



ENVIRONMENTAL & STATISTICAL CONSULTANTS

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MEETING NOTES

SUBJECT: Potential grassland and wetland impacts and mitigation	
PROJECT: Aurora Wind Project	MEETING LOCATION: NDGFD Office
MEETING DATE: January 22, 2019	NOTES BY: K. Moratz and C. Derby

ATTENDEES

Steve Dyke, NDGFD
Elisha Mueller, NDGFD
Sandy Johnson, NDGFD
Jennifer Dean, Aurora

Dave Iadarola, Aurora (by phone)
Clayton Derby, WEST
Katherine Moratz, WEST

TOPICS DISCUSSED

Project Overview

Jennifer Dean, Aurora Wind Project, LLC (Aurora) provided a brief update on the Aurora Wind Project (Project). Aurora thanked North Dakota Game and Fish Department (NDGFD) for their letter from January, 2018. Based on survey results and analysis, Aurora continues to work towards minimizing impacts to wildlife. A Public Service Commission (PSC) hearing date has been set for February 25, 2019.

Grasslands

Aurora has taken steps to reduce the number of turbines on unbroken grasslands within the Project boundary. In the turbine array provided to NDGFD in October 2018 there were approximately 9-10 turbines in unbroken grasslands; however, Aurora has since conducted further micro-siting and have reduced that number to approximately 6 turbines on unbroken grasslands owned by North Dakota Department of Trust Lands (NDDTL). NDGFD was encouraged that changes were still possible and was aware of the turbines on NDDTL property. Aurora noted that the turbines on NDDTL property were pushed to the edge while maintaining North Dakota Public Service Commission and Williams County setbacks to reduce potential impacts.

The group discussed general options and concepts for a voluntary offset effort and how as well as where to invest any funds. NDGFD stated that unbroken grassland impacts are a priority in North Dakota and that Aurora should consider using 55% of the impacted unbroken grassland acres as a starting point for calculating the grassland offset package. The North Dakota Natural Resources Trust may be an option as an entity for working with Aurora in the voluntary offset package.

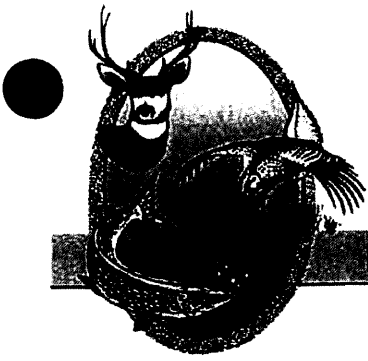
95 PU-18-352 Filed 02/25/2019 Pages: 4
Exhibit 25 - ND Game and Fish Department Correspondence
Aurora Wind Project, LLC

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Aurora Wind Project, LLC

Wetlands

Wetland offsets were discussed in relation to potential wetland impacts and duck displacement. NDGFD indicated that Loesch's GIS tools for waterfowl displacement should be consulted for the best available science. Aurora expressed some concern about the final dollar amount that could potentially be calculated from the current formulas. Again, NDGFD stated there was room for improvement in the current formula and encouraged Aurora to use it as a starting point for offset calculations. NDGFD also indicated that combining grassland and wetland offset final dollar amounts would be acceptable.

Aurora indicated it would not be able to present a company-approved voluntary offset package before the February 25th PSC hearing; however, Aurora hopes to meet with the North Dakota Natural Resources Trust in the next 30 days to explore that avenue as a potential recipient to any designated offset package.



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NORTH DAKOTA GAME AND FISH DEPARTMENT

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GOVERNOR, *Doug Burgum*

DIRECTOR, *Terry Steinwand*

DEPUTY, *Scott A. Peterson*

February 7, 2019

ND Public Service Commission
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

SUBJECT: Aurora Wind Project and Associated Transmission Line in Williams and Mountrail Counties, ND

Mr. Kahl,

The North Dakota Game and Fish Department (Department) has been in discussion with proponents of the Aurora Wind Project since January of 2018. In early consultations, the Department applauded Tradewind Energy, as the majority of the project was within a relatively low sensitive area with respects to native habitats. However, we emphasized the importance of careful placement or micro-siting of turbines, roads, and other associated infrastructure, and asked that any impacts to native unbroken prairie, woodlands, and wetlands be avoided to the extent possible.

To assist the Public Service Commission (Commission) in their review of wind energy development, the Department quantifies all potential impacts to wildlife associated with turbines, roads, and other infrastructure. To do this, we use the best available science on habitat loss, avoidance, and displacement. Habitat loss has been shown to be the number one driver of species declines (Wilcove et al., 1998) and is easily quantified by calculating the total acreage of native habitats that are broken (i.e. native vegetation removed, top soil removed, wetlands filled, etc.). However, calculating avoidance and displacement is not as straightforward. Loesch et al., 2013 assessed the displacement of breeding waterfowl pairs on wetlands associated with wind farms in the Prairie Pothole Region. This study found an average rate of 21% displacement by five waterfowl species within a half mile of turbines. Shaffer and Buhl, 2016, used a Before-After-Control-Impact (BACI) method to evaluate grassland bird displacement associated with turbines. In grasslands, they found avoidance from turbines by seven grassland bird species and a 55% displacement rate by the 5th year post-construction. By using the parameters within these studies, impacts can be estimated for both grassland birds and breeding ducks, indicator species that reflect the use of habitats for a variety of other species. Using this scientific information, we believe there will be adverse environmental impacts that should be offset.

In a January 2019 meeting, Tradewind Energy acknowledged the impacts associated with this project and indicated to the Department they were developing a voluntary offset package to address the impacts to grassland and wetland habitats but would not be able to provide us with specifics prior to the hearing. The Department has been encouraged by Tradewind's commitment to mitigating their impacts and we are hopeful that a successful project can be achieved through our continued collaboration. However, until we are presented with the specific details of this offset package, it is difficult for the Department to provide a full assessment of this project.

Sincerely,



Greg Link

Chief, Conservation and Communications Division

Cc: Jennifer Dean, Tradewind Energy
Scott Larson, U.S. Fish and Wildlife Service