From: Ryan Henning <ryan.henning@apexcleanenergy.com>
Sent: Wednesday, December 14, 2022 2:44 PM
To: Mueller, Elisha K.
Cc: Sean Stocker; Scott Jansen; Chad LeBeau; Johnson, Brian L.; Link, Greg W.; Kolar, Jesse L.
Subject: RE: November 22, 2022 Meeting Summary

Thanks, Elisha. We appreciate NDGF's comments on and acknowledgment of the measures Bowman Wind has taken to minimize potential wildlife impacts. Throughout the development process, Bowman Wind implemented numerous layout revisions to incorporate NGFD's recommendations specific to potential impacts to Species of Conservation Concern. As discussed at the November 22, 2022 meeting, with the assistance of Chad LeBeau and the WEST team, Bowman Wind sited turbines to minimize potential impacts to those species, including sharp-tailed grouse. We acknowledge your recommendations regarding voluntary offsets for potential impacts to habitat of Species of Concern. As set forth in the BBCS, Bowman Wind has voluntarily committed to offset potential habitat impacts using the Shaffer – Loesch model.

Thank you for the additional coordination. Bowman Wind will provide the meeting notes and email correspondence to the NDPSC.

Regards,

-Ryan

RYAN HENNING
Apex Clean Energy, Inc.

From: Mueller, Elisha K. <ekmueller@nd.gov>
Sent: Tuesday, December 13, 2022 9:50 AM
To: Ryan Henning <ryan.henning@apexcleanenergy.com>
Cc: Sean Stocker <sean.stocker@apexcleanenergy.com>; Scott Jansen <scott.jansen@apexcleanenergy.com>; Chad LeBeau <cwlebeau@west-inc.com>; Johnson, Brian L. <brljohnson@nd.gov>; Link, Greg W. <glink@nd.gov>; Kolar, Jesse L. <jlkolar@nd.gov>
Subject: RE: November 22, 2022 Meeting Summary

Hi Ryan,

Thank you for meeting with us Nov. 22nd to discuss and address the Game and Fish Department (Department) recommendations we provided in our earlier project assessment letter dated July 22, 2021. We appreciate you providing the summary of our discussion and proposed resolutions.

The Department believes the project modifications to which APEX has committed are important changes for minimizing impacts to sensitive wildlife species. We are encouraged and commend you for the removal of turbines 71 and 73 to protect an active sage grouse lek only approximately 2 miles away. We also agree that construction activities should be avoided during the proposed window to protect sharp-tailed grouse. However, we would like to reiterate Recommendation 2 from our original letter, which was further stressed at the meeting. Five turbines placed within unbroken grasslands could significantly impact grassland-associated Species of Conservation Concern in those areas, specifically sharp-tailed grouse. It is not only the footprint of a turbine that might impact grouse, but, additionally, a much wider area of potential displacement, as grouse have been shown to avoid turbines up to 2 miles. For our assessment, indicating the habitat lost to grouse must go beyond just the footprint of the turbine; it needs to include all

reduction of wildlife value of the area, including avoidance. Also, voluntarily offsetting these residual impacts using APEX's "acquisition and protection" offset approach, as identified in the BBCS, may be a beneficial conservation action, in general, but it does not address the specific deficit to the grassland resource accrued in the project area and the wildlife inhabiting this area. The Department continues to recommend that voluntary offsets pursued should focus on recreating native grassland habitat in the project area with willing private landowners to offset habitat lost (**285 ha/702 acres per Bowman's impact analysis – see below**), rather than preserving existing habitat in other areas of the state.

Final Layout 059 Grassland Mapping Updated Based on WEST Field Assessment Used for the Avian-impact Offset Method to Estimate Offsets for Displaced Breeding Grassland Birds *{RESULTS IN THIS TABLE INCLUDE 85 TOTAL PRIMARY AND SPARE TURBINE LOCATIONS – >THE FINAL PROJECT LAYOUT WILL TOTAL 74, 2.82 MW TURBINE LOCATIONS}

Parameter	*Metric*	*Units*	*Source*
Impact Distance	*300*	*m*	*Shaffer and Buhl (2016)*
Impact Area	*537*	*ha*	*Derived from WEST Grassland Assessment*
Pre-Impact Density	*1.9*	*pairs/ha*	*Shaffer and Buhl (2016)*
Percent Displacement	*53*	*percent*	*Shaffer et al. (2019)*
Offset Density	*1.9*	*pairs/ha*	*Equal Value Habitat*
Number Pairs in Impact Site	*1020*	*pairs*	*--*
Number Pairs Displaced	*540*	*pairs*	*--*
Offset Area	*284*	*ha*	*--*

Note: This table was replicated from Shaffer et al (2019) Appendix S1, Table S3, Example 2 calculation sheet

Please feel free to reach out if you have any other questions or concerns.

Elisha