



Minnesota Department of Natural Resources
Division of Ecological & Water Resources
500 Lafayette Road, Box 25
St. Paul, MN 55155-4025

July 1, 2024

Angela Durand
Merjent, Inc.

RE: Natural Heritage Review of the proposed Plum Creek Wind Farm,
Cottonwood, Murray, and Redwood County

Dear Angela Durand,

For all correspondence regarding the Natural Heritage Review of this project please include the project ID **MCE-2024-00281** in the email subject line.

As requested, the [Minnesota Natural Heritage Information System](#) has been reviewed to determine if the proposed project has the potential to impact any rare species or other significant natural features. Based on the project details provided with the request, the following rare features may be impacted by the proposed project:

Ecologically Significant Areas

- The Minnesota Biological Survey (MBS) has identified multiple Sites of Biodiversity Significance and DNR Native Plant Communities (NPCs) within the project boundary (see the Conservation Project Report available in Minnesota Conservation Explorer for a list). There are 19 *Moderate* ranked Sites of Biodiversity Significance. Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Sites ranked as *Moderate* contain occurrences of rare species and/or moderately disturbed native plant communities, and/or landscapes that have a strong potential for recovery. There are also 15 areas ranked as *Below* within the project boundary that the MBS considered for Sites of Biodiversity Significance but were determined to be below the minimum biodiversity threshold for statewide significance. These areas, however, have conservation value at the local level as habitat for native plants and animals, corridors for animal movements, buffers surrounding higher quality natural areas, or as areas with high potential for restoration of native habitat.

All of the NPCs within the project boundary are considered rare in Minnesota (i.e., they have a Conservation Status Rank of S1 through S3). Many of these NPCs are native prairie. More than 99% of the prairie that was present in the state before settlement has been destroyed, and more than one-third of Minnesota's endangered, threatened, and special concern species are now dependent on the remaining small fragments of Minnesota's prairie ecosystem. Therefore, we feel that all prairie remnants merit protection. We encourage you to consider project alternatives that would avoid or minimize disturbance to these ecologically significant areas. The proposed project includes land identified as *Prairie Corridor*

and *Corridor Complex* in the [Minnesota Prairie Conservation Plan](#), a twenty-five year strategy for accelerating prairie conservation in the state. To meet the Plan's goals, areas within *Prairie Corridor Areas* will need to include restoration. As such, any efforts toward [prairie or grassland restoration](#) after project construction are encouraged.

Given the ecological significance of these areas, the DNR recommends that MBS Sites ranked Moderate be considered avoidance areas within the permitting boundary. As mentioned above, less than one percent of prairie habitat remains in Minnesota. Many grassland bird species that depend on these remaining prairies are declining in number nationwide. Any cumulative impact assessment should address the issue of avian mortality. Indirect impacts from surface runoff or the spread of invasive species should be minimized during project construction and operation.

MBS Sites of Biodiversity Significance and DNR Native Plant Communities can be viewed using the [Minnesota Conservation Explorer](#) or their GIS shapefiles can be downloaded from the [MN Geospatial Commons](#). Please contact the [NH Review Team](#) if you need assistance accessing the data. Reference the [MBS Site Biodiversity Significance](#) and [Native Plant Community](#) websites for information on interpreting the data.

- If the Wetland Conservation Act (WCA) is applicable to this project, please note that wetlands within *High* or *Outstanding* MBS Sites of Biodiversity Significance may qualify as “rare natural communities” under this Act. Minnesota Rules, part 8420.0515, subpart 3 states that a wetland replacement plan for activities that modify a rare natural community must be denied if the local government unit determines the proposed activities will permanently adversely affect the natural community.
- A calcareous fen (Storden 21, ID 33992) was documented near the proposed project. A calcareous fen is a rare and distinctive peat-accumulating wetland that is legally protected in Minnesota. The Wetlands Conservation Act, authorized by *Minnesota Statutes*, section 103G.223, states that calcareous fens may not be filled, drained, or otherwise degraded, wholly or partially, by any activity, except as provided for in a management plan approved by the commissioner of the Department of Natural Resources. Many of the unique characteristics of calcareous fens result from the upwelling of groundwater through calcareous substrates. Because of this dependence on groundwater hydrology, calcareous fens can be affected by nearby activities or even those several miles away. For more information regarding calcareous fens, please see the [Calcareous Fen Fact Sheet](#). Wind turbines and associated infrastructure need to completely avoid calcareous fens and not alter the hydrological conditions in the surrounding area. If this is not possible and it is determined the proposed project will impact a calcareous fen in any way, you will need to consult with the Wetlands Program Coordinator, Keylor Andrews (Keylor.Andrews@state.mn.us).

