's expertise in matters of wildlife management and impacts of human-derived disturbances.

Western needs your input to identify issues and concerns for the proposed Baldwin Wind Energy Center Project EA

If you have any issues, concerns, or questions that you would like addressed in the Baldwin Wind Energy Center Project Environmental Assessment, please complete this response sheet and send it to Matt Marsh, Environmental Protection Specialist, Upper Great Plains Region, Western Area Power Administration, P.O. Box 35800, Billings, Montana 59107-5800, Fax: (406) 247-7408, E-mail: mmarsh@wapa.gov. If you prefer, give us a call at 1-800-358-3415 or email Matt Marsh at mmarsh@wapa.gov. You may also call Mr. Marsh directly at 406-247-7385.

Share your issues, concerns, or questions with us: (please send additional pages if you wish)

Our mailing list

To have your name added or removed from our mailing list for this project, please check the appropriate box and return this response sheet to us. If you do not ask us to remove your name from our mailing list, we'll send you future EA-related announcements.

X Yes, add my name to the mailing list to receive future information

__ No, please remove my name from your mailing list

Sign up to receive the EA for Review

Please also let us know if you would like to receive a copy of the Draft Environmental Assessment for Pre-Approval Review when it is available.

X Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: DENNIS RANKIN Title: ENVIRONMENTAL PROTECTION SPECIALIST

Mailing address: RURAL UTILITIES SERVICE 1400 INDEPENDENCE AVE. SW Stop 1571, Room 2244

City, State, Zip: WASHINGTON DC 20250-1571

Phone: (202) 720-1953 Fax: (202) 720-0820 E-mail: dennis.rankin@wdc.usda.gov

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

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Share your issues, concerns, or questions with us: (please send additional pages if you wish)

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__ No, please remove my name from your mailing list

Sign up to receive the EA for Review

Please also let us know if you would like to receive a copy of the Draft Environmental Assessment for Pre-Approval Review when it is available.

X Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: Jane Beu Title: Outdoor Rec Planner
Mailing address: National Park Service 601 Riverfront Dr
City, State, Zip: Omaha NE 68102
Phone: 402-661-1544 Fax: 402-661-1545 E-mail: Jane_Beu@NPS.GOV

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

Western
AREA POWER
ADMINISTRATION

Baldwin Wind Energy Center Open House
April 7, 2010, 5-8 PM Wilton School Gym
Public Comment Meeting (2)
Environmental Assessment (EA)

Thank you for your interest in the proposed Baldwin Wind Energy Center EA. Please complete the appropriate sections of this form to be included on the EA mailing list and/or to provide comments. Written comments can be submitted at the Scoping Meeting, faxed to (406) 247-7408, mailed to Mr. Matt Marsh, Western Area Power Administration, Upper Great Plains Customer Service Office, P.O. Box 35800, Billings, MT 59107-5800 or sent to the **NEPA Document Manager at mmarsh@wapa.gov.** To be included in our public comment process, please ensure your comments are postmarked or turned in by **April 21, 2010.**

- ☒ I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.
- ☐ I prefer electronic/email communication.
- ☒ I prefer paper mailings.

Please Print Contact Info Below

Name:	Organization:
Myrna Hochhalter	
E-mail address:	Daytime Phone No. *(optional):*
Street Address:	City / State / Zip Code:
33450 145th St NE	Regan ND 58477-9761

Please indicate any questions, comments or concerns you have about the proposed agreement modification in the comment section below (continue on separate sheet if necessary).

Thank you for your time and interest.

Western
AREA POWER
ADMINISTRATION

Baldwin Wind Energy Center Open House
April 7, 2010, 5-8 PM Wilton School Gym
Public Comment Meeting (2)
Environmental Assessment (EA)

Thank you for your interest in the proposed Baldwin Wind Energy Center EA. Please complete the appropriate sections of this form to be included on the EA mailing list and/or to provide comments. Written comments can be submitted at the Scoping Meeting, faxed to (406) 247-7408, mailed to Mr. Matt Marsh, Western Area Power Administration, Upper Great Plains Customer Service Office, P.O. Box 35800, Billings, MT 59107-5800 or sent to the **NEPA Document Manager at mmarsh@wapa.gov.** To be included in our public comment process, please ensure your comments are postmarked or turned in by **April 21, 2010.**

- [x] I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.
- [ ] I prefer electronic/email communication.
- [x] I prefer paper mailings.

Please Print Contact Info Below

Name:	Organization:
LINDA M OSWALD	
E-mail address:	Daytime Phone No. *(optional)*:
	701-286-7385
Street Address:	City / State / Zip Code:
11550 357th AVE NE	WILTON ND 58579-9762

Please indicate any questions, comments or concerns you have about the proposed agreement modification in the comment section below (continue on separate sheet if necessary).

Thank you for your time and interest.

United States Department of the Interior

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

APR 19 2010

Mr. Matt Marsh
Western Area Power Administration
Upper Great Plains Customer Service Region
P.O. Box 35800
Billings, Montana 59107-5800

Dear Mr. Marsh:

This is in response to your March 19, 2010, request for environmental information in relation to a second public scoping for the preparation of an Environmental Assessment (EA) for the proposed Baldwin Wind Energy Center, LLC. The proposed project area has been expanded to include an area east of Wilton, North Dakota, immediately north of the current Wilton Wind farms. We offer the following comments under the authority of and in accordance with the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250), Executive Order 11990 "Protection of Wetlands", Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", the Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.), the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57), and the National Environmental Policy Act (NEPA) (Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended).

The Fish and Wildlife Service (Service) previously provided scoping comments to the Western Area Power Administration (Western) for the original project area in a November 10, 2009, letter. Those comments and recommendations (letter attached) are incorporated by reference with respect to the proposed expanded project area.

Thank you for the opportunity to provide comments. We would appreciate it if you would provide our office with a copy of the Draft EA and Draft BA for review. If you require further information as project planning proceeds, please contact Terry Ellsworth of my staff, or contact me directly, at (701) 250-4481, or at the letterhead address.

