

November 9, 2018

Mr. Scott Larson
North Dakota Field Office, United States Fish & Wildlife Service
3425 Miriam Avenue
Bismarck, ND 58501

RE: Aurora Wind Project, LLC (2018-CPA-0017)

Dear Mr. Larson:

Aurora Wind Project, LLC (Aurora) is developing the Aurora Wind Energy Project (Project) in Williams County, North Dakota. Aurora submitted an Application for a Certificate of Site Compatibility to the North Dakota Public Service Commission on September 28, 2018 (Application). Prior to submitting the Application, Aurora's consultant, Burns & McDonnell (B&McD), sent consultation letters to various agencies and other stakeholders, including the North Dakota Field Office, United States Fish & Wildlife Service (USFWS). In response, we received your letter dated October 12, 2018. I am writing this letter to provide specific responses to the matters discussed in your letter. For clarity, "Project" in this letter only references the approximately 44,000-acre wind energy conversion facility in Williams County. The associated transmission facility will be addressed in separate correspondence.

As an initial matter, I spoke to Mr. Jerry Reinisch on October 24, 2018 regarding your letter. Per my discussion with Mr. Reinisch, I understand that the reference to the "BCWEC" project in the October 12 letter was a typographical error and therefore we will consider the USFWS intended to reference "Aurora".

Since you have been recently assigned to the Project, you may be unfamiliar with the history of Aurora's Project development and consultation with USFWS and the North Dakota Game and Fish Department (NDGFD). Aurora has been developing the Project in Williams County, North Dakota since 2016. Throughout development, Aurora has been committed to siting, constructing, operating, and decommissioning the Project in an environmentally responsible and sustainable manner. The Project followed the tiered decision framework outlined in the USFWS's Land Based Wind Energy Guidelines ("WEG"; USFWS 2012) and the Eagle Conservation Plan Guidance ("ECPG"; USFWS 2013) and coordinated this with USFWS and NDGFD. The Project has contracted with Western Ecosystems Technology, Inc. (WEST), Stantec Consulting Services (Stantec) and B&McD to conduct desktop and field surveys to evaluate the wildlife and potential habitat of sensitive species in the Project and surrounding areas. Below is a partial list of the field and desktop surveys completed within the Project and surrounding areas:

- Site Characterization Study (2017)
- Stage 1 Site Assessment of Eagle Use/Risk (2018)
- Eagle and Avian Use point count surveys (2016 - 2018)

- Aerial raptor and eagle nest surveys (2017 and 2018)
- Acoustic bat activity surveys (2017 and 2018)
- Sharp tailed-grouse lek surveys (2018)
- Whooping crane habitat assessment (2018)
- Wetland delineations (2018)

Aurora understands that early and often consultation with state and federal wildlife agencies is an important part of developing and operating wind energy projects for Aurora as well as being an integral part of the ECPG and WEGs, and has engaged with the North Dakota Field Office throughout development. Below is an outline of meetings and correspondences (where written correspondence is available) with your agency prior to your October 12, 2018 letter and my discussion with Mr. Reinisch on October 24, 2018:

- In person meeting with USFWS and NDGFD - February 8, 2017
- Letters to USFWS and NDGFD – December 21, 2017
- Email to USFWS – August 7, 2018
- Email to USFWS and NDGFD – August 13, 2018
- In person meeting with USFWS and NDGFD – August 16, 2018
- Email from USFWS – August 23, 2018
- Email transmittal of August 16, 2018 meeting notes to USFWS and NDGFD – September 12, 2018
- Email transmittal of updated August 16, 2018 meeting notes to USFWS and NDGFD – September 21, 2018

Copies of these meeting notes and correspondences are attached to this letter for your convenience and reference.

In addition to the consultation with USFWS, Aurora has also had regular contact, both written and in person, with the NDGFD since early 2017 on state wildlife laws, including species on the State of North Dakota Species of Conservation Priority list.

Several habitat types and specific species were addressed at length in your October 12, 2018 letter. For your information, below is a summary of the analysis and consultation that has occurred with respect to each.

Avian/Eagle Surveys

As indicated above and during our discussions with USFWS in February 2017 and August 2018 with Kevin Shelley, we noted to USFWS that the Project has been conducting monthly avian point count surveys, focusing on eagles, since May 2016. The Project has conducted 700 hours of surveys since that time. The Project also communicated with NDGFD in December 2017 and received a response in January 2018 that there were no known eagle nests within 10 miles of the Project boundary. That information was corroborated during aerial raptor and eagle nest surveys out to 10 miles from the Project boundary conducted in 2017 and 2018 when no eagle nests were

recorded. As we communicated to both the USFWS and the NDGFD in August 2018, the Project has elected to not seek coverage for eagle take under the Bald and Golden Eagle Protection Act through an Incidental Take Permit because Aurora feels the risk to eagles is very low.

USFWS Grassland and Wetland Easements

Aurora understands the importance of native grasslands and the value of the habitat they provide to a number of species that utilize the prairie pot-hole region. Aurora incorporated wetland and grassland easements held by USFWS into the siting and the design of the Project. Aurora communicated with the USFWS's Refuge Manager at the Lostwood Waterfowl Management District Complex in April 2018 for a review of the proposed Project area and again in August 2018 once a more refined Project area and design were known. Per written communication from the Refuge Manager in August 2018, *"I see no obvious issues or impacts to USFWS wetland and grassland easements; or Waterfowl Production Areas. A tremendous effort was obviously put forth to avoid direct impacts to USFWS property interests. I greatly appreciate your work."* (emphasis added).

Dakota Skipper

Avoidance of potential impacts to the federally threatened Dakota skipper was also considered during Project siting and avoidance of USFWS grassland easements. Per communications with Kevin Shelley, as the wind Project is wholly located within Williams County, the Project is outside the known range of the Dakota skipper and no impacts to this species are expected. Your letter of October 12 indicates *"Dakota skipper are known to occupy suitable habitats within your proposed project area (emphasis added)"*. However, Aurora is unaware of any known occurrences of Dakota skipper within the Project area, and the statement is contrary to the information provided in the many discussions and communications with USFWS regarding the Project that have occurred since February 2017 as well as information found on the USFWS webpage and IPaC webpage..

Sharp-Tailed Grouse

Though the Sharp-Tailed Grouse was not specifically addressed in your October 12, 2018 letter, the NDGFD raised concerns about the species and recommended lek surveys in their January 8, 2018 letter to the Project. Aurora conducted surveys in April and May of 2018 in accordance with NDGFD recommendations. Three leks (two confirmed and one potential) were identified during the spring 2018 surveys. As communicated to both USFWS and NDGFD on August 13 and August 16, 2018, the Project adjusted design to remove or shift all turbines to be at least one mile from these leks.

Whooping Crane

Aurora is within the migratory corridor of the Aransas/Wood Buffalo population of whooping cranes, which pass through the area twice per year during their spring and fall migrations. Mortality due to collision with transmission lines is a known threat to fledged whooping cranes (Stehn and Wassenich 2008); however, no turbine caused mortalities are known (Derby et al.

2012). During the siting and development of the Project, Aurora identified the Big Meadow Waterfowl Production Area (Big Meadow) as high quality stopover habitat near the Project. Aurora has set back all facilities a minimum of two miles from Big Meadow. Additional whooping crane-specific monitoring and avoidance measures will be outlined in the Project's Bird and Bat Conservation Strategy (BBCS) as communicated to both USFWS and NDGFD on August 13 and August 16, 2018. Per the WEGs, the BBCS is a living document and as the Project continues through construction and operations, potential risk to all species will continue to be evaluated and appropriate measures will be taken to address changes in the Project and surrounding area, if necessary.

In addition, during the wetland delineations completed by B&McD in 2018, Aurora took steps to minimize potential risk to existing avian stopover resources in the Project. During field surveys, the Project directed B&McD to analyze 1) all wetlands greater than 0.5 acres in size, 2) all wetlands considered to be high quality (smaller than 0.5 acres but located in non-agricultural fields and dominated by higher quality, non-invasive wetland species), and 3) all other wetlands. Aurora has taken this survey information into account with the design and micro siting of infrastructure.

Meteorological Towers

The Project installed six temporary and guyed meteorological towers (METs) at Aurora in January 2017. In accordance with Williams County Zoning Ordinance, Aurora sought and received Conditional Use Permits and building permits for each of these structures in 2016. All six METs are less than 200 feet in height, painted alternating orange and white, have aviation marker balls near the top of the tower and midway down on the outer most guy wires, and all guy wires are marked with bird diverters. Additionally, all six METs were installed in previously disturbed and tilled agricultural fields. Placement of these towers avoided ridgelines, wetlands and other bird concentration areas, such as known leks, staging areas, rookeries, and state or federal refuges. Aurora expects that permanent METs will be installed as part of the Project, which will be unguyed.

Survey Results and On-going Consultation

The results of the desktop and field surveys as well as consultation with USFWS and NDGFD will be outlined in the BBCS currently being drafted. As discussed in the meeting with Kevin Shelley with USFWS on August 16, 2018, and in meeting notes provided on September 21, 2018, the Project committed to sharing the draft BBCS with both USFWS and NDGFD for review and comment. In addition, Aurora noted that another meeting with both USFWS and NDGFD could potentially occur before the yet to be scheduled Public Service Commission public hearing to discuss any additional topics, including post-construction monitoring and habitat restoration. We would like to schedule this meeting in early December or early January.

Throughout development, Aurora has been committed to siting, constructing, operating, and decommissioning the Project in an environmentally responsible and sustainable manner. The Project followed the tiered decision framework outlined in the USFWS's Land Based Wind Energy Guidelines ("WEG"; USFWS 2012) and the Eagle Conservation Plan Guidance ("ECPG"; USFWS

2013) and coordinated this with USFWS and NDGFD. Aurora has taken steps to incorporate sensitive resources and USFWS and NDGFD input into the Project design and to minimize the potential to impact these resources.

Please feel free to contact me with any questions.