State-listed Species

- Wilson's phalarope (*Phalaropus tricolor*), a state-listed threatened bird, has been documented during the breeding season in the vicinity of the proposed project. This wetland species nests on the ground in wet meadows, grassy marshes, and along edges of shallow inland waters. Minnesota's Endangered Species Statute (Minnesota Statutes, section 84.0895) and associated Rules (Minnesota Rules, part 6212.1800 to 6212.2300 and 6134) prohibit the take of threatened or endangered species without a permit. Given the presence of this state-protected bird, **disturbance to suitable nesting habitat must be avoided between mid-May and July, the breeding season for Wilson's phalaropes.**

Please contact Review.NHIS@state.mn.us to confirm that the above avoidance measure will be implemented or to inform us that avoidance is not feasible. If avoidance is not feasible, the project area will need to be surveyed for active nests prior to any project disturbance. Requirements for surveys and lists of DNR certified lists of surveyors can be found at the [Natural Heritage Review website](#).

- Trumpeter swans (*Cygnus buccinator*), a state-listed species of special concern, have been documented nesting in the vicinity of the proposed project. During the breeding season, trumpeter swans select small ponds and lakes with extensive beds of cattails, bulrush, sedges, and/or horsetail. Ideal habitat includes about 100 m of open water for take-off, stable levels of unpolluted water, emergent vegetation, low levels of human disturbance, and the presence of muskrat (*Ondatra zibethicus*) houses and American beaver (*Castor canadensis*) lodges for use as nesting platforms. If any of the wetlands on site provide suitable habitat, swans may choose to nest in these wetlands. **The DNR recommends avoiding construction activities during the nesting season, late April through early June, near suitable nesting habitat.**
- Great Plains toad (*Anaxyrus cognatus*), a state-listed species of special concern, was documented in the vicinity of the proposed project. This species is found in remnant prairies and grasslands in Western Minnesota. They breed from May to July in highly ephemeral water-filled prairie depressions and have adapted to breed in flooded agricultural fields. **Given the presence of these rare toads, the DNR recommends that the use of erosion control mesh, if any, be limited to [wildlife-friendly materials](#).**
- The nearby Waterfowl Production Areas and Wildlife Management Areas lands attract many other species of birds during the breeding season and during migration. **It should be noted that the NHIS does not include records of migrating birds.**

Wind farms can affect birds due to construction disturbance during the breeding season, loss or degradation of habitat, and collisions with turbines or overhead transmission lines. Actions to minimize impacts to state-listed birds may include, but are not limited to, the following recommendations:

- Site turbines away from wetlands, waterbodies, and grasslands.
- Avoid siting turbines within potential flight paths between suitable habitat.
- Avoid construction activities within suitable habitat.
- Use the results of the post-construction fatality monitoring to inform adaptive management.

The DNR looks forward to receiving the results of any avian surveys and may have additional comments regarding state-listed birds at that time.

- Please visit the [DNR Rare Species Guide](#) for more information on the habitat use of these species and recommended measures to avoid or minimize impacts.

Federally Protected Species

- To ensure compliance with federal law, conduct a federal regulatory review using the U.S. Fish and Wildlife Service's (USFWS) online [Information for Planning and Consultation \(IPaC\) tool](#).

Environmental Review and Permitting

- Incorporate the relevant guidance, including setbacks, within the [DNR's Guidance for Commercial Wind Energy Projects](#) when determining infrastructure location and throughout the operation of this proposed project.
- Please include a copy of this letter and the MCE-generated Final Project Report in any state or local license or permit application. Please note that measures to avoid or minimize disturbance to the above rare features may be included as restrictions or conditions in any required permits or licenses.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location and project description provided with the request. If project details change or the project has not occurred within one year, please resubmit the project for review within one year of initiating project activities.

The Natural Heritage Review does not constitute project approval by the Department of Natural Resources. Instead, it identifies issues regarding known occurrences of rare features and potential impacts to these rare features. Visit the [Natural Heritage Review website](#) for additional information regarding this process, survey guidance, and other related information. For information on the environmental review process or other natural resource concerns, you may contact your [DNR Regional Environmental Assessment Ecologist](#).

Thank you for consulting us on this matter and for your interest in preserving Minnesota's rare natural resources.

Sincerely,

James Drake

Natural Heritage Review Specialist
James.F.Drake@state.mn.us

Cc: Haley Byron, Megan Benage, Jennie Skancke, Keylor Andrews