Sincerely,

for Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

Enclosure

cc: Project Leader, Long Lake WMD
(Attn: E. Meendering)
ND Public Service Commission, Bismarck
Director, ND Game & Fish Department, Bismarck
(Attn: M. McKenna)

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Energy – Wind Power
Next Era Energy -
Baldwin

NOV 1 0 2009

Mr. Matt Marsh
Western Area Power Administration
Upper Great Plains Customer Service Region
P.O. Box 35800
Billings, Montana 59107-5800

Dear Mr. Marsh:

This is in response to your September 30, 2009, request for environmental information in relation to public scoping for the preparation of an Environmental Assessment (EA) for the proposed Baldwin Wind Energy Center, LLC (Baldwin Wind) 99 megawatt (MW) wind power project near Baldwin, North Dakota. The proposed project is located in Burleigh County, North Dakota:

T. 141 N., R. 78 W., Section 19
T. 141 N., R. 79 W., Sections 2-5, 8-15, 24
T. 142 N., R. 79 W., Sections 19-23, 26-30
T. 142 N., R. 80 W., Section 25

Western Area Power Administration (Western) is the lead Federal agency for the proposed action. We offer the following comments under the authority of and in accordance with the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.), Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250), Executive Order 11990 "Protection of Wetlands", Executive Order 13186 "Responsibilities of Federal Agencies to Protect Migratory Birds", the Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.), the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57), and the National Environmental Policy Act (NEPA) (Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended). The U.S. Fish and Wildlife Service (Service) requests that the recommendations provided in this letter be addressed in Western's EA for the Baldwin Project.

The Service holds certain resources in trust and manages them for the benefit of the American people. These resources include migratory birds, inter-jurisdictional fish, federally-listed threatened and endangered species of plants and animals and their habitats, and units of the National Wildlife Refuge system. One goal of Service policy is that conservation of fish and wildlife resources receive equal consideration with other features of resource development, and that conservation actions are coordinated with those other forms of development. Another goal is to conserve, protect, and enhance fish and wildlife and their habitats, and to facilitate the

balanced development of the Nation's natural resources. When planning an activity, project proponents should give careful consideration to potential impacts to these trust resources and compliance with the laws mentioned above.

Migratory Birds

Adequate consideration for avian and other wildlife resources early in the site evaluation process can help to minimize impacts and facilitate project review. Although current wind turbine technology and proper siting can help to minimize the incidence of avian and bat deaths due to blade, aerial line, and tower strikes, the potential for direct mortality of some migratory birds and bats will remain. Wind power developers, in concert with the Service, can help to ensure that projects proceed with as little impact to migratory birds as possible. This can be accomplished by gathering information on avian resources as they relate to project siting and by implementing measures to minimize impacts to migratory birds from the construction and operation of the wind facility.

Wind developers are encouraged to avoid impacts to prairie and other native habitats to the maximum extent practicable. Avoidance of impacts can be most effectively achieved by taking a landscape-scale view, beginning with the process of prospecting for suitable sites for wind power development. Companies should assess not only those factors that indicate favorable conditions for development, such as a consistent wind resource, access to transmission, willing landowners, available financing, etc., but also anticipated impacts to wildlife and their habitats. Equal consideration should be accorded to wildlife resource conservation as to other features of development. When considering a project in a particular wind resource area, companies should use all available tools to ensure they have taken all practicable steps to avoid impacts to native habitats. This can be accomplished by utilizing GIS products depicting significant areas of contiguous prairie to site development in areas that are already impacted or fragmented. This analysis and potential site comparison should be accomplished prior to making any significant financial commitments, including entering into lease agreements with landowners. The Service's Interim Wind Turbine Siting Guidelines encourage project proponents to conduct a Potential Impact Index (PII) analysis on several potential sites within wind resource areas to assist in their selection of a wind power site that minimizes the potential to impact migratory birds and other wildlife. If the Service's interim guidelines were not used to evaluate potential sites for development, the Service recommends that the developer or Federal agency use another method that compares avian and other wildlife resource impacts on several sites before selecting a particular site for development. The alternatives analysis for the project should describe the potential project sites that were evaluated and why they were rejected or selected based on potential trust resource impacts.

The Service has coordinated with the Avian Power Line Interaction Committee (APLIC) to develop guidelines to assist companies in formulating Avian Protection Plans (APP). These plans are utility-specific and designed to provide a structured way for a company to reduce avian mortality resulting from interactions with electric utility facilities (e.g. collisions and

electrocutions), but we suggest they may be adapted to wind energy facilities as well. The APP can be tailored to each utility's industry-specific and site specific wildlife needs, while in the process furthering avian conservation and improved reliability and customer service. Implementing the principles contained in these APP guidelines will greatly reduce avian risk as well as risk of enforcement under the Migratory Bird Treaty Act (MBTA). The guidelines can be accessed from the Service's website at http://www.fws.gov/migratorybirds/. We strongly encourage the project developer of the proposed wind energy facility to investigate the formulation of an APP or if bats may also be affected by the project, an Avian and Bat Protection Plan (ABPP). An example of a completed ABPP can be found at Iberdrola Renewables' website at http://www.iberdrolarenewables.us/pdf/Signed_ABPP_10-28-08.pdf.

To minimize the electrocution hazard to birds, the Service, with support from the Rural Utilities Service, recommends that new or updated overhead power lines be constructed in accordance with the current guidelines for preventing raptor electrocutions. The recommended guidelines can be found in "2006 Suggested Practices for Avian Protection on Power Lines". To increase power line visibility and reduce bird fatalities resulting from collisions with power lines, the Service recommends all new power lines that cross or run adjacent to rivers or large wetlands be modified according to "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994". Both publications can be obtained by writing or calling the Edison Electric Institute, P.O. Box 266, Waldorf, Maryland 20604-0266, (1-800-334-5453) or visiting their website at www.eei.org.

The Migratory Bird Treaty Act prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the MBTA has no provision for allowing unintentional take, the Service realizes that some birds may be killed by wind power towers or power lines even if all reasonable measures to protect them are used. The Service's Office of Law Enforcement carries out its mission to protect migratory birds through investigations and enforcement, as well as by fostering relationships with individuals, companies, and industries that have taken effective steps to minimize their impacts on migratory birds, and by encouraging others to enact such programs. It is not possible to absolve individuals, companies, or agencies from liability even if they implement avian mortality avoidance or similar conservation measures. However, the Office of Law Enforcement focuses its resources on investigating and prosecuting individuals and companies that take migratory birds without regard for their actions or without following recommendations such as this to avoid take. Siting, construction and operating wind facilities, in accordance with the recommendations provided by the Service, and implementing an APP or ABPP that has been reviewed and approved by the Service, are strong indicators of a good faith effort by wind companies to reduce the impacts to migratory birds.

