

STATE OF KANSAS

DEPARTMENT OF WILDLIFE, PARKS AND TOURISM
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18 December 2018

Mike Balistreri
% Aeolus Consulting Services
P.O. Box 4521
Albuquerque, NM 87196

Ref: D5.0302
Marion County
Track: 20180435

Dear Mike Balistreri,

We have received the information submitted to our office regarding the construction of the proposed Expedition Wind Energy Project. The project would develop and operate a commercial-scale wind energy generation facility within Marion County, Kansas. Based on a shapefile submitted for the project, the planning area is estimated to encompass 43,715 acres. Comments offered herein provide information regarding biological resources which may be impacted by the development of the site. However, without specific information regarding infrastructure locations and other pertinent details, we are unable to provide a comprehensive environmental review. We request additional information regarding site design as the information becomes available.

Initial desktop review of the proposed site indicates that it contains a mixture of landcover types. The most common landcovers appear to be croplands and native grassland (“rangeland”), streams and riparian corridors. The project area does not contain Designated Critical Habitat for any state-listed species, but nearby Mud Creek has been designated as Critical Habitat for state- and federally-listed Topeka Shiner (*Notropis topeka*) north of the town of Marion. The proposed project area is also within the KDWPT Flint Hills Ecological Focus Area and Neosho River (aquatic) Ecological Focus Area—as defined by the Kansas State Wildlife Action Plan (SWAP). We encourage the project sponsors to review the Eastern Tallgrass Prairie Conservation Region chapter (Chapter 6) of the SWAP to get a full sense of Species of Greatest Conservation Need as well as conservation issues and priorities within the focus areas. The SWAP can be downloaded at this [LINK](#). Relative to energy development projects, the Department is concerned about continued loss and fragmentation of native grasslands. Based on the project area submitted to us, the project will not occur with the Flint Hills Wind Development Moratorium Area, but is directly adjacent to it.

KDWPT advocates for avoidance or minimization of impacts to native prairie, forest, and wetland habitats, especially areas which may provide habitat for state-listed Threatened/Endangered species as well as Species in Need of Conservation and Species of Greatest Conservation Need. A number of verified occurrences of state- or federally-listed species as well as other species considered as Species in Need of Conservation (SINC) and/or Species of Greatest Conservation Need (SGCN) have been recorded within and/or near the proposed project area. Within the project boundary two SGCN, as defined by the State Wildlife Action Plan, have been recorded: Greater Prairie-Chicken (*Tympanuchus cupido*) and Spotted Sucker (*Minytrema melanops*; also considered a SINC by authority of Kansas Nongame and Endangered Species Conservation Act).

Species occurrence records in the last 35 years were queried both for the area within the proposed project boundary as well as at intervals of 1, 3, 5, and 10 miles from the proposed boundary. Between 0-1 miles from the boundary additional occurrences of Spotted Suckers have been recorded as well as records of the

state- and federally-listed Whooping Crane (*Grus americana*) and SINC mussel species: Creeper (*Strophitus undulatus*), Spike (*Elliptio dilatata*), and Wabash Pigtoe (*Fusconaia flava*). One to 3 miles from the boundary, additional Spotted Sucker and Greater Prairie-Chicken records are listed as well as occurrences of the SINC Fawnsfoot mussel (*Truncilla donaciformis*) and federally-protected Bald Eagle (*Haliaeetus leucocephalus*). Three to 5 miles from the boundary, records indicate occurrences of Greater Prairie-Chicken and Fawnsfoot mussels. Finally, between 5 and 10 miles outside of the proposed boundary many occurrences of listed or SINC fish and mussel species are reported in named and unnamed streams as well as more occurrences of Bald Eagles and Henslow's Sparrows (*Ammodramus henslowii*). KDWPT does not conduct extensive surveys for many wildlife species, and much of the occurrence data we use comes from opportunistic observances of those species. As such, we note that a lack of verified observations of sensitive species near/within a project area does not necessarily constitute the absence of those species from the area. We encourage a review of the SGCN lists associated with each Ecological Focus Area mentioned previously to help the project sponsors determine other species which could potentially be impacted by the development. Further, we also recommend consultation with the U.S. Fish and Wildlife Service for guidance on surveying development areas for use by federal trust wildlife species and to determine if there is a need to pursue any federal permits.

As stated above, there are several Greater Prairie-Chicken lek occurrences recorded within five miles of the project area. These occurrences are associated with the more expansive grassland areas in the eastern half of the proposed project area, and extending to the east past the project boundary. KDWPT does not share exact coordinates of lek locations, but the generalized location of these occurrences can be viewed and downloaded from the Kansas Natural Resource Planner website. The data layer containing the lek location information is called the "Terrestrial Species of Concern" layer (which also shows generalized locations of many of the species occurrences mentioned above), under the Terrestrial Habitat category within the webmap. Use this [LINK](#) to view the Kansas Natural Resource Planner, and click "Data Download" in the top right corner of the screen to download a shapefile of these or any other data available on the webmap.