Sincerely,



Jennifer A. Dean
VP - Environmental Studies & Permitting
Tradewind Energy, Inc.
16105 West 113th Street, Suite 105
Lenexa, KS 66219
913-322-7428 - office
913-219-5004 - mobile
jidean@tradewindenergy.com

Attachments

cc: Dave Iadarola, Aurora
Brice Barton, Aurora
Clayton Derby, WEST
Justin Bailey, B&McD
Terry Steinwald, North Dakota Game and Fish Department
Greg Link, North Dakota Game and Fish Department
Steve Dyke, North Dakota Game and Fish Department
John Schumacher, North Dakota Game and Fish Department
Jerry Reinisch, United States Fish & Wildlife Service
North Dakota Public Service Commission (PU-18-352)



ENVIRONMENTAL & STATISTICAL CONSULTANTS

4007 State Street, Suite 109, Bismarck, ND 58503
Phone: 701-250-1756 • www.west-inc.com • Fax: 701-250-1761

TO: USFWS and NDGFD

RE: Aurora Wind Farm Survey Update and Planning for Future Efforts

DATE: February 8, 2017

Western EcoSystems Technology, Inc. (WEST) has been assisting Aurora Wind Project, LLC (Aurora), a subsidiary of Tradewind Energy, Inc., in implementing Tier 2 and 3 actions as described in the USFWS Wind Energy Guidelines (WEG) and USFWS Eagle Conservation Planning Guidance (ECPG) for the proposed Aurora Wind Farm (Project). The Project encompasses approximately 54,316 acres and is located in Williams County, North Dakota (see attached figures). The purpose of this memo is to facilitate a discussion related to ongoing activities as well as future efforts that may be appropriate for the Project. Aurora understands that there are ongoing activities in North Dakota between wind project developers, agencies, and NGOs and that these concurrent discussions may help shape future survey needs.

Current Efforts

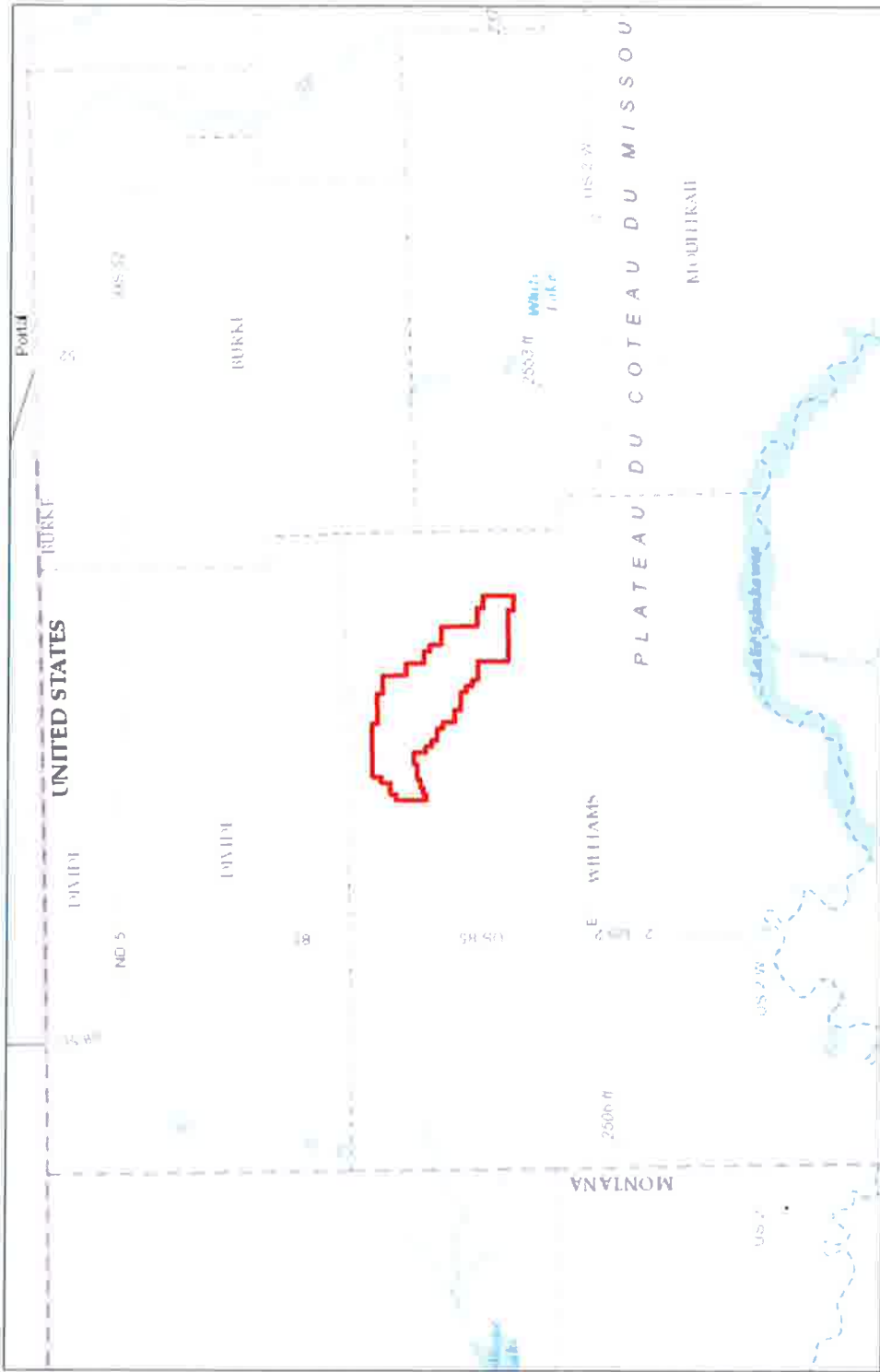
- Site Characterization Study (SCS)
- ECPG Stage 2 Eagle Evaluation
- Whooping Crane Habitat Evaluation
- Eagle/Avian Use Surveys

Future Efforts

In addition to the efforts described above that are completed or ongoing, Aurora is contemplating the need for any future survey needs to help inform risk and Project layout. There may be opportunities to inform and/or offset potential Project impacts without the need for extensive field surveys. Future efforts could include:

- Raptor and Eagle Nest Surveys
- Year 2 Eagle Use
- Grouse Lek Surveys
- Dakota Skipper Surveys

While Aurora has been actively evaluating the proposed Project location following the WEG and ECPG, there do remain some questions that could be better informed through surveys, some fairly costly, or there may be opportunities to collaboratively evaluate potential risks with the information collected to date. This ultimate evaluation could be followed with reasonable post-construction fatality monitoring to confirm low risk. In addition, there may be opportunities to conduct more directed research efforts (potentially off the Project) to answer some of the larger questions being posed by the wildlife community regarding wind development in North Dakota (e.g., impacts to Sprague's pipit, impacts on sharp-tailed grouse). In addition, there may be help fund habitat restoration or conservation programs that would benefit wildlife in general in North Dakota.



Aurora Wind Energy Facility
Williams County, ND

Data Source: World Topographic Map
Coordinate System: NAD 1983 UTM Zone 13N
Date: 11/1/2016
Author: S. Hamilton

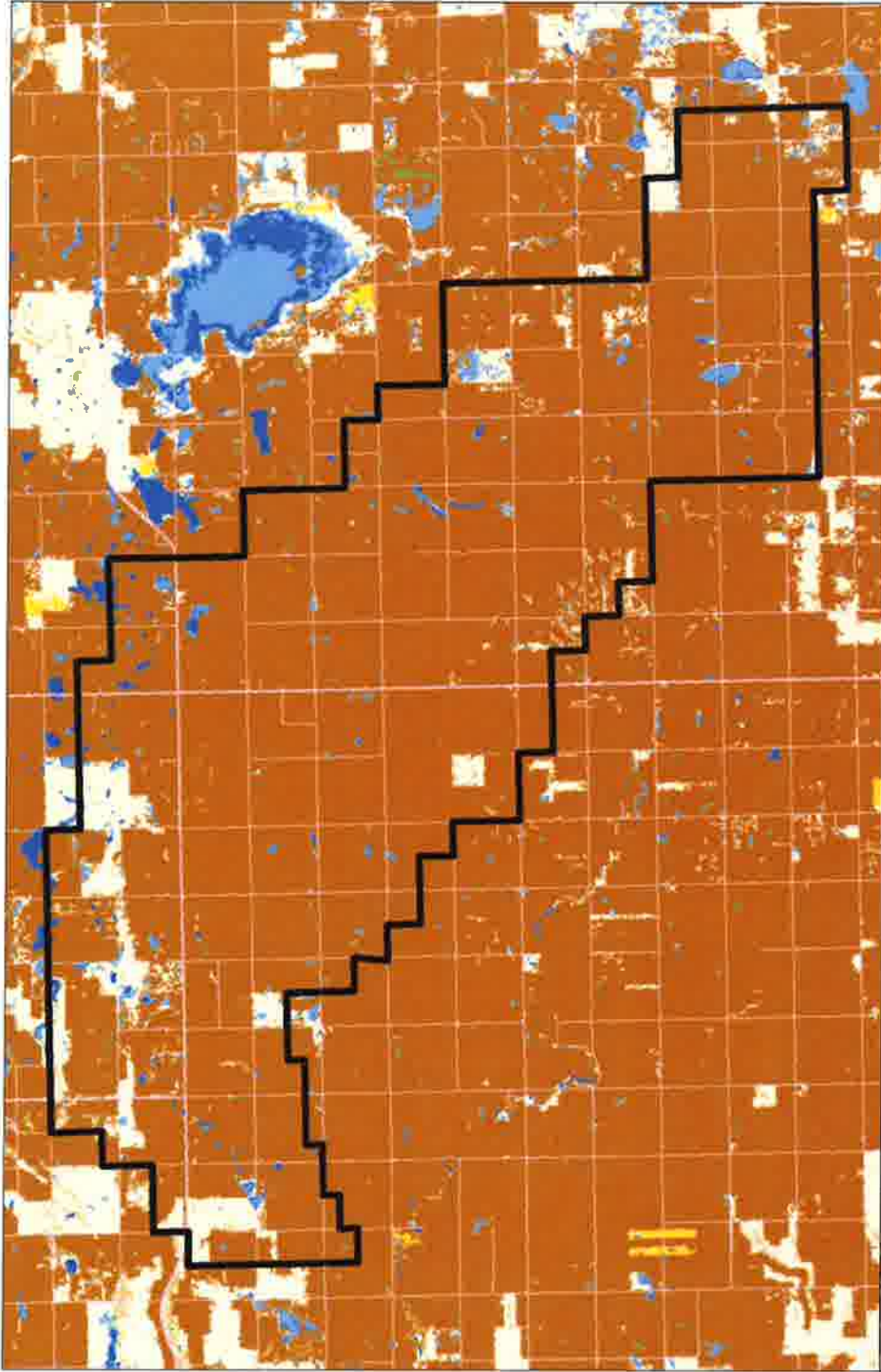
Project Boundary





NORTH DAKOTA





Aurora Wind Energy Project
Williams County, ND
Data Source: USGS NLCD 2011
Coordinate System: NAD 1983 UTM Zone 13N
Date: 11/2/2016
Author: S. Hamilton

