Badger Wind, LLC
Badger Wind Project
PU-24-087

Resource	Avoidance, Minimization, and Mitigation Commitments
Land Classifications	
Grasslands	• Throughout 2020-2022, in coordination with U.S. Fish and Wildlife Service ("USFWS") and North Dakota Game and Fish Department ("NDGF"), Badger Wind revised the size and location of the Project Area and moved Project infrastructure out of unbroken grassland in the northeast corner of the Project Area. • In addition to the grassland habitat assessments conducted for the 2022 Project, Badger Wind conducted additional desktop and field verification surveys for grasslands in August of 2023 to cover changes/updates to the Project, which include the expanded Project boundary. Badger Wind prepared an updated Grassland Habitat Assessment, which presents the combined results of grassland assessments conducted for the Project during 2021 and during 2023; Badger Wind used these results to evaluate and inform Project infrastructure siting decisions to avoid and/or minimize potential impacts to unbroken grassland habitat. • In the current Project layout, no turbines are sited within unbroken grasslands. Additionally, the majority of turbine locations are in areas that are not suitable habitat for grassland species, and all turbines in suitable habitat are sited in already fragmented areas, which helps minimize impacts to grassland species. • Sited access roads along field edges and within other previously disturbed areas to the extent practicable to minimize further fragmentation.
Surface Waters and Floodplains	• Project facilities have been sited to avoid or minimize impacts to surface waters and floodplain resources.
Wetlands and Waterbodies	• Conducted desktop and field wetland delineations and field wetland mapping. • Temporary impacts to wetlands will be minimized through matting, boring, and collocation of facilities. • Badger Wind has avoided permanent impacts to wetlands. • If unavoidable temporary impacts to USACE jurisdictional waters occur, these activities will be self-certified under the Nationwide Permit Program in accordance with Section 404 of the Clean Water Act.

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Wildlife	
Threatened & Endangered Species	• Project Area lies at the edge of the portion of the whooping crane migration corridor in which 75 percent of whooping crane sightings have occurred. • Previously conducted whooping crane stopover habitat assessment using data sources recommended by USFWS and NDGF. The assessment indicated potential suitable stopover habitat for whooping cranes is present within the Project Area; however, this habitat is of relatively lower quality and quantity compared to reference areas within the regional landscape. Based on previous surveys results, whooping cranes may occur in the Project Area during the migration season; however, the potential for impacts to whooping cranes is low. • Although the occurrence of whooping cranes in the Project Area is unlikely, if a whooping crane is sighted within the Project Area during construction, Badger Wind will stop construction within one mile of the sighting until the whooping crane has left the area. • Badger Wind is coordinating with USFWS on additional measures to avoid or minimize potential impacts to whooping cranes.
Eagles	• Previously conducted two years of baseline general avian use surveys (2019-2020; 2020-2021) which included fixed-point avian use surveys during the spring (March through May) and fall (August through November) seasons from May 2019 to April 2021. Badger Wind also previously conducted aerial and ground-based eagle and raptor nest surveys (2019; 2020) and completed additional follow-up ground monitoring at specific nest locations in 2021. • Conducting an additional year of eagle/large bird use surveys (2023-2024). • Conducted additional eagle and raptor nest surveys in 2024 and determined that the one previously identified alternate nest within the Project Area is no longer present. Project turbines are sited at least two miles from the one previously identified active bald eagle nest. • There are no golden eagle nests within the Project Area or within ten miles of the Project Area. • There are no known, active bald eagle nests located within two miles of proposed wind turbine locations. • Badger Wind will continue to coordinate with USFWS regarding recommendations and any potential adaptive management measures, as needed.

Avian Species	• Badger Wind continued to adhere to the USFWS Wind Energy Guidelines ("WEG") through close coordination with USFWS and NDGF on survey type/methodology, data analysis, and avoidance and minimization measures. • Previously conducted two years of pre-construction avian surveys, including baseline general avian use surveys, fixed-point avian use surveys, aerial and ground-based raptor/eagle nest surveys, and aerial and ground-based sharp-tailed grouse lek monitoring surveys. • Conducted additional eagle and raptor nest surveys and is conducting an additional year of eagle/large bird use surveys (2023-2024). • Project layout continues to be designed to minimize tree clearing and potential impacts to raptor nests. • Badger Wind designed the Project to continue to adhere to the Plains Sharp-Tailed Grouse Conservation Strategy to minimize potential impacts to sharp-tailed grouse during Project construction and operations. As was committed to in the Plains Sharp-Tailed Grouse Conservation Strategy, in the current Project layout, no turbines are located within unbroken grasslands, the majority of turbines are sited in areas that are not suitable for sharp-tailed grouse habitat, and all turbines located in identified suitable habitat are located in previously fragmented areas, which helps minimize impacts to the local sharp-tailed grouse population. Badger Wind has coordinated with USFWS and NDGF regarding the current layout and its continued compliance with the Plains Sharp-Tailed Grouse Conservation Strategy. • Turbines sited on cropland to the extent practicable to minimize impacts on grasslands, wetlands, and wooded habitats. • Collection lines will be buried, and access roads have been sited to minimize grassland fragmentation. • If a previously unknown lek or raptor nest is discovered, USFWS and NDGF will be informed. • Bird and Bat Conservation Strategy ("BBCS") has been updated; outlines the avoidance, minimization, and mitigation measures Badger Wind has implemented or committed to implementing for the Project. Badger Wind will continue coordinating with USFWS and NDGF regarding the BBCS. • Badger Wind executed a Memorandum of Understanding with the North Dakota Department of Agriculture outlining Badger Wind's voluntary mitigation offset commitments.