To avoid impacts to migratory birds or other wildlife during the breeding season (February 1 to July 15), schedule construction for late summer or fall/early winter. If work is proposed to take place during the breeding season or at any other time which may result in the take of migratory birds, eggs, or active nests, the Service recommends that the project proponent arrange to have a qualified biologist conduct a field survey of the affected habitats to determine the absence or presence of nesting migratory birds. If nesting migratory birds are found, we request you contact

this office, suspend construction, or take other measures, such as maintaining adequate buffers, to protect the birds until the young have fledged. The Service further recommends that field surveys for nesting birds, along with information regarding the qualification of the biologist(s) performing the surveys, and any avoidance measures implemented at the project site, be throughly documented and that such documentation be shared with the Service and maintained on file by the project proponent at least until such time as construction on the proposed project has been completed.

Threatened and Endangered Species

A list of Federally threatened and endangered species that may occur within the proposed project's area of influence is enclosed (enclosure 1). This list fulfills requirements of the Fish and Wildlife Service under Section 7 of the Endangered Species Act.

If a Federal agency , in this case Western, authorizes, funds, or carries out a proposed action, the responsible Federal agency, or its designated agent, is required to evaluate whether the action "may affect, likely to adversely affect" listed species. If the Federal agency determines the action "may affect, likely to adversely affect" listed species, then the responsible Federal agency shall request formal section 7 consultation with this office, or work with this office to remove the likely adverse effects before proceeding. If the evaluation shows a "no effect" determination for listed species, further consultation is not necessary. If a private entity receives Federal funding for a construction project, or if any Federal permit is required, the Federal agency may designate the fund recipient or permittee as its agent for purposes of informal section 7 consultation.

The Aransas Wood Buffalo Population (AWBP) of whooping cranes is the only self-sustaining migratory population of whooping cranes remaining in the wild. These birds breed in the wetlands of Wood Buffalo National Park in Alberta and the Northwest Territories of northern Canada, and overwinter on the Texas coast. Whooping cranes in the AWBP annually migrate through North Dakota during their spring and fall migrations.

Endangered whooping cranes have been documented using stopover habitat in the vicinity of this proposed wind resource area. The proposed wind project area is located in that portion of the whooping crane migration corridor that includes 75% of all confirmed whooping crane sightings in North Dakota (enclosure 2). The presence of suitable roosting and feeding habitat for whooping cranes indicates the potential for whooping crane presence in the proposed project area. A wind energy project in this wind resource area has the potential to affect whooping cranes during their annual spring and fall migration through North Dakota. Potential effects may be direct (e.g. collision mortality) or indirect (e.g. avoidance of the site resulting in cranes seeking alternate habitat). The interactions of whooping cranes with wind turbines and wind farms are currently not fully known, although it is expected that these large birds with relatively low maneuverability are susceptible to mortality via collisions with turbines. Currently, collisions with power lines are the greatest known source of mortality for fledged whooping cranes, and have accounted for the death or serious injury of at least 46 whooping cranes since 1956.

Fish and Wildlife Service Property Interests

The Service administers Waterfowl Production Areas owned in fee title as well as wetland and grassland easements throughout North Dakota. A review of Service realty records for the proposed project area indicates Service wetland easements interests in T. 141 N., R. 78 W., Section 19, N½., Burleigh County. The Service has an ongoing easement acquisition program and we recommend that for Burleigh County, contact Paul VanNingen, Wildlife Refuge Manager, Long Lake National Wildlife Refuge, 12000 353rd Street SE, Moffit, North Dakota 58560-9740, (701-387-4397), for more specific information relative to Service easements and up to date realty records.

The primary responsibility in protecting these easements is to review all proposed uses to ensure that the requests are compatible with Service easement regulations and various laws and policies. Therefore, these comments and suggestions are made in an attempt to accomplish three goals: 1) avoid impacts to Service grassland and wetland easements in the project area as much as possible; 2) if unavoidable, ensure that any proposed turbine and associated infrastructure impacts (roads, buried collection lines, transmission lines, sub-stations, etc.) on any Service easement areas are kept to an absolute minimum; and 3) investigate all potential alternatives to eliminate or reduce impacts to easement areas to protect the integrity of the easement.

High Value Habitat Avoidance

The proposed project area is located in the Coteau Slope region of North Dakota and includes areas of native mixed-grass prairie. Since the 1800s, North Dakota has lost approximately 75 percent of its native grasslands, primarily due to crop production. The Service recommends avoiding construction or disturbance on native prairie areas.

Native prairie has significant natural resource values including:

1. Provides habitat for a number of migratory and resident grassland birds whose populations are declining.
2. Provides nesting habitat for millions of waterfowl.
3. Contains 200-300 plant species, which provide genetic diversity important to agriculture and medicine.
4. Provides habitat for thousands of insects including the Dakota skipper, a candidate species for listing under the ESA, and other butterflies (Ex: Regal fritillary, Tawny crescent).
5. Crucial for soil and water conservation.
6. Provides recreational opportunities (hunting, bird watching/wildlife observation, hiking).
7. Living laboratories for scientific research.

Our review of NWI maps indicate that wetland areas are located within the project area. NWI data can be accessed directly by visiting their website at wetlands.fws.gov). Section 404 of the Clean Water Act regulates placement of fill materials in certain wetlands. A Corps of Engineers'

404 permit may be required if fill material will be placed in aquatic sites including wetlands. Contact Mr. Dan Cimarosti, Regulatory Office, Corps of Engineers, 1513 South 12th Street, Bismarck, North Dakota 58504 (701-255-0015), to determine their permit requirements. If a 404 permit is required, the Service will provide recommendations on this project to the Corps.

Other high value wildlife habitat types in North Dakota include wooded draws and riparian forests. We recommend that avoiding construction of wind towers and appurtenant facilities in the above habitat types whenever possible.