N
W E
S

WEST

Project Boundary

Land Use/Land Cover

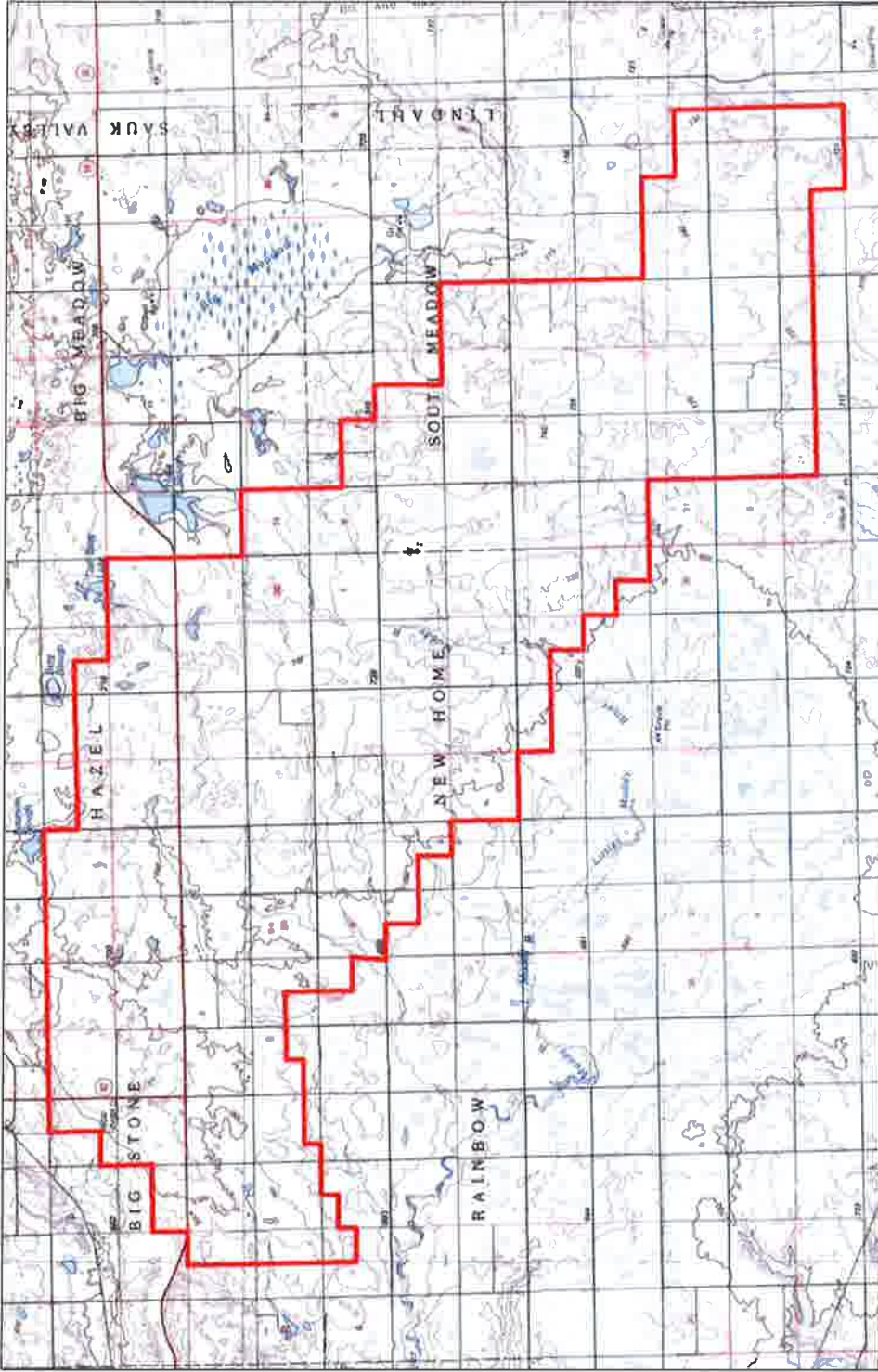
- Open Water
- Perennial Snow/Ice
- Developed, Open Space

- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land
- Deciduous Forest

- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Herbaceous
- Hay/Pasture

- Cultivated Crops
- Woody Wetlands
- Emergent Herb. Wetlands







**NORTH
DAKOTA**

Aurora Wind Energy Project
Williams County, ND

Data Source: USA Topo Maps
Coordinate System: NAD 1983 UTM Zone 13N
Date: 11/1/2016
Author: S. Hamilton





Project Boundary



WEST



December 21, 2017

Addressee Name
Addressee Title
Organization
Address Line 1
City, State Zip Code

Re: Information Request for the Proposed Aurora Wind Project and Associated Transmission Line in Williams and Mountrail Counties, ND

Dear Recipient:

Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) has been contracted by Aurora Wind Project, LLC (Aurora), a subsidiary of Tradewind Energy, Inc. (Tradewind), to assist with obtaining permits from the North Dakota Public Service Commission (NDPSC) for the proposed Aurora Wind Project (Wind Project) in Williams County, North Dakota, and an associated transmission line (Transmission Line Project) in Williams and Mountrail Counties, North Dakota. Two separate NDPSC applications will be prepared: (1) an Application for a Certificate of Site Compatibility for the proposed Wind Project; and (2) a Consolidated Application for a Certificate of Corridor Compatibility and Route Permit for the proposed Transmission Line Project.

The proposed Wind Project would be approximately 300 megawatts (MW); the proposed location of specific infrastructure has not yet been determined. The Wind Project would interconnect to the electrical grid via the existing Basin Electric Power Cooperative Tande 345-kilovolt (kV) Substation (Tande Substation), located in the Northeast Quarter of Section 29, Township 157 North, Range 94 West, Mountrail County, North Dakota. The current potential development area for the Wind Project is shown in the attached Figure 1.

The Wind Project area includes portions of the following tracts:

County	Township	Range	Sections
Williams	157 N	95 W	6, 7
Williams	157 N	96 W	1-18
Williams	157 N	97 W	1, 11-14
Williams	158 N	95 W	31
Williams	158 N	96 W	5-9, 15-22, 27-36
Williams	158 N	97 W	1-16, 22-28, 33-36
Williams	158 N	98 W	1, 4, 5



Addressee Name
Organization
December 21, 2017
Page 2

County	Township	Range	Sections
Williams	159 N	96 W	31
Williams	159 N	97 W	14-36
Williams	159 N	98 W	13-15, 21-29, 32-36

The proposed Transmission Line Project would extend from the Wind Project substation in Williams County to the point of interconnection at the Tande Substation in Mountrail County. The Transmission Line would consist of approximately 25 miles of 345-kV overhead transmission line. The current potential development area and potential route for the Transmission Line Project are shown in the attached Figure 2.

The Transmission Line area includes the following tracts:

County	Township	Range	Sections
Mountrail	157 N	94 W	7, 8, 17-20, 29
Williams	157 N	95 W	7-18
Williams	157 N	96 W	3-16
Williams	158 N	96 W	19, 29-32
Williams	158 N	97 W	1, 2, 11-14, 23-26, 36

In conjunction with preparing the referenced applications, we are seeking input from your agency or entity regarding any sensitive resources, current or planned development, or property interests your agency or entity may have in or around the Project Areas that Aurora should consider as it moves forward with development. In addition, we ask that you provide information regarding any applicable permits that may be required from your office. At this point, the Project is not anticipated to require federal funding or to otherwise have a federal nexus. For your information, we have sent similar query letters to other agencies and entities, including, but not limited to, the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and North Dakota Game and Fish Department.