Resource	Avoidance, Minimization, and Mitigation Commitments
	• Will conduct post-construction fatality monitoring for at least a one-year period, which will be developed in coordination with USFWS and NDGF.
Bat Species	• Previously conducted pre-construction acoustic bat monitoring and a Northern Long-eared Bat ("NLEB") Desktop Habitat Assessment, which found that potential suitable habitat for NLEB is limited within the Project Area. The results of the acoustic monitoring and habitat assessment indicate the potential for NLEB to occur in the 2022 Project Area is low. Coordinated with USFWS and NDGF on whether additional data collection regarding bat species is needed for the current Project Area; USFWS and NDGF did not indicate that additional data collection for bat species was necessary for the current Project Area. • Project is designed to minimize tree clearing. • Updated BBCS documents the measures to be implemented during siting, construction, and operations to avoid and/or minimize potential impacts to bats. • Will conduct post-construction fatality monitoring for at least a one-year period, which will be developed in coordination with USFWS and NDGF.
Cultural Resources	
Archaeological Resources	• The Project continues to avoid the seven unevaluated archaeological sites and two archaeological site leads previously identified in 2022. • Conducted a supplemental Class I literature review, Class III archaeological survey, and Class III archaeological survey. • During the supplemental Class III survey, one new archaeological site (32LO174) and one new prehistoric isolated find (32LOX76) were identified. The archaeological site (32LO174) has not been fully evaluated for listing in the National Register of Historic Places ("NRHP"), so avoidance or full evaluation is recommended. The prehistoric isolated find (32LOX76) is recommended not eligible for listing in the NRHP. The Class III report was submitted to SHSND; SHSND provided a concurrence letter noting that archaeological site 32LO174 should be avoided or fully evaluated. Badger Wind has designed the Project to avoid archaeological site 32LO174. • During the supplemental Class III survey of previously unsurveyed areas, no new or previously recorded cultural resources were identified.

Resource	Avoidance, Minimization, and Mitigation Commitments
	• Project infrastructure avoids NRHP eligible, potentially eligible, or unevaluated cultural resources. • Prepared an Unanticipated Discoveries Plan.
Architectural Resources	• Project continues to avoid the five historic architectural resources and one contributing resource identified in 2022 that are recommended as potentially eligible for listing in the NRHP. • Conducted a supplemental Class I literature review and Class II architectural reconnaissance inventory. • Supplemental Class I identified one previously documented aboveground historic resource (32MT00038) that was either not fully evaluated for listing in the NRHP or was previously determined not eligible for inclusion. Supplemental Class II survey identified nine aboveground historic resources that are recommended not eligible for listing in the NRHP and determined that previously documented resource 32MT00038 (identified in the Class I review) was no longer present. The Project is not anticipated to have an adverse direct or indirect impact on these resources. • Project infrastructure has been sited to avoid NRHP eligible, potentially eligible, or unevaluated historic architectural resources. • Supplemental Class I and II report was submitted to SHSND, and concurrence has been received.
Sound/Shadow Flicker	
Sound	• Conducted an updated sound modeling analysis. Nine receptors were modeled with sound levels above 45 dBA. Badger Wind has obtained written waivers for seven receptors and is in the process of securing a waiver from the owner of the remaining two receptors. • The cause of the sound level exceedances at the two receptors are the transformers at the Project substation. If Badger Wind is unable to obtain a waiver, Badger Wind will construct sound barriers on the sides of the two substation transformers. The sound barriers will minimize sound emissions from the transformers and ensure the Project complies with the PSC's sound requirement.
Shadow Flicker	• Conducted an updated shadow flicker modeling analysis. All receptors (participating and non-participating occupied residences) were modeled at less than 30 hours of shadow flicker per year.