Bowman Wind, LLC
Bowman Wind Project
PU-21-121

Resource	Avoidance, Minimization, and Mitigation Commitments
Land Classifications	
Grasslands	• In 2018, Bowman Wind expanded the potential development area to include more previously disturbed acreage and focused leasing efforts on more actively managed agricultural lands (cropland and hay/pasture). • In 2020, shifted Project to the north, thereby avoiding large, intact unbroken grasslands in the southern extent of the original proposed Project development areas. • Conducted a multifaceted Grassland Assessment including field survey around proposed turbine locations to identify suitable breeding habitat within unbroken grasslands and inform voluntary offset calculation model for potential displacement of grassland breeding birds. • Used the Grassland Assessment data to adjust turbine layout and minimize siting turbines in suitable breeding habitat within unbroken grassland; 81 of 86 turbines are sited in broken grassland or other previously disturbed land uses. • Incorporated landowner input to site access roads along section lines and within agricultural fields to minimize further fragmentation.
Wetlands	• Conducted desktop and field delineations. • Project Area contains limited wetlands and waterbodies, mostly associated with small creeks and intermittent streams. • Project facilities will avoid permanent impacts to delineated wetlands. • Temporary impacts to wetlands will be minimized through matting, boring, and collocation of facilities.
Wildlife	
Threatened & Endangered Species	• Project is located outside of the 95 percent migration corridor of the whooping crane. U.S. Fish and Wildlife Service ("USFWS") did not require species-specific studies to further evaluate risk from Project construction on the whooping crane. • Although the occurrence of whooping cranes in the Project Area is unlikely, if whooping cranes use sites within or near the Project during migration, Bowman Wind will avoid impacts to whooping crane by implementing the general conservation measures for birds presented in the Project's Bird and Bat Conservation Strategy ("BBCS"). If a whooping crane is sighted in the

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	Project Area during construction, Bowman Wind will stop construction within one mile until the whooping crane has left the area.
Eagles	• Conducted two years of baseline general avian use surveys (2017-2018; 2018-2019) which included fixed-point avian use surveys from August 2017 to July 2019. Conducted raptor and eagle nest aerial surveys in March 2018 and completed additional follow-up ground monitoring at specific nest locations in June and October 2018. Additional raptor nest survey work was completed in 2019. Based on the eagle nest surveys, there are no bald or golden eagle nests in the Project Area. • Active prairie dog colonies were used to microsite turbines. • Preparing an Eagle Conservation Plan to address potential operational risks to bald and golden eagles. • Bowman Wind has initiated consultation with the USFWS Region 6 Migratory Bird Division to voluntarily pursue an eagle incidental take permit for the Project.
Avian Species	• Adherence to the USFWS WEG and ECPG by close coordination with USFWS and North Dakota Game and Fish ("NDGF") on survey type/methodology, data analysis, and avoidance and minimization measures. • Conducted pre-construction avian surveys in 2017-2019, including baseline general avian use surveys, fixed-point avian use surveys, aerial raptor/eagle nest surveys, and ground-based grouse lek monitoring surveys. • Minimized siting turbines in suitable breeding habitat within unbroken grassland; 81 of 85 turbines are sited in broken grassland or other previously disturbed habitats to minimize impacts to grouse. Additionally, the closest turbine to a sharp-tailed grouse lek is 0.6 miles; this lek was unoccupied in both years of lek surveys. Bowman Wind has buffered the active greater sage-grouse lek 0.8-mile west of the Project Area by two miles to minimize impacts to this species. • Layout designed to minimize tree clearing and potential impacts to raptor nests. • Turbines sited at least one-quarter mile from identified active, occupied raptor nests. • If during construction activities a previously unknown leks or raptor nest is discovered, the USFWS and NDGF will be informed.

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	• Species composition, seasonal abundance, and spatial use documented during avian surveys are considered typical for birds in this region. The majority of species observed are common and abundant within the region. Project not likely to cause substantial impacts to small or large bird populations, including diurnal raptors and species of concern. • Collection lines will be buried, and access roads have been sited to minimize grassland fragmentation. • Turbines sited on cropland to the extent practicable to minimize impacts on grasslands, wetlands, and wooded habitats. • A draft BBCS has been prepared in coordination with USFWS outlining the avoidance, minimization, and mitigation measures Bowman Wind has implemented or committed to implementing for the Project. • Committed in draft BBCS to voluntary offsets for potential grassland breeding bird displacement; offsets will be used by Non-Governmental Organization to acquire easements to protect unbroken grasslands during life of Project. • Will conduct post-construction fatality monitoring surveys, which will be developed in coordination with the USFWS and NDGF.
Bats	• Conducted pre-construction acoustic bat monitoring and Northern Long-eared Bat ("NLEB") Desktop Habitat Assessment within the Project Area. • Project designed to minimize tree clearing. • No potentially suitable summer NLEB habitat exists within the Project Area. • Based on the bat activity data and NLEB Desktop Habitat Assessment, the NLEB may potentially use the Project Area for foraging or during migration; potential hibernacula and roosting sites are not known to occur in the Project Area or vicinity.
Cultural Resources	
Archaeological Resources	• Conducted Class I Literature Review and Class III Intensive Cultural Resources Pedestrian Inventory. • Sited the Project facilities to avoid the cultural resource sites identified during surveys and will adhere to the State Historical Society of North Dakota's ("SHSND")

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	recommended mitigation measures to avoid impacts to those sites during Project construction. • Prepared an Unanticipated Discoveries Plan. • Submitted initial report to SHSND in March 2021; revised report based on SHSND recommendations and submitted to SHSND in June 2021. SHSND concurrence not yet been received but is anticipated based on consultations with SHSND. • As a result of recent layout adjustments, additional Class III field survey work in a few areas was needed; the additional field survey work started on July 29 and is anticipated to be completed in early August. Results of that survey work will be provided at the public hearing. QCRS consulted with the SHSND regarding the additional survey work and an addendum report will be submitted to SHSND for review. • Tribal cultural specialists ("TCS") representing the Cheyenne River Sioux Tribe, Oglala Sioux Tribe, Three Affiliated Tribes, Turtle Mountain Band of Chippewa, and Rocky Boy Chippewa-Cree Tribe were present during the cultural resource pedestrian surveys. The TCS representatives assisted with identifying potential Traditional Cultural Properties.
Architectural Resources	• Conducted Class II Architectural History Survey that was of SHSND-identified structures within two-mile radius of Project Area. • Class II survey resulted in identification of two historic architectural sites within two miles of the Project layout, both of which are recommended as potentially eligible for listing in the National Register of Historic Places ("NRHP") • No direct effects to two historic architectural resources. Minor impacts to the setting of these resources may occur and, to mitigate these impacts, Bowman Wind will comply with SHSND mitigation recommendations. • Submitted initial report to SHSND in March 2021; revised report based on SHSND recommendations and submitted to SHSND in June 2021. SHSND concurrence not yet been received but is anticipated based on consultations with SHSND.