Addressee Name
Organization
December 21, 2017
Page 3

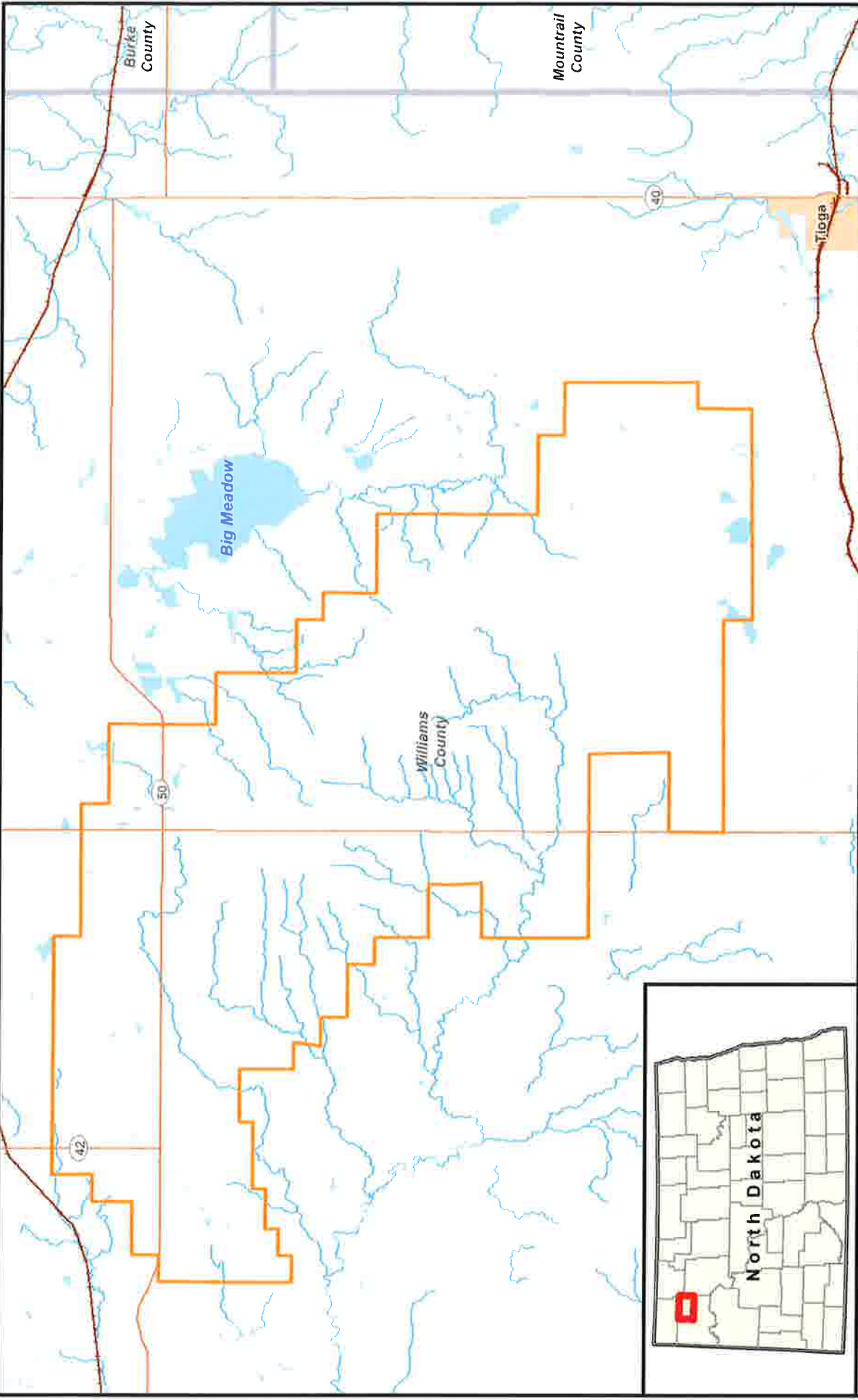
We would appreciate a response by January 21, 2018. Please contact me at (303) 474-2229 or jbelle@burnsmcd.com if you have any questions. Thank you for your assistance.




Sincerely,

Jennifer Bell
Senior Environmental Scientist
Burns & McDonnell
9785 Maroon Circle, Suite 400
Centennial, CO 80112

Attachment

cc: Jennifer Dean, Vice President, Environmental Studies & Permitting, Tradewind



 Proposed Wind Project Area
 Major Road
 County Boundary

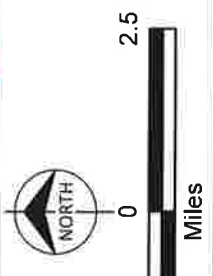


Figure 1
Project Location Map
Aurora Wind Project
Aurora Wind Project, LLC
Williams Co., ND

Jennifer Dean

From: Clayton Derby <cderby@west-inc.com>
Sent: Thursday, August 23, 2018 3:55 PM
To: Jennifer Dean; Katherine Moratz
Subject: Fwd: [EXTERNAL] Fwd: Updated Aurora design

Jenni - see review of easement information from USFWS refuge office.

Clayton Derby
CSO / Wildlife Biologist



Western EcoSystems Technology, Inc.
Environmental & Statistical Consultants
4007 State Street, Suite 109
Bismarck, ND 58503
(701) 250-1756
(701) 426-5072 Cell
(701) 250-1761 Fax
cderby@west-inc.com
www.west-inc.com

CONFIDENTIALITY NOTICE: This message and any accompanying communications are covered by the Electronic Communications Privacy Act, 18 U.S.C. §§ 2510-2521, and contain information that is privileged, confidential or otherwise protected from disclosure. If you are not the intended recipient or an agent responsible for delivering the communication to the intended recipient, you are hereby notified that you have received this communication in error. Dissemination, distribution or copying of this e-mail or the information herein by anyone other than the intended recipient, or an employee or agent responsible for delivering the message to the intended recipient, is prohibited. If you have received this communication in error, please notify us immediately by e-mail and delete the original message. Thank you.

Please consider the environment before printing.

----- Forwarded message -----

From: Kory Richardson <kory_richardson@fws.gov>
Date: Thu, Aug 23, 2018 at 3:47 PM
Subject: Re: [EXTERNAL] Fwd: Updated Aurora design
To: Clayton Derby <cderby@west-inc.com>

Clayton - I have reviewed the proposed wind tower locations, access roads, crane paths, collection lines, intersections, fiber optic sections, lay down yards, substation, transmission lines and structures associated with the proposed Aurora Wind Project. I see no obvious issues or impacts to USFWS wetland and grassland easements; or Waterfowl Production Areas. A tremendous effort was obviously put forth to avoid direct impacts to USFWS property interests. I greatly appreciate your work.

I see two areas on wetland easement that may or may not be actual wetlands (I can't tell for sure from the aerial imagery etc.) that could potentially be impacted by an access road, collection line or crane path. Once staking

of access roads etc. is complete I would like to take a closer look at those "questionable" sites in the field. On area is 159-97-20, S1/2N1/2 (Williams 210X); and 159-97-21, N1/2N1/2 (Williams 142X,1).

Thank you for the opportunity to review the various components of the Aurora Wind Farm. If you have any questions or concerns please don't hesitate to contact me.

Kory

On Tue, Aug 7, 2018 at 8:05 AM Clayton Derby <cderby@west-inc.com> wrote:
Hi Kory

Thanks for the past reviews for the Aurora wind project regarding wetland and grassland easements. The project has developed a more refined layout with all the various constraints - road/house setbacks, avoidance of easements, etc. Can you please take another look at this more refined layout to confirm that it avoids all the basins within the wetland easements as well as all the grassland easements? I know that easements are always a bit in motion with new ones coming in and want to make sure a current review has been completed.

Thank you,

Clayton Derby
CSO / Wildlife Biologist



Western EcoSystems Technology, Inc.
Environmental & Statistical Consultants
[4007 State Street, Suite 109](mailto:cderby@west-inc.com)
[Bismarck, ND 58503](mailto:cderby@west-inc.com)
(701) 250-1756
(701) 426-5072 Cell
(701) 250-1761 Fax
cderby@west-inc.com
www.west-inc.com

CONFIDENTIALITY NOTICE: This message and any accompanying communications are covered by the Electronic Communications Privacy Act, 18 U.S.C. §§ 2510-2521, and contain information that is privileged, confidential or otherwise protected from disclosure. If you are not the intended recipient or an agent responsible for delivering the communication to the intended recipient, you are hereby notified that you have received this communication in error. Dissemination, distribution or copying of this e-mail or the information herein by anyone other than the intended recipient, or an employee or agent responsible for delivering the message to the intended recipient, is prohibited. If you have received this communication in error, please notify us immediately by e-mail and delete the original message. Thank you.

 Please consider the environment before printing.

Kory Richardson
Refuge Manager
Lostwood WMD Complex
8315 Hwy 8
Kenmare, ND 58746

Office: 701-848-2722 x13
Fax: 701-848-2702
Cell: 701-339-1451

Jennifer Dean

From: Clayton Derby <cderby@west-inc.com>
Sent: Monday, August 13, 2018 12:02 PM
To: Kevin Shelley; JOHN SCHUMACHER
Cc: Jennifer Dean; Katherine Moratz
Subject: Re: Aurora Meeting Materials
Attachments: Aurora_Aug 16 2018_Agency Memo Final.pdf

With attachment this time.

Clayton Derby
CSO / Wildlife Biologist



Western EcoSystems Technology, Inc.
Environmental & Statistical Consultants
4007 State Street, Suite 109
Bismarck, ND 58503
(701) 250-1756
(701) 426-5072 Cell
(701) 250-1761 Fax
cderby@west-inc.com
www.west-inc.com

CONFIDENTIALITY NOTICE: This message and any accompanying communications are covered by the Electronic Communications Privacy Act, 18 U.S.C. §§ 2510-2521, and contain information that is privileged, confidential or otherwise protected from disclosure. If you are not the intended recipient or an agent responsible for delivering the communication to the intended recipient, you are hereby notified that you have received this communication in error. Dissemination, distribution or copying of this e-mail or the information herein by anyone other than the intended recipient, or an employee or agent responsible for delivering the message to the intended recipient, is prohibited. If you have received this communication in error, please notify us immediately by e-mail and delete the original message. Thank you.

Please consider the environment before printing.

On Mon, Aug 13, 2018 at 11:21 AM, Clayton Derby <cderby@west-inc.com> wrote:
Hello Kevin and John

Attached please find a summary memo and a few figures to help lead the Aurora Wind Project meeting at 1 pm this Thursday, August 16. Please note that the meeting will be at the NDGFD office.

See you on Thursday.

Clayton Derby
CSO / Wildlife Biologist



Western EcoSystems Technology, Inc.
Environmental & Statistical Consultants
4007 State Street, Suite 109
Bismarck, ND 58503
(701) 250-1756
(701) 426-5072 Cell
(701) 250-1761 Fax
cderby@west-inc.com
www.west-inc.com

CONFIDENTIALITY NOTICE: This message and any accompanying communications are covered by the Electronic Communications Privacy Act, 18 U.S.C. §§ 2510-2521, and contain information that is privileged, confidential or otherwise protected from disclosure. If you are not the intended recipient or an agent responsible for delivering the communication to the intended recipient, you are hereby notified that you have received this communication in error. Dissemination, distribution or copying of this e-mail or the information herein by anyone other than the intended recipient, or an employee or agent responsible for delivering the message to the intended recipient, is prohibited. If you have received this communication in error, please notify us immediately by e-mail and delete the original message. Thank you.

 Please consider the environment before printing.