While Greater Prairie-Chickens are not currently listed by the State of Kansas or the U.S. Fish and Wildlife Service, the species' rangewide population has declined considerably—primarily from habitat loss and fragmentation. In an effort to halt the decline, multiple states, including Kansas, have recently joined together to more fully research the status of Greater Prairie-Chickens and work to create a plan which will restore habitat and conserve the population. Relative to wind energy projects, we are generally concerned about further fragmentation of grassland habitat via road, turbine pad, transmission line, and substation construction as well as the potential for other anthropogenic impacts to displace the species. Research regarding potential effects to Greater Prairie-Chickens from wind energy development is mixed, but some studies have indicated that they and other grassland nesting birds may abandon otherwise suitable habitat as a result of infrastructure development and operation in grasslands. If project development moves forward with the same general boundary, we recommend that the project sponsors undertake Greater Prairie-Chicken lek surveys using the WAFWA prairie-chicken survey protocol for industrial-scale development projects to determine if new or otherwise unknown leks occur within the vicinity of the project area. Based on the results of lek surveys, we encourage NextEra to work with this Department to pursue turbine and infrastructure siting alternatives which would position those features outside of the potential range of effects to the species.

KDWPT values a robust, iterative process of consultation prior to projects of this type, and look forward to working with the project sponsors to offer additional advice directed at reducing potential risks to wildlife posed by the proposal. We request an in-person meeting or webinar to discuss any wildlife and habitat studies which the project sponsors may be undertaking prior to development construction. KDWPT encourages the project sponsors to review our Wind Power Position statement for general recommendations regarding wind energy development siting. The position statement can be found by

following this [LINK](#). We also suggest incorporating the following best management practices during the design, construction, and operation of the proposed wind project.

- **Avoid or minimize the disturbance and removal of native upland prairie or riparian hardwood timber and herbaceous vegetation during construction and operation of the wind energy facility and associated infrastructure.**
- **Avoid/Minimize impacts to existing wetlands, springs or areas that pond water (e.g. filling).**
- **Avoid instream and stream bank disturbances including stabilizing the banks with foreign materials (e.g. riprap).**
- **Avoid encroachment or development in floodplains.**
- **If access roads require construction of culverts, we advocate for span or bottomless type designs. If bottomless designs are infeasible, culvert bottoms should be buried at least 12 inches below the streambed. Avoid working in streams during the general fish spawning season (March 1 – Aug. 31).**
- **We recommend using Horizontal Directional Drilling techniques to bore under streambeds when laying collection lines. If a dry stream is open trenched, restore any stream crossings to the original substrate configuration and composition.**
- **Replant temporary grassland disturbances with native grasses and forbs, we recommend using a diverse seed mix and are willing to provide technical advice for seed mix development, or simply recommend using the local seed mix for USDA-NRCS conservation practice 643 - Rare and Declining Habitat.**
- **Implement and maintain standard erosion control Best Management Practices during all aspects of construction by installing sediment barriers (wattles, filter logs, rock check ditches, mulching, or any combination of these) across the entire construction area to prevent sediment and spoil from entering aquatic systems. Barriers should be maintained at high functioning capacity until construction is completed and vegetation is established. For more information on erosion BMPs go to: <http://www.kdheks.gov/stormwater/#construct>.**
- **Consult the Avian Power Line Interaction Committee Marking Guidelines for mitigating avian collisions by marking the incoming/outgoing transmission line(s) appropriately.**
- **Develop and implement a Bird and Bat Conservation Strategy, track all avian and bat mortality, and mitigate accordingly.**
- **To the extent possible, eliminate non-natural light sources, dead animal carcasses, and other features that might serve to attract wildlife to the project area.**

We cannot complete a comprehensive environmental review for this project without additional information. We look forward to meeting with the project sponsors in the future to receive additional information collected as part of the Tier III survey process. We also request spatial data showing proposed locations of turbines, collector lines, access routes, construction laydown areas, construction crane “walk” routes, transmission lines and substations locations, and other required infrastructure as those datasets become available. We note this letter does not serve as our official review of the project,

but we appreciate the opportunity to provide these initial comments. We also encourage consultation with all applicable regulatory authorities—including, but not limited to Kansas Department of Health and Environment, Kansas Department of Agriculture-Division of Water Resources, and the U.S. Fish and Wildlife Service.

Thank you for the opportunity to provide these comments and recommendations. Please let me know if you have any questions about the preceding information.

Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Zac Eddy', with a stylized, flowing script.

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CC: K. Fricke, KDWPT
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