Construction activities should be conducted in a manner that will minimize impacts to the wildlife and the existing habitat in the project area. To help avoid impacts, we recommend that you:

- Avoid construction in native prairie, if possible, and reseed disturbed native prairie with a comparable native grass/forb seed mixture. Obtain seed stock from nurseries within 250 miles of the project area to insure the particular cultivars are well adapted to the local climate.
- Minimize grassland disturbance by using fewer, larger turbines and limiting new road construction.
- Use underground transmission lines between turbines, as well as to the primary substation. If construction of overhead transmission lines are unavoidable, install and maintain appropriate visual line marking devices on all new line and an equal length of existing line to reduce the potential for avian collision mortality.
- Design meteorological towers to be self standing (no guywires). If towers must be guyed, install and maintain appropriate visual line marking devices on the new towers and an equal number of existing towers to reduce the potential for avian collision mortality
- Locate appurtenant facilities to avoid placement of fill in wetlands along the route.
- Install and maintain appropriate erosion control measures to reduce sedimentation and water quality degradation of wetlands and streams near the project area.
- Replace unavoidable wetland losses with functionally equivalent wetlands.

Research, Monitoring, and Assessment

We encourage project proponents to conduct, at a minimum, three years of collision monitoring studies designed to determine the effect of several factors, such as site selection, turbine designs, the layout of wind plants, wind plant operations, habitat alteration, and changes in available perching and nesting sites, on bird deaths. Annual reports outlining the results of these monitoring studies should be submitted to this office. The Avian Subcommittee of the National Wind Coordinating Committee (NWCC) has developed a guidance document to assist wind energy developers in designing studies that will produce credible and comparable results of avian interaction with wind power plants. The NWCC document, "Studying Wind Energy/Bird Interactions: A Guidance Document. Metrics and methods for determining or monitoring potential impacts on birds at existing and proposed wind energy sites," can be obtained by

contacting the National Wind Coordination Committee, c/o RESOLVE, 1255 23rd Street, Suite 275, Washington, D.C. 20037, or by visiting their website at www.nationalwind.org.

Thank you for the opportunity to provide comments. Please provide our office with a copy of the Draft Environmental Assessment for pre-approval review. If you require further information as project planning proceeds, please contact Terry Ellsworth of my staff, or contact me directly, at (701) 250-4481, or at the letterhead address.

Sincerely,

Jeffrey K. Towner

Jeffrey K. Towner
Field Supervisor
North Dakota Field Office

Enclosures (2)

cc: Long Lake WMD, Project Leader
(Attn: E. Meendering)
Ecological Services, Fish & Wildlife Service, Denver
Branch Conservation Planning Assistance (ERT), Washington DC
Office of Environmental Policy & Compliance, Washington DC
Regulatory Office, Army Corps of Engineers, Bismarck
(Attn: D. Cimarosti)
ND Public Service Commission, Bismarck
Director, ND Game & Fish Department, Bismarck
(Attn: M. McKenna)

FEDERAL THREATENED AND ENDANGERED SPECIES
AND DESIGNATED CRITICAL HABITAT FOUND IN
BURLEIGH COUNTY, NORTH DAKOTA
November 2009

ENDANGERED SPECIES

Birds

Interior least tern (Sterna antillarum): Nests along midstream sandbars of the Missouri and Yellowstone Rivers.

Whooping crane (Grus Americana): Migrates through west and central counties during spring and fall. Prefers to roost on wetlands and stockdams with good visibility. Young adult summered in North Dakota in 1989, 1990, and 1993. Total population 140-150 birds.

Fish

Pallid sturgeon (Scaphirhynchus albus): Known only from the Missouri and Yellowstone Rivers. No reproduction has been documented in 15 years.

Mammals

Gray wolf (Canis lupus): Occasional visitor in North Dakota. Most frequently observed in the Turtle Mountains area.

THREATENED SPECIES

Birds

Piping plover (Charadrius melodus): Nests on midstream sandbars of the Missouri and Yellowstone Rivers and along shorelines of saline wetlands. More nest in North Dakota than any other state.

DESIGNATED CRITICAL HABITAT

Birds

Piping Plover - Missouri River - Critical habitat includes sparsely vegetated channel sandbars, sand and gravel beaches on islands, temporary pools on sandbars and islands, and the interface with the river.

Western
AREA POWER
ADMINISTRATION

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April 7, 2010, 5-8 PM Wilton School Gym
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☑ I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.
☑ I prefer electronic/email communication.
☐ I prefer paper mailings.

Please Print Contact Info Below

Name:	Organization:
MARC LAURIE	
E-mail address:	Daytime Phone No. *(optional)*:
WHYND@DISHMAIL.NET	(701) 471-2243
Street Address:	City / State / Zip Code:
10163 214th AVE NE	BALDWIN, ND 58521

Please indicate any questions, comments or concerns you have about the proposed agreement modification in the comment section below (continue on separate sheet if necessary).

SEE ATTACHED LETTER

Thank you for your time and interest.

April 08, 2010

Dear Sir:

I am employed with the Federal Government and I'm concerned with my property value and the negative health effects of wind turbines to my family.

19 years ago I signed a mobility agreement, which in essence allows my employer to force a move at anytime. If I have to move and my property is de-valued because of the proximity of the wind turbines, then when the property sells (if at all), I am forced to make up the difference.

If I want to promote, promotion possibilities are outside the Bismarck area. If I can't sell my house, my family suffers the hardship of staying or I'm forced not to take the promotion. I would then have incurred a loss of wages, not only during the years of employment, but also during the years of retirement.

I know that you work with individuals with regards to problems that they have been subjected to, because of the proximity of the wind turbines to their residences. One such example is Jim Theurer of Wilton, North Dakota. Jim sent me an email regarding his concerns. Jim lives 1 mile north of the Wilton Wind Project and has lived at that residence for the last two years. When Jim moved into that residence, there were wind towers located only to the northwest, now they are to the northeast too.

Jim has been experiencing the following problems: Loud noise from the gear box and doors on the wind tower cone; Blade noise passing the column – clear days when blades facing north and northwest; on cold days, especially foggy days the noise is so loud you can't hardly talk to another person in the yard. Jim has told me that the noise has scared his daughter while playing in the yard, effects his sleep, affected his horses and dogs; finally, his family's overall quality of life has been affected negatively.

Jim is a common sense kind of guy and he has said that if he tried to sell his house on one of those days when it's loud, he doesn't think anyone would purchase the home.

On the contrary, there is John Spitzer, another resident of Wilton, North Dakota. At a Burleigh County, North Dakota Planning Commission meeting in March 2010, John stated that he lived three miles from Highway 83 and two miles from the Wilton Wind Farm. John stated that Highway 83 was louder than the wind farm. Again my concern is the proximity of my residence to the wind turbines in the Baldwin Wind Project, which I believe will be closer than a mile.