ENVIRONMENTAL & STATISTICAL CONSULTANTS

4007 State Street, Suite 109, Bismarck, ND 58503
Phone: 701-250-1756 • www.west-inc.com • Fax: 701-250-1761

TO: USFWS and NDGFD
RE: Aurora Wind Energy Project Survey Update
DATE: August 16, 2018

Western EcoSystems Technology, Inc. (WEST) has been assisting Aurora Wind Project, LLC (Aurora), a subsidiary of Tradewind Energy, Inc., in implementing Tier 2 and 3 actions as described in the USFWS Wind Energy Guidelines (WEG) and USFWS Eagle Conservation Planning Guidance (ECPG) for the proposed Aurora Wind Energy Project (Project). The Project as currently planned encompasses approximately 44,000 acres and is located in Williams and Mountrail counties, North Dakota (Figure 1). The purpose of this memo is to facilitate a discussion related to the completed Tier 2 and Tier 3 wildlife surveys and future survey work at the Project.

Tier 2 Efforts:

1. Site Characterization Study
 - Review of biological resources with respect to potential Project development
 - Anticipated low adverse impacts to bird and bat species
2. Whooping Crane Habitat Analysis
 - Assess potential suitability of wetlands within the Project
 - Project had smallest average sized wetlands and the second smallest total wetland acreage and number of basins compared to four adjacent reference areas
 - Project located with the defined whooping crane corridor but all facilities are outside the non-covered lands from WEWAG effort
 - Project falls within unoccupied stopover site use intensity cells
 - No whooping cranes documented in Project area from the USFWS sighting database. Whooping cranes observed during point counts, see Tier 3.
 - Potential to migrate over or through the Project
3. Stage 1 Site Assessment of Eagle Use/Risk
 - Assess if Project is known or likely to be used by eagles
 - Golden eagles uncommon
 - Bald eagles possible since some potential habitat exists (wetland complexes, grasslands) but overall the area lacks nesting habitat
 - NDGFD reports no known bald or golden eagle nests within 10 miles
 - No significant adverse impacts expected

Tier 3 Efforts:

1. Eagle/Avian Use Surveys

- 2 years of surveys
- 1 hour fixed-point surveys at 33 points
- 700 60-minute fixed point surveys
- 4 bald and 2 golden eagles observed during fixed-point surveys
- Anticipated low risk
- Do not plan to seek an eagle permit
- Total of 12 whooping cranes observed flying above rotor swept height with flocks of sandhill cranes on April 24, 2018.

•

2. Eagle/Raptor Nest Surveys

- 2 years of aerial surveys
- Meandering aerial transects of potential suitable habitat
- Eagle nests within 10 miles and non-eagle raptors within 1 mile of boundary
- No eagle nests observed

3. Sharp-tailed Grouse Lek Surveys

- Road-based surveys in 2018
- 3 surveys from early April to early May
- Limited overall grassland blocks within and adjacent to Project (Figure 3) for lekking, brood rearing, etc.
- 52 points along public roads/trails around grasslands >80 acres
- 5 minutes of observations at each point
- 3 leks observed (2 confirmed and 1 potential; Figure 3)
- Turbines adjusted such that no leks within 1 mile of proposed turbine locations

Future Efforts:

1. Construction and Operations

- Operations personnel training for whooping crane identification and shutdown procedures if within 2 miles of turbines.
- Transmission line to be marked with bird diverters
- Post-construction fatality monitoring (Tier 4 surveys)
- Development of Bird and Bat Conservation Strategy (BBCS)

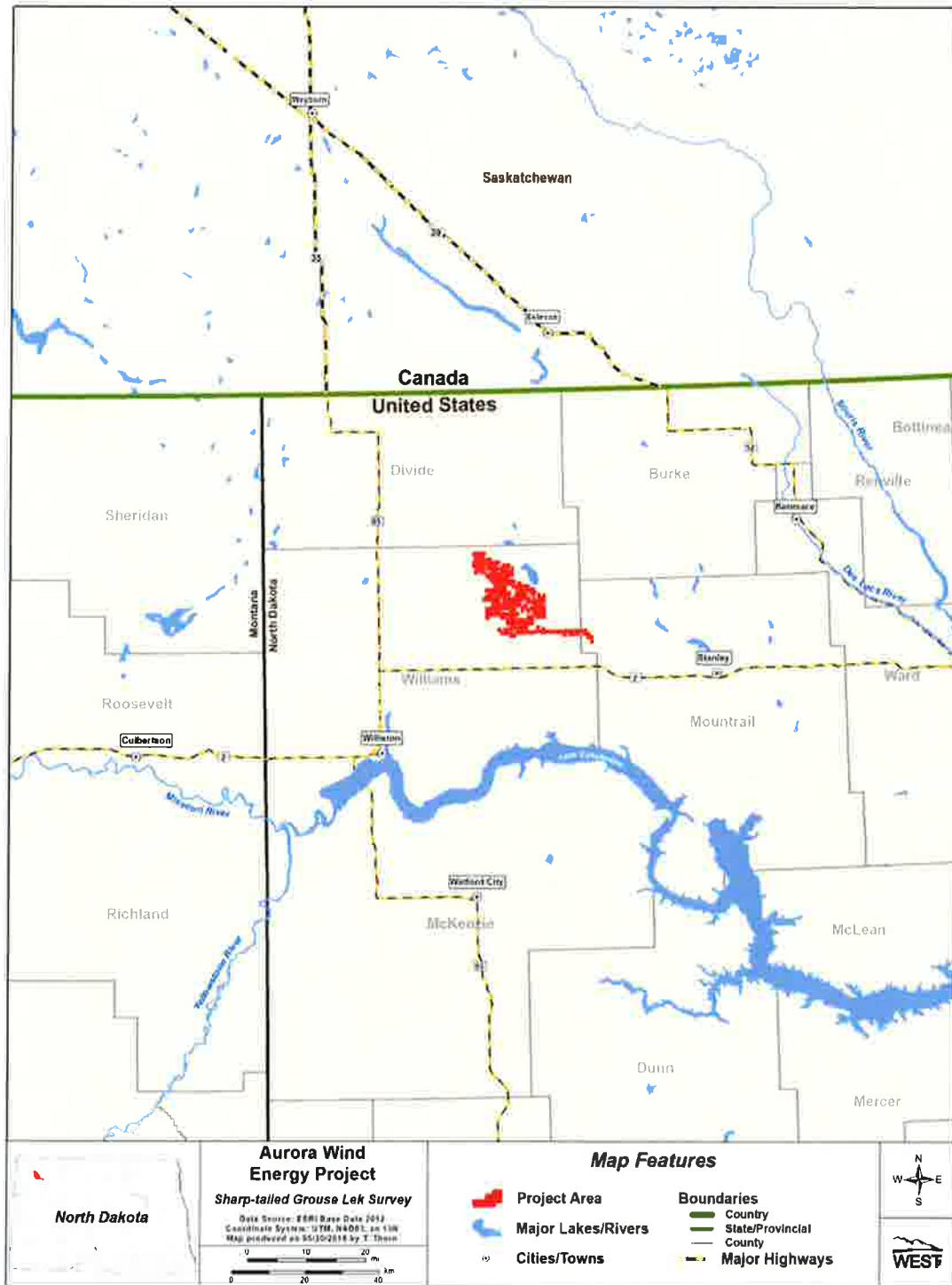


Figure 1. Location and current boundary of the Aurora Wind Energy Project in Williams and Mountrail counties, North Dakota.

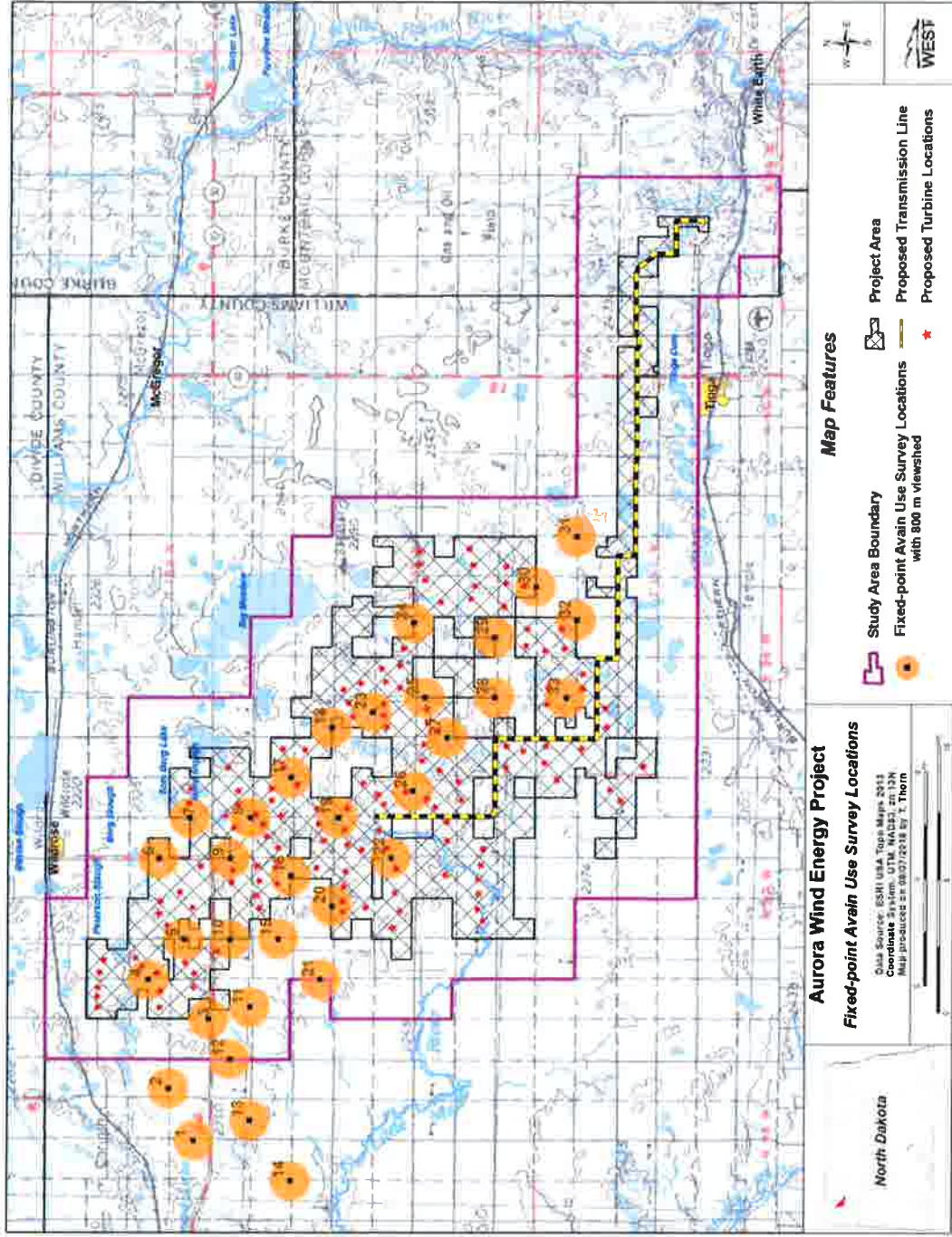


Figure 2. Fixed-point survey locations, proposed turbine locations, and proposed transmission line within the Aurora Wind Energy Project in Williams and Mountrail counties, North Dakota.

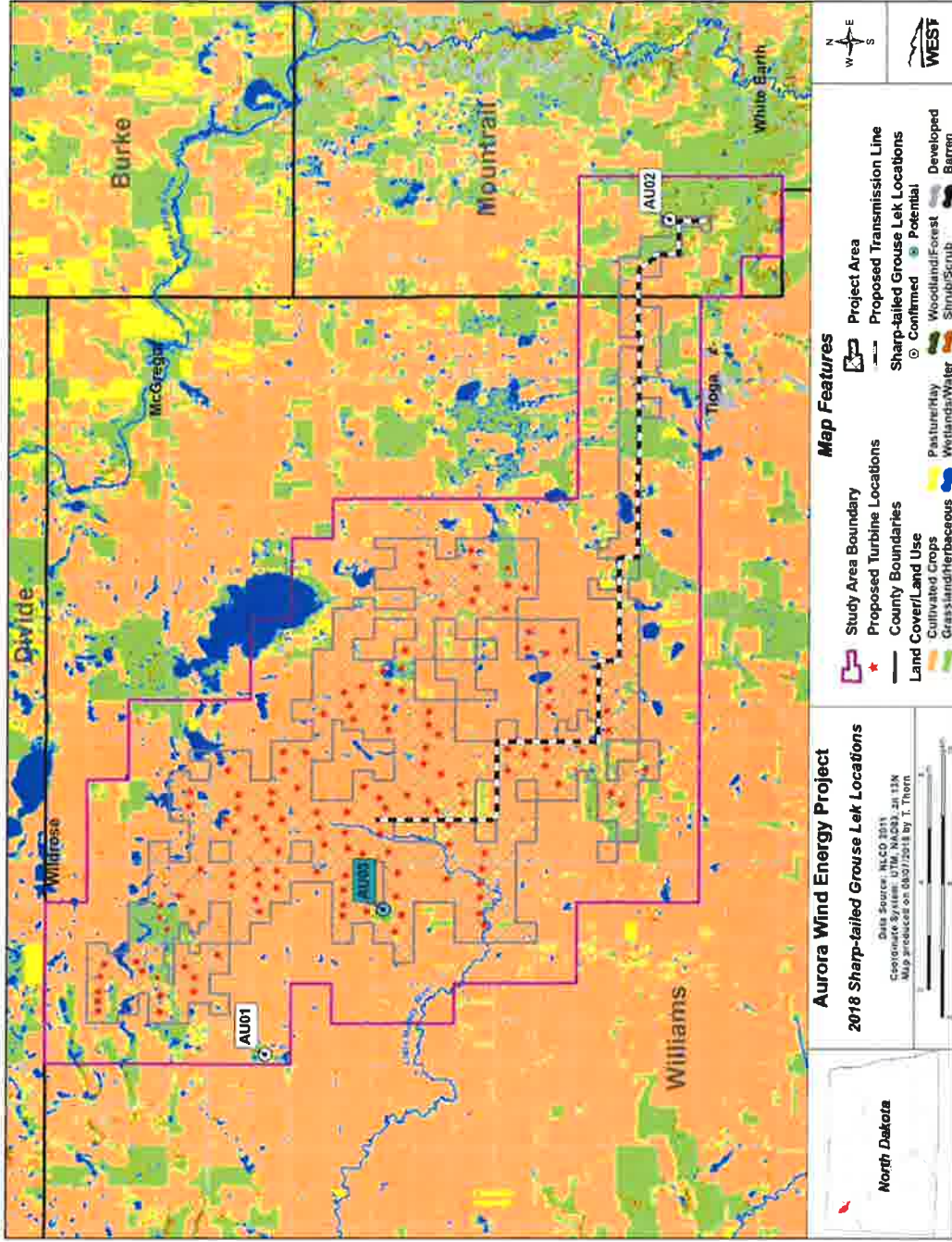


Figure 3. Sharp-tailed grouse lek locations, proposed turbine locations, and proposed transmission line within the Aurora Wind Energy Project, Williams and Mountrail counties, North Dakota.

Jennifer Dean

From: Clayton Derby <cderby@west-inc.com>
Sent: Wednesday, September 12, 2018 3:10 PM
To: Kevin Shelley; Dyke, Steve (NDGF); JOHN SCHUMACHER
Cc: Jennifer Dean; Katherine Moratz
Subject: Aurora Wind Meeting
Attachments: Aurora_USFWS-NDGFD Meeting Notes_081618 Final.pdf; Aurora_Aug 16 2018_Agency Memo Final.pdf

Hello

Attached please find meeting notes and referenced material from the Aurora Wind Project meeting held on August 16, 2018.


Thank you,

Clayton Derby
CSO / Wildlife Biologist



Western EcoSystems Technology, Inc.
Environmental & Statistical Consultants
4007 State Street, Suite 109
Bismarck, ND 58503
(701) 250-1756
(701) 426-5072 Cell
(701) 250-1761 Fax
cderby@west-inc.com
www.west-inc.com

CONFIDENTIALITY NOTICE: This message and any accompanying communications are covered by the Electronic Communications Privacy Act, 18 U.S.C. §§ 2510-2521, and contain information that is privileged, confidential or otherwise protected from disclosure. If you are not the intended recipient or an agent responsible for delivering the communication to the intended recipient, you are hereby notified that you have received this communication in error. Dissemination, distribution or copying of this e-mail or the information herein by anyone other than the intended recipient, or an employee or agent responsible for delivering the message to the intended recipient, is prohibited. If you have received this communication in error, please notify us immediately by e-mail and delete the original message. Thank you.

 Please consider the environment before printing.



ENVIRONMENTAL & STATISTICAL CONSULTANTS

4007 State Street, Suite 109, Bismarck, ND 58503
Phone: 701-250-1756 • www.west-inc.com • Fax: 701-250-1761

MEETING NOTES

SUBJECT: Wildlife survey result update for agencies	
PROJECT: Aurora Wind Project	MEETING LOCATION: NDGFD Office
MEETING DATE: August 16, 2018	NOTES BY: K. Moratz and C. Derby

ATTENDEES

Steve Dyke, NDGFD
John Schumacher, NDGFD
Elisha Mueller, NDGFD
Kevin Shelley, USFWS
Jennifer Dean, Aurora

Dave Iadarola, Aurora
Haileigh Shull, Aurora
Katherine Moratz, WEST
Clayton Derby, USFWS

TOPICS DISCUSSED

Project Overview

Dave Iadarola, Aurora Wind Project, LLC (Aurora), provided a brief review of the Aurora Wind Project (Project) location in northwestern North Dakota. The Project is mainly in eastern Williams County with approximately 3 miles of overhead transmission line that will connect to the existing Tande Substation in Mountrail County. The Project is anticipated to be up to 300MW and has obtained Conditional Use Permits in both Williams and Mountrail counties. The Project permitted up to 131 turbine locations which includes alternates. The 345 kV overhead transmission line is anticipated to be approximately 25 miles in total length. Jenni Dean, Aurora, briefly discussed a tentative timeline of the Public Service Commission (PSC) application for a Certificate of Site Compatibility (CSC) and Route Permit and hearings. At this time, the Project is targeting a mid to late September 2018 application submittal to the PSC for a CSC and anticipates public hearings to occur in January 2019. The Project noted it had received a letter from the North Dakota Game and Fish Department (NDGFD) in May 2018. To date, no correspondence has been received from the United States Fish & Wildlife Service (USFWS).

Tier 2 and Tier 3 Review

Clayton Derby reviewed efforts completed to date at the Project (see attached "Aurora Wind Energy Project Survey Update" memo attached and previously provided electronically to USFWS and NDGFD on August 13, 2018). This synopsis included a brief review of efforts previously discussed at the February 8, 2017, agency meeting, including the Tier 2 site characterization study, Stage 1 site assessment of eagle use and risk, and year one eagle/avian use and raptor nest surveys. Additionally, Clayton provided an update on results of the year two avian use and raptor nest surveys. Clayton also provided results of the sharp-tailed grouse lek

surveys, a survey that was conducted in response to the May 22, 2018, NDGFD letter. In response to the 2018 lek survey, the Project has moved wind turbines to be more than one mile from these lek locations. In addition, wetland and cultural work is ongoing at the Project and is largely complete based in the current design. In an effort to minimize potential risk to existing avian stopover resources, the Project has analyzed the quality of wetlands into three categories: 1) all wetlands greater than 0.5 acres in size, 2) all wetlands considered to be high quality (smaller than 0.5 acres but located in non-agricultural fields and dominated by higher quality, non-invasive wetland species, and 3) all other wetlands. The Project is currently evaluating Project infrastructure as it relates to these categories of wetlands for siting. The Project has also coordinated with USFWS's easement office three times regarding information on wetland and grassland easements in the area as the Project design has evolved.

Clayton then outlined future efforts to be conducted at the Project that will be outlined in the Project's Bird and Bat Conservation Strategy (BBCS). As additional micrositing and design changes are finalized, the Project will continue to coordinate with USFWS's easement office to note protected basins and grasslands in relation to Project infrastructure. In addition to the above siting efforts, the Project and agencies noted the location of the area in regards to the migration corridor of the Whooping crane. The Project committed to marking 100% of the overhead transmission line with bird diverters. Additional monitoring efforts to minimize potential risk to migrating Whooping cranes will be noted in the BBCS. The Project committed to sharing a draft version of the BBCS with both agencies for review and comment.