With my concern in mind, please review the 2009 Wind Turbine Impact Study by Appraisal Group One in Wisconsin. This study is of the impact that wind turbines have on residential property in Wisconsin. The conclusions include that 60% of the participants thought that the presence of a wind turbine was negative and that the average unimproved and improved land value decreases by 40% for properties within ½ mile wind turbine. For residents within ½ mile of a wind turbine, some residents have had a negative impact on health and quality of life. Of the studies that found no impact on property value, nearly all were funded by wind farm developers or renewable energy advocacy groups. This study by Appraisal Group One concluded that it is reasonable to conclude that some residents in close proximity to wind turbines experience genuine negative health effects from Low Frequency Noise, infrasound and blade flicker. The study also points out that an average setback from a residence of a

little over a mile should significantly lessen detrimental health effects. I know that NextEra denies any de-valuation in property, citing the Dept. of Energy's study of over 7400 sales of single family homes within 10 miles of 24 farms in nine states. Only 125 of those homes were within a mile of a wind farm after construction or 1.67 % of the approximate 7400....My home will be affected by a 1,750 foot setback. Only 60 homes were within a 3,000 feet of a wind farm or 0.8 % located within 3000 feet. The Appraisal Group One Study at least makes an apple to apple comparison.

NextEra also cites the The American/Canadian Wind Energy Association Panel Review. This review does not deny there are victims experiencing adverse health effects from industrial wind turbines. One author: W. David Colby stated: We're not denying that there are people annoyed and that maybe some of them are getting stressed out enough about being annoyed. The Panel review acknowledges that wind turbine noise can cause annoyance stress and sleep disturbance. The Panel review acknowledges that wind turbine low frequency noise can cause annoyance. One author Geoff Leventhall acknowledges the serious nature of low frequency noise induced annoyance... Stating the claim that their lives have been ruined by the noise is not an exaggeration.

The NASA technical paper "WIND TURBINE ACOUSITICS" explains that people who are exposed to wind turbine noise inside buildings experience a much different acoustic environment than do those outside...They may actually be more disturbed by the noise inside their homes than they would be outside. One of the common ways that a person might sense the noise induced excitation in a house is through structural vibrations. This mode of observation is particularly significant at low frequencies, below the threshold of normal hearing.

I have reviewed that NextEra Participation Option Agreement and I find that it implies that NextEra believes that there are problems connected to the Wind Farms. Specifically related to the portion of the agreement that grants the operator a non-exclusive easement for sounds, visual, light, flicker, shadow, vibration, wake, electromagnetic, electrical and radio frequency interference, and any other effects on the property caused or alleged to be caused by the Wind Farm.

I respectively request that NextEra not place any Wind Towers in Section 13 of Crofte Township, Burleigh County, Baldwin, North Dakota.

Sincerely,

Marc Laurie

Marc Laurie
10163 214th Avenue NE
Baldwin, North Dakota 58521

Western
AREA POWER
ADMINISTRATION

Baldwin Wind Energy Center Open House
April 7, 2010, 5-8 PM Wilton School Gym
Public Comment Meeting (2)
Environmental Assessment (EA)

Thank you for your interest in the proposed Baldwin Wind Energy Center EA. Please complete the appropriate sections of this form to be included on the EA mailing list and/or to provide comments. Written comments can be submitted at the Scoping Meeting, faxed to (406) 247-7408, mailed to Mr. Matt Marsh, Western Area Power Administration, Upper Great Plains Customer Service Office, P.O. Box 35800, Billings, MT 59107-5800 or sent to the **NEPA Document Manager at mmarsh@wapa.gov.** To be included in our public comment process, please ensure your comments are postmarked or turned in by **April 21, 2010.**

☒ I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.
☐ I prefer electronic/email communication.
☐ I prefer paper mailings.

Please Print Contact Info Below

Name:	Organization:
GERALYN LAURIE	
E-mail address:	Daytime Phone No. *(optional)*:
whyndedishmail.net	701 323 7817
Street Address:	City / State / Zip Code:
10163 214th Ave NE	BALDWIN, ND 58521

Please indicate any questions, comments or concerns you have about the proposed agreement modification in the comment section below (continue on separate sheet if necessary).

NEXTERA is fully aware of the very Real problems that wind turbines create within ½ mile of a residence. Once again we Request that the turbines in Section 13 be moved or setback one-half mile from the nearest residence.

Thank you for your time and interest.

Western needs your input to identify issues and concerns for the proposed Baldwin Wind Energy Center Project EA

If you have any issues, concerns, or questions that you would like addressed in the Baldwin Wind Energy Center Project Environmental Assessment, please complete this response sheet and send it to Matt Marsh, Environmental Protection Specialist, Upper Great Plains Region, Western Area Power Administration, P.O. Box 35800, Billings, Montana 59107-5800, Fax: (406) 247-7408, E-mail: mmarsh@wapa.gov. If you prefer, give us a call at 1-800-358-3415 or email Matt Marsh at mmarsh@wapa.gov. You may also call Mr. Marsh directly at 406-247-7385.

Share your issues, concerns, or questions with us: (please send additional pages if you wish)

Envision Safety Services, LLP, a subsidiary of Envision Natural Resources Group, Inc, is a safety service company providing a high level of knowledge and safety over sight to projects like this one. If you are in need of third party safety services to oversee the safety aspect on this project, please call me at 701-250-0123. thank you.
Doug Hartman

Our mailing list

To have your name added or removed from our mailing list for this project, please check the appropriate box and return this response sheet to us. If you do not ask us to remove your name from our mailing list, we'll send you future EA-related announcements.

__ Yes, add my name to the mailing list to receive future information

__ No, please remove my name from your mailing list

Sign up to receive the EA for Review

Please also let us know if you would like to receive a copy of the Draft Environmental Assessment for Pre-Approval Review when it is available.

✓ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.
Name: Envision Safety Services, LLP Title: Director of Business Development
Mailing address: 3712 Lockport St., suite E
City, State, Zip: Bismarck, ND 58503
Phone: 701-250-0123 Fax: 701-250-0830 E-mail: doug@envisionNRG.com

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

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Share your issues, concerns, or questions with us: (please send additional pages if you wish)

What is the effect (long and short term) of exposure to the electromagnetic field generated by the wind towers, underground and overhead lines on plants, animals & humans.

Is there a minimum safe distance to stay away from these power sources or does this field extend for long distances?

Our mailing list

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✓ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: WARREN GORDEN Title: LANDOWNER

Mailing address: 2711 74TH ST. NW.

City, State, Zip: MINOT, ND 58703-8856

Phone: 701-838-7860 Fax: _____ E-mail: WK gorden @ min. midco. net

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

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Share your issues, concerns, or questions with us: (please send additional pages if you wish)

We would like to know the annual payments for each tower.

Our mailing list

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✓ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: Dwight Frankhouse Title: Farmer / Rancher
Mailing address: 3854 Renee dr
City, State, Zip: Bismarck No Dak 58503
Phone: 223-2706 Fax: _____ E-mail: _____

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

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✓ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: Delton + Jeanne Wulf Title: _____
Mailing address: 1000 W Century Ave # 386
City, State, Zip: Bismarck, N.D. 58503
Phone: 355-1259 Fax: _____ E-mail: _____

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

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__ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: Jerry Wulf Title: _____

Mailing address: 2890 104th Ct E

City, State, Zip: Inver Grove Hts, MN 55077

Phone: 651-457-7197 Fax: _____ E-mail: pelofox@comcast.net

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

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✓ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: Allen L Schumacher Title:

Mailing address: 2908 E Ave C

City, State, Zip: Bismarck ND 58501

Phone: 7012222987 Fax: E-mail: arschum@q.com

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

From: David Jenkins
To: mmarsh@wapa.gov;
Subject: Baldwin Wind Energy EA Comment
Date: Wednesday, April 21, 2010 10:57:52 PM

Mr. Marsh,
I am requesting the following statement be included in the public comment section of the Environmental Assessment for the proposed changes to the Baldwin Wind Energy Project in Burleigh County, North Dakota. Also, I would like to be kept informed of the ongoing progress of this project. Please include my name on the mailing list.

Sandra L. Peterson
sunshine@bektel.com 4701--331st Ave NE, Wilton ND 58579-9514 701-734-6734

To Whom it may concern:

My family lives in Grass Lake Township, in Burleigh County, just east of the town of Wilton, ND. My husband and I purchased a homestead site with 80 acres in the fall of 1995. We purchased this particular piece of property because it had been a working farm and was in a farming community. To put it bluntly, we wanted the peace and quiet of country living and I wanted the opportunity of being able to go back to my farming roots, albeit on a much smaller scale. Considering the size of the acreage, I knew it was only a matter of time before others might buy up the smaller parcels adjoining ours. Two years ago, two adjoining 40 acre lots were sold by the individual from whom we had purchased our land. So, you could say we are now living in a small subdivision of Wilton, having neighbors a stone's throw from our barn. While having neighbors sharing our little piece of prairie was bad enough, this was also about the same time the first 30 wind towers were put up in Ecklund Township. Although they are three miles south of us, they are a constant irritant. As a former industrial photographer, I can appreciate their design, but am not particularly pleased that what was once an open prairie vista is now marred by a long line of these towers. Worse than being a visual nuisance is the constant droning sound and the effect they have on our television reception. On any given day, at least one channel will be unwatchable because the video and audio signal is so badly broken up and full of static.

The proposed expansion(s) of the Baldwin Wind Energy Center will put us

within 1/2 mile of the closest towers, but virtually all of them will be visible from our farm. We will have them on all sides, except on the ridge directly north of us. With the way this project appears to have been handled, I am guessing that it is just a matter of time before there are towers on that ridge, as well. I was aware of the possible expansion in Crofte Township. I'm assuming that one became more public because of it's proximity to Bismarck and, therefore, received more publicity in the media. I had no idea of the Grass Lake expansion until just recently and am wondering why only those landowners who would directly benefit from the project were informed? I know enough about engineering projects to know that something of this magnitude is not brainstormed and planned in a couple of weeks. Assuming this was in the plan when the first towers were built, why wasn't every landowner informed?

I am not opposed to developing sources of renewable energy. What I am opposed to is out of state power companies coming into this state, bound and determined to rape the natural beauty of North Dakota's prairies by putting a wind tower on every available ridge and hillside and claiming it's good for the environment. Who decided North Dakota should become the nation's newest industrial park? This project is pitting neighbor against neighbor. Those that stand to directly benefit financially from these towers tend to be for the project, those who will not are generally opposed. Then, there are those of us, who not only will see no direct financial benefit from this project, but stand to potentially lose financially in lost real estate values as well as losing every intrinsic value and reason for choosing to live here in the first place. I chose to live in an agrarian community, not a high tech industrial park disguised as cultivated fields and pastures. I am curious how long it will take before the farmers and ranchers in this state, who have prided themselves on being good stewards of the land and environment, realize they sold their souls, and this state, to the god of Corporate Greed.

Respectfully submitted,
Sandra L. Peterson
April 21, 2010

Our mailing list

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✓ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.

Name: Terry & Deb Vesey Title: _____

Mailing address: 34740 80th St NE

City, State, Zip: Wilton ND. 58579

Phone: 701-734-6993 Fax: 701-734-6994 E-mail: tdvesey@yahoo.com

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

Western
AREA POWER
ADMINISTRATION

Baldwin Wind Energy Center Open House
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- [X] I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.
- [ ] I prefer electronic/email communication.
- [X] I prefer paper mailings.

Please Print Contact Info Below

Name:	Organization:
Jeremy Hruby	
E-mail address:	**Daytime Phone No. *(optional)*:**
elk_famer@hotmail.com	701-391-1160
Street Address:	**City / State / Zip Code:**
34410 Hwy 41	Wilton, ND 58579

Please indicate any questions, comments or concerns you have about the proposed agreement modification in the comment section below (continue on separate sheet if necessary).

I want to be kept informed about every detail pertaining to this project.
I am strongly against having the towers placed so close to my land / property. I feel they are very ugly and they will de-value my land.
I know people who have them close to their properties and they are not as quiet / friendly as they are made out to be.

Thank you for your time and interest.