Discussion

Both USFWS and NDGFD asked questions regarding the efforts completed; however questions were minimal. Questions and discussion included the future development steps for the Project and the PSC process. Both agencies provided positive remarks on the siting of the Project within a fragmented landscape. All parties voiced a willingness to continue to work together as the Project continues to develop. Another agency meeting could potentially occur before the PSC hearing to discuss any additional topics regarding infrastructure placement if all parties are interested.



ENVIRONMENTAL & STATISTICAL CONSULTANTS

4007 State Street, Suite 109, Bismarck, ND 58503
Phone: 701-250-1756 • www.west-inc.com • Fax: 701-250-1761

TO: USFWS and NDGFD
RE: Aurora Wind Energy Project Survey Update
DATE: August 16, 2018

Western EcoSystems Technology, Inc. (WEST) has been assisting Aurora Wind Project, LLC (Aurora), a subsidiary of Tradewind Energy, Inc., in implementing Tier 2 and 3 actions as described in the USFWS Wind Energy Guidelines (WEG) and USFWS Eagle Conservation Planning Guidance (ECPG) for the proposed Aurora Wind Energy Project (Project). The Project as currently planned encompasses approximately 44,000 acres and is located in Williams and Mountrail counties, North Dakota (Figure 1). The purpose of this memo is to facilitate a discussion related to the completed Tier 2 and Tier 3 wildlife surveys and future survey work at the Project.

Tier 2 Efforts:

1. Site Characterization Study
 - Review of biological resources with respect to potential Project development
 - Anticipated low adverse impacts to bird and bat species
2. Whooping Crane Habitat Analysis
 - Assess potential suitability of wetlands within the Project
 - Project had smallest average sized wetlands and the second smallest total wetland acreage and number of basins compared to four adjacent reference areas
 - Project located with the defined whooping crane corridor but all facilities are outside the non-covered lands from WEWAG effort
 - Project falls within unoccupied stopover site use intensity cells
 - No whooping cranes documented in Project area from the USFWS sighting database. Whooping cranes observed during point counts, see Tier 3.
 - Potential to migrate over or through the Project
3. Stage 1 Site Assessment of Eagle Use/Risk
 - Assess if Project is known or likely to be used by eagles
 - Golden eagles uncommon
 - Bald eagles possible since some potential habitat exists (wetland complexes, grasslands) but overall the area lacks nesting habitat
 - NDGFD reports no known bald or golden eagle nests within 10 miles
 - No significant adverse impacts expected

Tier 3 Efforts:

1. Eagle/Avian Use Surveys

- 2 years of surveys
- 1 hour fixed-point surveys at 33 points
- 700 60-minute fixed point surveys
- 4 bald and 2 golden eagles observed during fixed-point surveys
- Anticipated low risk
- Do not plan to seek an eagle permit
- Total of 12 whooping cranes observed flying above rotor swept height with flocks of sandhill cranes on April 24, 2018.

•

2. Eagle/Raptor Nest Surveys

- 2 years of aerial surveys
- Meandering aerial transects of potential suitable habitat
- Eagle nests within 10 miles and non-eagle raptors within 1 mile of boundary
- No eagle nests observed

3. Sharp-tailed Grouse Lek Surveys

- Road-based surveys in 2018
- 3 surveys from early April to early May
- Limited overall grassland blocks within and adjacent to Project (Figure 3) for lekking, brood rearing, etc.
- 52 points along public roads/trails around grasslands >80 acres
- 5 minutes of observations at each point
- 3 leks observed (2 confirmed and 1 potential; Figure 3)
- Turbines adjusted such that no leks within 1 mile of proposed turbine locations

Future Efforts:

1. Construction and Operations

- Operations personnel training for whooping crane identification and shutdown procedures if within 2 miles of turbines.
- Transmission line to be marked with bird diverters
- Post-construction fatality monitoring (Tier 4 surveys)
- Development of Bird and Bat Conservation Strategy (BBCS)

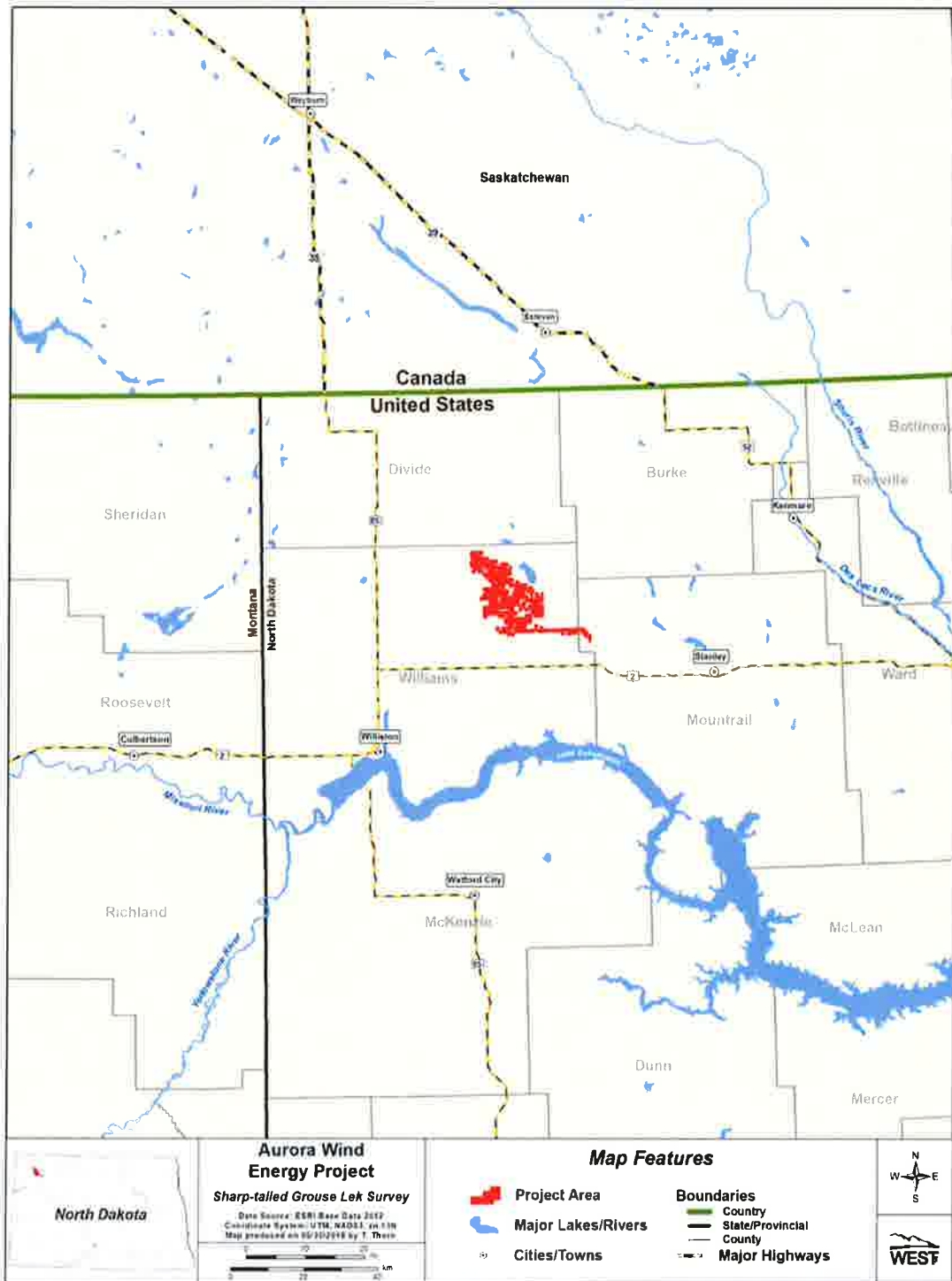


Figure 1. Location and current boundary of the Aurora Wind Energy Project in Williams and Mountrail counties, North Dakota.

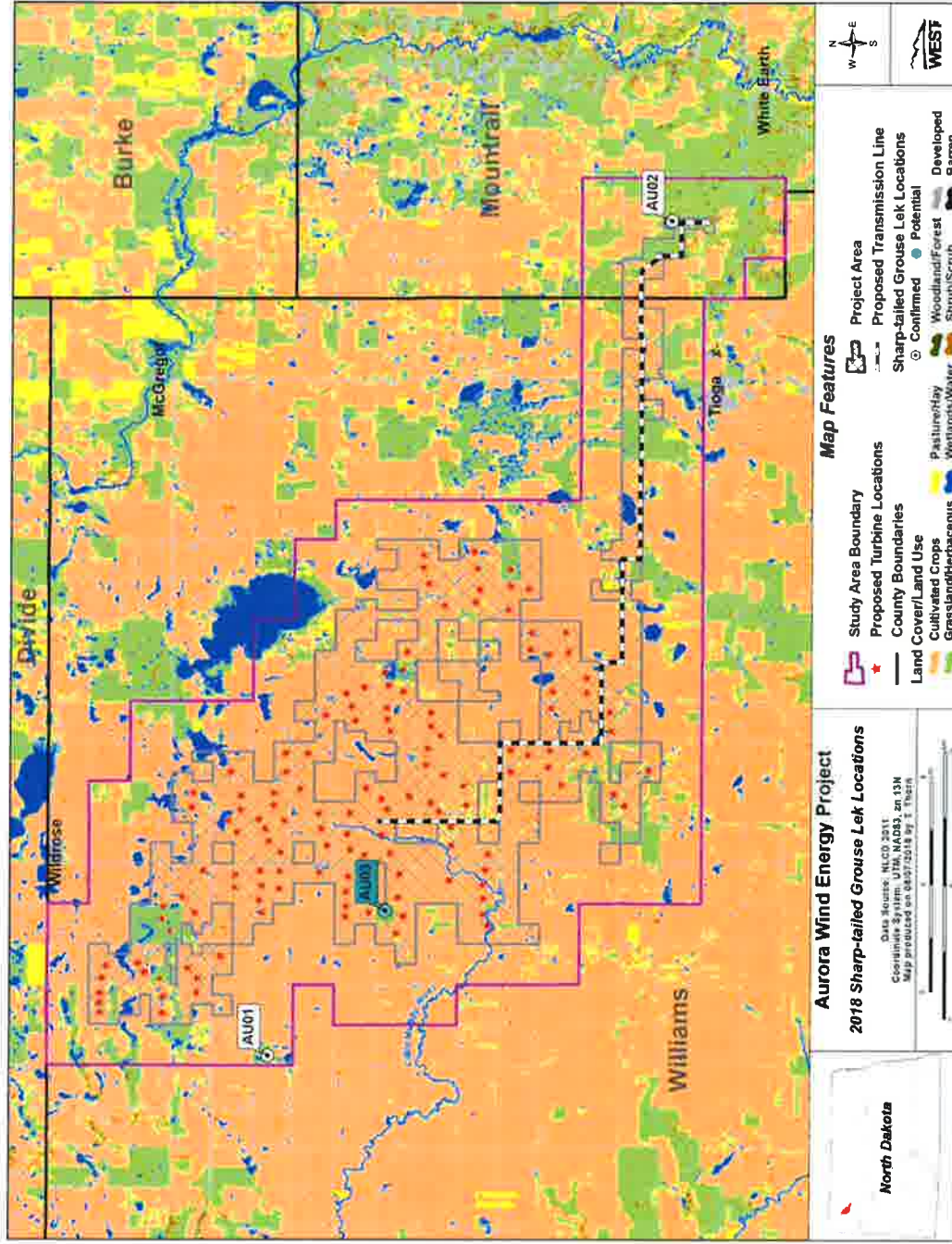


Figure 3. Sharp-tailed grouse lek locations, proposed turbine locations, and proposed transmission line within the Aurora Wind Energy Project, Williams and Mountrail counties, North Dakota.

Jennifer Dean

From: Clayton Derby <cderby@west-inc.com>
Sent: Friday, September 21, 2018 2:54 PM
To: Dyke, Steve (NDGF)
Cc: Kevin Shelley; JOHN SCHUMACHER; Jennifer Dean; Katherine Moratz; Scott_Larson@fws.gov
Subject: Re: Aurora Wind Meeting
Attachments: Aurora_USFWS-NDGFD Meeting Notes_081618 Final Update.pdf; Aurora_A031_299.9MW--GE2.5x108_GE2.3x13_2018-07-26.zip

Hello Group

Steve, thank you for the suggested additions, I have put those ideas into the discussion section. The updated notes are attached for your files.

Also attached is the final layout shapefile for your review. We would be available and open to have further discussions with the group on any letter responses developed to have a "no surprises" understanding before public hearings on the PSC applications (I believe that was the term used by Steve during the meeting?).

Have a great weekend.

Clayton Derby
CSO / Wildlife Biologist



Western EcoSystems Technology, Inc.
Environmental & Statistical Consultants
4007 State Street, Suite 109
Bismarck, ND 58503
(701) 250-1756
(701) 426-5072 Cell
(701) 250-1761 Fax
cderby@west-inc.com
www.west-inc.com

CONFIDENTIALITY NOTICE: This message and any accompanying communications are covered by the Electronic Communications Privacy Act, 18 U.S.C. §§ 2510-2521, and contain information that is privileged, confidential or otherwise protected from disclosure. If you are not the intended recipient or an agent responsible for delivering the communication to the intended recipient, you are hereby notified that you have received this communication in error. Dissemination, distribution or copying of this e-mail or the information herein by anyone other than the intended recipient, or an employee or agent responsible for delivering the message to the intended recipient, is prohibited. If you have received this communication in error, please notify us immediately by e-mail and delete the original message. Thank you.

Please consider the environment before printing.

On Thu, Sep 13, 2018 at 2:40 PM Dyke, Steve R. <sdyke@nd.gov> wrote:

Clayton, thanks for sharing the meeting notes. I suggest for your consideration the following items for inclusion into the meeting notes.

1. Could post construction collision survey \$ be better spent on offsets for habitat restoration efforts.
2. How there is a lack of 'vendors' in the state for habitat creation/restoration. The ND Natural Resource Trust might be positioned to help in that effort.

Additionally, while it may or may not have been discussed at the meeting, our agency strongly encourages the project sponsors provide us with the turbine locations and road alignments well before notice of a PSC public hearing on the project.

Steve

From: Clayton Derby <cderby@west-inc.com>
Sent: Wednesday, September 12, 2018 3:10 PM
To: Kevin Shelley <Kevin_Shelley@fws.gov>; Dyke, Steve R. <sdyke@nd.gov>; Schumacher, John D. <jdschumacher@nd.gov>
Cc: Jennifer Dean <jdean@tradewindenergy.com>; Katherine Moratz <kmoratz@west-inc.com>
Subject: Aurora Wind Meeting

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

Hello

Attached please find meeting notes and referenced material from the Aurora Wind Project meeting held on August 16, 2018.

Thank you,

Clayton Derby

CSO / Wildlife Biologist

Western EcoSystems Technology, Inc.
Environmental & Statistical Consultants

4007 State Street, Suite 109

Bismarck, ND 58503

(701) 250-1756

(701) 426-5072 Cell

(701) 250-1761 Fax
cderby@west-inc.com

www.west-inc.com

CONFIDENTIALITY NOTICE: This message and any accompanying communications are covered by the Electronic Communications Privacy Act, 18 U.S.C. §§ 2510-2521, and contain information that is privileged, confidential or otherwise protected from disclosure. If you are not the intended recipient or an agent responsible for delivering the communication to the intended recipient, you are hereby notified that you have received this communication in error. Dissemination, distribution or copying of this e-mail or the information herein by anyone other than the intended recipient, or an employee or agent responsible for delivering the message to the intended recipient, is prohibited. If you have received this communication in error, please notify us immediately by e-mail and delete the original message. Thank you.

 Please consider the environment before printing.



ENVIRONMENTAL & STATISTICAL CONSULTANTS

4007 State Street, Suite 109, Bismarck, ND 58503
Phone: 701-250-1756 • www.west-inc.com • Fax: 701-250-1761

MEETING NOTES

SUBJECT: Wildlife survey result update for agencies	
PROJECT: Aurora Wind Project	MEETING LOCATION: NDGFD Office
MEETING DATE: August 16, 2018	NOTES BY: K. Moratz and C. Derby

ATTENDEES

Steve Dyke, NDGFD
John Schumacher, NDGFD
Elisha Mueller, NDGFD
Kevin Shelley, USFWS
Jennifer Dean, Aurora

Dave Iadarola, Aurora
Haileigh Shull, Aurora
Katherine Moratz, WEST
Clayton Derby, USFWS

TOPICS DISCUSSED

Project Overview

Dave Iadarola, Aurora Wind Project, LLC (Aurora), provided a brief review of the Aurora Wind Project (Project) location in northwestern North Dakota. The Project is mainly in eastern Williams County with approximately 3 miles of overhead transmission line that will connect to the existing Tande Substation in Mountrail County. The Project is anticipated to be up to 300MW and has obtained Conditional Use Permits in both Williams and Mountrail counties. The Project permitted up to 131 turbine locations which includes alternates. The 345 kV overhead transmission line is anticipated to be approximately 25 miles in total length. Jenni Dean, Aurora, briefly discussed a tentative timeline of the Public Service Commission (PSC) application for a Certificate of Site Compatibility (CSC) and Route Permit and hearings. At this time, the Project is targeting a mid to late September 2018 application submittal to the PSC for a CSC and anticipates public hearings to occur in January 2019. The Project noted it had received a letter from the North Dakota Game and Fish Department (NDGFD) in May 2018. To date, no correspondence has been received from the United States Fish & Wildlife Service (USFWS).

Tier 2 and Tier 3 Review

Clayton Derby reviewed efforts completed to date at the Project (see attached "Aurora Wind Energy Project Survey Update" memo attached and previously provided electronically to USFWS and NDGFD on August 13, 2018). This synopsis included a brief review of efforts previously discussed at the February 8, 2017, agency meeting, including the Tier 2 site characterization study, Stage 1 site assessment of eagle use and risk, and year one eagle/avian use and raptor nest surveys. Additionally, Clayton provided an update on results of the year two avian use and raptor nest surveys. Clayton also provided results of the sharp-tailed grouse lek

surveys, a survey that was conducted in response to the May 22, 2018, NDGFD letter. In response to the 2018 lek survey, the Project has moved wind turbines to be more than one mile from these lek locations. In addition, wetland and cultural work is ongoing at the Project and is largely complete based in the current design. In an effort to minimize potential risk to existing avian stopover resources, the Project has analyzed the quality of wetlands into three categories: 1) all wetlands greater than 0.5 acres in size, 2) all wetlands considered to be high quality (smaller than 0.5 acres but located in non-agricultural fields and dominated by higher quality, non-invasive wetland species, and 3) all other wetlands. The Project is currently evaluating Project infrastructure as it relates to these categories of wetlands for siting. The Project has also coordinated with USFWS's easement office three times regarding information on wetland and grassland easements in the area as the Project design has evolved.

Clayton then outlined future efforts to be conducted at the Project that will be outlined in the Project's Bird and Bat Conservation Strategy (BBCS). As additional micrositing and design changes are finalized, the Project will continue to coordinate with USFWS's easement office to note protected basins and grasslands in relation to Project infrastructure. In addition to the above siting efforts, the Project and agencies noted the location of the area in regards to the migration corridor of the Whooping crane. The Project committed to marking 100% of the overhead transmission line with bird diverters. Additional monitoring efforts to minimize potential risk to migrating Whooping cranes will be noted in the BBCS. The Project committed to sharing a draft version of the BBCS with both agencies for review and comment.

Discussion

Both USFWS and NDGFD asked questions regarding the efforts completed; however questions were minimal. Questions and discussion included the future development steps for the Project and the PSC process. The group also discussed options for providing funds for habitat offsets instead of conducting expensive post-construction fatality monitoring studies, but agreement that currently there is a general lack of "vendors" in the state that can receive these funds and effectively implement habitat restoration or enhancement efforts. The North Dakota Natural Resource Trust may be one vendor that could be investigated to serve this purpose. Both agencies provided positive remarks on the siting of the Project within a fragmented landscape. All parties voiced a willingness to continue to work together as the Project continues to develop. Another agency meeting could potentially occur before the PSC hearing to discuss any additional topics regarding infrastructure placement if all parties are interested.