From: Martorano, Tracey
To: Griger, Anne-Marie;
Subject: FW: Baldwin Wind Energy Center Project
Date: Wednesday, April 07, 2010 8:40:40 AM

FYI

Tracey M. Martorano, P.E. | **Senior Project Manager**
Direct: 617.443.7552 | Main: 617.443.7500 | Fax: 617.737.3480 | **Cell: 617.784.4601**
Tracey.Martorano@tetratech.com

Tetra Tech | **Energy Program**
160 Federal Street, Third Floor | Boston, MA 02110 | www.tetratech.com

NOTE: New Address and Direct Telephone Number

From: Matt Marsh [mailto:MMarsh@wapa.gov]
Sent: Tuesday, April 06, 2010 2:40 PM
To: Jeff.Forster@dot.gov
Cc: ALLEN WYNN; Martorano, Tracey
Subject: Re: Baldwin Wind Energy Center Project

Thanks Jeff. I will have you added to our mailing list and ensure you receive a copy of the draft EA.
Matt

Matt Marsh
Environmental Protection Specialist
Western Area Power Administration
P.O. Box 35800
Billings, MT 59107-5800
406-247-7385 (office)
406-670-7479 (cell)

>>> <Jeff.Forster@dot.gov> 4/6/2010 8:54 AM >>>
In reference to your SOV letter sent to Federal Highway Administration 3/19/2010. Please keep us informed on the subject project and send the draft EA for our information when completed. We will only comment if the improvements effect the Federal Aid Highway Route or project in the area limiting the future growth or safety improvements to the routes, including height restrictions below standards. Thanks!

Jeffrey L. Forster, P.E.

FHWA - North Dakota Division
1471 Interstate Loop
Bismarck North Dakota
701-250-4343 Ext: 110

From: Martorano, Tracey
To: Griger, Anne-Marie;
Subject: FW: Baldwin Wind Energy Facility
Date: Tuesday, March 30, 2010 9:11:28 AM

FYI

Tracey M. Martorano, P.E. | **Senior Project Manager**
Direct: 617.443.7552 | Main: 617.443.7500 | Fax: 617.737.3480 | **Cell: 617.784.4601**
Tracey.Martorano@tetratech.com

Tetra Tech | **Energy Program**
160 Federal Street, Third Floor | Boston, MA 02110 | www.tetratech.com

NOTE: New Address and Direct Telephone Number

From: Matt Marsh [mailto:MMarsh@wapa.gov]
Sent: Tuesday, March 30, 2010 9:56 AM
To: ALLEN WYNN; Martorano, Tracey
Subject: Fwd: Baldwin Wind Energy Facility

Here's a comment for the second round of scoping for the record.
Matt

Matt Marsh
Environmental Protection Specialist
Western Area Power Administration
P.O. Box 35800
Billings, MT 59107-5800
406-247-7385 (office)
406-670-7479 (cell)

>>> "Lennell Wulf" <lwulf@rtc.coop> 3/29/2010 4:22 PM >>>
Matt Marsh,

My mother owns the SE ¼ of section 28 in TOWNSHIP 143, RANGE 79 in Burleigh County, which falls in the proposed Baldwin Wind Energy project expansion. We have been contacted by Next Era and do support this proposed expansion and addition of wind turbine generators in this area.

Sincerely,

Lennell Wulf
lwulf@rtc.coop
home: (701)337-5489
business: (701)442-7015

From: Martorano, Tracey
To: Griger, Anne-Marie;
Subject: FW: Re: Baldwin Wind Engergy EA
Date: Monday, April 12, 2010 12:43:33 PM

FYI

Tracey M. Martorano, P.E. | **Senior Project Manager**
Direct: 617.443.7552 | Main: 617.443.7500 | Fax: 617.737.3480 | **Cell: 617.784.4601**
Tracey.Martorano@tetratech.com

Tetra Tech | **Energy Program**
160 Federal Street, Third Floor | Boston, MA 02110 | www.tetratech.com

NOTE: New Address and Direct Telephone Number

From: Matt Marsh [mailto:MMarsh@wapa.gov]
Sent: Monday, April 12, 2010 1:40 PM
To: ALLEN WYNN; Martorano, Tracey
Subject: Fwd: Re: Baldwin Wind Engergy EA

Please add the below comments to the comment section of our EA. Thanks.
Matt

>>> Arlis Waltos <waltos@btinet.net> 4/12/2010 10:38 AM >>>
Thank you Matt, my husband and I did attend the open house in Wilton on April 7. If you are accepting comments regarding wind farms, please accept this e-mail message as our comment.

From all that we see and hear from our congressional delegation and the governor's office, we believe they are in full support of a wind energy program. Wind energy is a means of complimenting our present energy sources. It is a clean, green source of energy. It is a renewable resource protecting our present natural resources. The areas that we have seen that have been proposed for wind farms are rural agricultural lands. These landowners are and should be entitled to use their land to generate income for themselves and their families. What better use than to generate additional power supply for our country, and in the process also generate local income for schools and counties.

We too often hear the phrase "Not in my backyard" (NIMBY) and that their views are being obstructed. But, if one takes a drive along the highway you will see many other things criss crossing the landscapes such as the large electric power towers

and poles and cell phone towers, to mention a couple. Wind energy is progress and we should be embracing this concept.

We also hear comments regarding health problems, but no health problems have been substantiated. People fear change, but change is inevitable as I have experienced first hand in our own area.

Thank you for taking these comments.

Arlis Waltos and Gerald Waltos

----- Original Message -----
From: Matt Marsh <MMarsh@wapa.gov>
Date: Friday, April 9, 2010 2:53 pm
Subject: Re: Baldwin Wind Engergy EA
To: Arlis Waltos <waltos@btinet.net>

> Hi Arlis,
> Here's what we handed out at the meeting in Wilton on the evening of
> the 7th of April. Let me know if you have any questions, comments or
> concerns. Thanks.
> Matt
>
> >>> Arlis Waltos <waltos@btinet.net> 3/23/2010 3:57 PM >>>
> Thank you. Have a good evening!
>
> ----- Original Message -----
> From: Matt Marsh <mmarsh@wapa.gov>
> Date: Tuesday, March 23, 2010 12:04 pm
> Subject: Re: Baldwin Wind Engergy EA
> To: waltos@btinet.net
>
>
> > I sure will. I am in Bismarck this week, but when I get back in the
>
> > office on Monday I will send you what I sent out in the Public
> Notice
> > to landowners and agencies and then after the meeting I can compile
>
> > any other information that was given out.
> > Matt
> >
> > Matt Marsh
> > Environmental Protection Specialist
> > Western Area Power Administration

> > P.O. Box 35800
> > Billings, MT 59107-5800
> > 406-247-7385
> > >>> Arlis Waltos 03/23/10 8:19 AM >>>
> > Could you please send me by e-mail the information on the meeting
>
> > that will be held on April 7? Thank you.
> >
>

United States Department of Agriculture
Natural Resources Conservation Service
PO Box 2890
Washington, DC 20013

NRCS

Official Business
Penalty for Private Use $300

Mr. Matt Marsh
Department of Energy
Western Area Power Administration
Upper Great Plains Customer Service Region
P.O. Box 35800
Billings, MT 59107-5800

59107$5800 B500

Our mailing list

To have your name added or removed from our mailing list for this project, please check the appropriate box and return this response sheet to us. If you do not ask us to remove your name from our mailing list, we'll send you future EA-related announcements.

__ Yes, add my name to the mailing list to receive future information

X No, please remove my name from your mailing list

Sign up to receive the EA for Review

Please also let us know if you would like to receive a copy of the Draft Environmental Assessment for Pre-Approval Review when it is available.

__ Send me the EA for review

Tell us how to reach you

Please give us your name, address, phone, fax, and e-mail, so we can keep you up-to-date about this project.
Name:_____ _____Title:_____
Mailing address:_____
City, State, Zip: _____
Phone: _____Fax:_____ _E-mail: _____

Contact Us

For more information, contact Mr. Matt Marsh, Western Area Power Administration, Phone: (406) 247-7385, E-mail: mmarsh@wapa.gov

Western
AREA POWER
ADMINISTRATION

Baldwin Wind Energy Center Open House
April 7, 2010, 5-8 PM Wilton School Gym
Public Comment Meeting (2)
Environmental Assessment (EA)

Thank you for your interest in the proposed Baldwin Wind Energy Center EA. Please complete the appropriate sections of this form to be included on the EA mailing list and/or to provide comments. Written comments can be submitted at the Scoping Meeting, faxed to (406) 247-7408, mailed to Mr. Matt Marsh, Western Area Power Administration, Upper Great Plains Customer Service Office, P.O. Box 35800, Billings, MT 59107-5800 or sent to the **NEPA Document Manager at mmarsh@wapa.gov.** To be included in our public comment process, please ensure your comments are postmarked or turned in by **April 21, 2010.**

- ☐ I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.
- ☐ I prefer electronic/email communication.
- ☐ I prefer paper mailings.

Please Print Contact Info Below

Name:	Organization:
Joyce Wald.	Ranch
E-mail address:	Daytime Phone No. *(optional)*:
	701-258-1069
Street Address:	City / State / Zip Code:
9451 201 Ave NE	Baldwin, ND. 58521

Please indicate any questions, comments or concerns you have about the proposed agreement modification in the comment section below (continue on separate sheet if necessary).

First and foremost do you guys have Wind towers in and around your yard and house Are you sure there's no noise, and have no health effects? No of course not. You shovel a lot of SHIT, but no personal proof. Greed will always Kickback the wrong way. Didn't your Mother ever tell you, "What goes around Come back around 10 fold. Shame on you if you didn't listen. You Sold your soul to the Devil you'll never get it back.

Thank you for your time and interest.

Western
AREA POWER
ADMINISTRATION

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April 7, 2010, 5-8 PM Wilton School Gym
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- ☐ I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.
- ☐ I prefer electronic/email communication.
- ☐ I prefer paper mailings.

Please Print Contact Info Below

Name:	Organization:
Raymond Wald	NIMBY
E-mail address:	Daytime Phone No. *(optional)*:
	701-258-1069
Street Address:	City / State / Zip Code:
9451 201 Ave NE	Baldwin, ND 58521

Please indicate any questions, comments or concerns you have about the proposed agreement modification in the comment section below (continue on separate sheet if necessary).

All you're doing is putting neighbor against neighbor, nobody has to lose out of this, just stay out of peoples back yards. People have fought wars over property rights, what gives you the right to destroy. Wind Towers would never be put up if it wasn't for peoples tax dollars.

Thank you for your time and interest.

"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

April 20, 2010

Matt Marsh
Environmental Protection Specialist
Upper Great Plains Region
Western Area Power Administration
PO Box 35800
Billings, MT 59107-5800

Dear Mr. Marsh:

RE: Baldwin Wind Energy Center Project EA

The North Dakota Game and Fish Department originally commented on this project in November 2009. In reviewing the expanded project area, our previous comments are still appropriate.

In addition, the expanded project area borders the Wilton Mine Wildlife Management Area (WMA). We ask that wind turbines be set-back from the WMA a sufficient distance to minimize possible disturbance to wildlife.

We would like to receive a copy of the Draft Environmental Assessment for Pre-Approval Review when it is available.

Sincerely,

Steve Dyke

(for) Michael G. McKenna
Chief
Conservation & Communication Division

js

Western
AREA POWER
ADMINISTRATION

Baldwin Wind Energy Center Open House
April 7, 2010, 5-8 PM Wilton School Gym
Public Comment Meeting (2)
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☒ I would like to be kept informed of the ongoing progress of this Project. Please include my name on the mailing list.
☒ I prefer electronic/email communication.
☐ I prefer paper mailings.

NOTE I did visit with MR. MARSH AT the WILTON Meeting! We discussed Some Technical ASPECTS OF the TURBINES.

Please Print Contact Info Below

Name:	Organization:
VERNON J. SPITZER	
E-mail address:	**Daytime Phone No. *(optional)*:**
VERN 52500@HOTMAIL.COM	701-258-2536
Street Address:	**City / State / Zip Code:**
23301 13TH ST. N.E.	BALDWIN, N.D.

Please indicate any questions, comments or concerns you have about the proposed agreement modification in the comment section below (continue on separate sheet if necessary).

HI
ABOUT 4 MONTHS BACK BURLEIGH COUNTY STARTED TO ENACT AN INDUSTRIAL WIND TURBINE ZONING ORDINANCE. THE COMMUNITY INPUT INDICATED THAT THE MOST IMPORTANT WAS THE "SET BACK" ISSUE. ONE-HALF MILE FROM RESIDENCE WAS NOT CONSIDERED FAR ENOUGH BUT WAS ACCEPTABLE. NEXTERA WORKED VERY HARD AND THE SET BACK WENT TO 1750 FT. I DON'T THINK THIS IS THE WILL OF THE COMMUNITY RESIDENCE AND IS A GROSS INJUSTICE TO NO PARTICIPATING PROPERTY OWNERS. AN ORDINANCE WHICH REFLECTS CITIZEN VIEWS, AND NOT THE POWER COMPANY IS VERY IMPORTANT

Thank you for your time and interest.

(Thank You Vern)