STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of the Application of Dodge County Wind, LLC for a Certificate of Need, a Site Permit, and a Route Permit for the up to 259 MW Large Wind Energy Conversion System and Associated 161 kV Transmission Line in Dodge, Mower and Steele Counties, Minnesota	Docket No. IP-6981/CN-20-865 Docket No. IP-6981/WS-20-866 Docket No. IP-6981/TL-20-867 OAH Docket No. 21-2500-38372

DIRECT TESTIMONY OF

TARA CORBETT

On Behalf of

DODGE COUNTY WIND, LLC

December 12, 2023

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Schedules

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Tara Corbett, and my business address is 6200 South Syracuse Way, Suite 475, Greenwood Village, Colorado, 80111.

Q. By whom are you employed and in what capacity?

A. I am employed by Atwell, LLC ("Atwell") as a Senior Environmental Consultant within Atwell's Specialty Services Department. In that role, I support environmental permitting and licensing of wind projects across the United States.

Q. For whom are you testifying?

A. I am submitting this testimony on behalf of the Applicant, Dodge County Wind, LLC ("DCW").

Q. Can you please summarize the consulting work you have provided to DCW?

A. Yes. Over the past 7 years I have provided environmental consulting services to DCW in support of its up to 252-megawatt ("MW") wind generation facility ("Wind Project") and its associated 161 kilovolt generation tie transmission line ("Gen-Tie"), which I collectively refer to as the "Project". Throughout this time I have been directly engaged in the day-to-day implementation and coordination of Atwell's scope of work, which includes support for: (i) development and processing of the Site Permit, Route Permit, and Certificate of Need applications (together, the "Applications")[1]; (ii) identification of environmental constraints; (iii) project mapping; (iv) natural resource field surveys; (v) aquatic resources surveys; cultural resource surveys; local and state agency coordination;

[1] DCW filed Amended Site Permit and Certificate of Need Applications on January 12, 2022, and an Amended Route Permit Application on January 14, 2022. References to "Applications" in my testimony refer to the amended applications, unless otherwise indicated.

(vi) public noticing; and (vii) Federal Communications Commission ("FCC") and National Environmental Policy Act compliance for the aircraft detection lighting system ("ADLS") towers.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to summarize and detail the environmental studies, surveys, impacts, and impact avoidance and mitigation measures related to the DCW Wind Project and Gen-Tie. For the Wind Project, my testimony: (i) overviews the environmental studies conducted; (ii) describes DCW's efforts to avoid environmentally sensitive areas when siting the Wind Project and how these considerations shaped its siting; and (iii) reviews the Environmental Assessment's ("EA") conclusions regarding the Wind Project.

For the Gen-Tie, my testimony: (i) provides an overview of the environmental considerations accounted for in DCW's amended application; (ii) describes the environmental considerations that shaped the identification of three route alternatives evaluated in the EA; (iii) provides an overview of environmental studies and surveys that have been conducted on behalf of DCW for the route alternatives and discusses additional studies that will be completed; and (iv) reviews the EA's conclusions regarding the Gen-Tie.

Q. What conclusions do you reach in your testimony?

A. For the reasons provided in my testimony, I conclude that the Wind Project and Gen-Tie, as demonstrated through the EA, are compatible with environmental preservation, sustainable development, and the efficient use of resources.

Q. Please summarize your qualifications and experience.

A. I have over 20 years of experience working in the environmental permitting field, which includes over 14 years of experience specializing in the planning and permitting of utility-scale wind, solar, and transmission line facilities. I have a Bachelor of Arts degree from Hanover College and a Master of Science degree in Geography from the University of Oregon.

Q. What schedules are attached to your testimony?

A. Attached to my testimony are the following schedules:

- Schedule 1 - Resume of Tara Corbett
- Schedule 2 – NTIA Response
- Schedule 3 – Environmental Post-Application Correspondence Log
- Schedule 4 – NHIS Review of the Gen-Tie

Q. What portions of DCW's Applications are you sponsoring?

A. I am sponsoring the environmental sections of the Applications, as well as the surveys and studies that I reference in my testimony.

Q. Was this testimony drafted by you or under your supervision?

A. Yes.

II. WIND PROJECT ENVIRONMENTAL STUDIES AND SITING

Q. Can you please identify the primary environmental studies and surveys that DCW conducted with respect to the Wind Project?

A. Yes. The primary environmental studies and surveys conducted to support the development of the Wind Project are provided in the appendices to the Site Permit Application and are described in the Application itself. These studies include: a

Telecommunications Study / Electromagnetic Interference Analysis (Appendix I); a Cultural Resources Literature Search (Appendix J); and wildlife surveys accompanied by an Avian and Bat Protection Plan ("ABPP") (Appendix M). Additionally, in accordance with Minnesota Rule 7854.0500, the Site Permit Application provides an analysis of the potential impacts of the Wind Project, proposed mitigation measures, and any adverse environmental effects that cannot be avoided (Section 8, subpart 7).

The Wind Project's Pre-construction Sound Analysis and Shadow Flicker Analysis is discussed in the testimony of DCW witness Mr. Lampeter.

a. Environmental Studies and Surveys – Telecommunications Study

Q. Can you please describe the Telecommunications Study/Electromagnetic Interference Analysis (the "Telecom Study") conducted by DCW?

A. Yes. DCW, through its affiliate, NextEra Analytics, conducted a Telecom Study for the Wind Project in July of 2021. The intent of the Study was to evaluate telecommunication systems, AM/FM radio and television towers, and beam paths in the vicinity of the Wind Project and to evaluate potential project impacts. The information gleaned from this evaluation was also used to inform the siting of the Wind Project's turbines and infrastructure, allowing DCW to site turbines outside of FCC-licensed microwave beam paths. Based on the Telecom Study, the impacts to communications, radio, and television are anticipated to be minimal.

Q. Since filing the Telecom Study with the Site Permit Application, have there been updates to the analysis?

A. Yes. At the request of the Department of Commerce, Energy Environmental Review and Analysis ("DOC-EERA"), DCW conducted an updated analysis in September of 2023,

which was subsequently filed with the Minnesota Public Utilities Commission ("Commission") on October 30, 2023. That updated study indicated that a new FCC-licensed microwave beam path was identified within the Project Site. On behalf of DCW, ComSearch conducted a detailed analysis of this microwave beam path and confirmed that the path intersects the location of DCW Turbine 14.

Q. How is DCW responding to this new information?

A. As further discussed in the testimony of DCW witness Mr. Cameron, DCW is coordinating with the microwave beam path owner to avoid potential impact.

b. Environmental Studies and Surveys – Cultural Resources

Q. What are the activities that led to the development of the Cultural Resources Literature Search submitted with DCW's Site Permit Application?

A. Since 2017 DCW has been conducting cultural resources investigations and coordination with the Minnesota State Historic Preservation Officer ("SHPO"). These investigations and searches examined cultural resource records available from the SHPO and the Office of the State Archaeologist ("OSA") within the Project Site and within a one-mile buffer of the Project Site.

Q. What were the findings of the literature search?

A. Based on the analysis of available records, no historic properties listed on the National Register of Historic Places ("NRHP"), Minnesota State Historic Sites Network, or the Minnesota State Register of Historic Places are within the Project Site or within one mile of the Project Site. Although the literature search identified 12 architectural resources and eight inventoried archaeological sites within the Project Site, DCW has sited

infrastructure to avoid direct impacts to all recorded architectural and archeological resources.

Q. How did the cultural resources investigations shape the design of the Wind Project?

A. The cultural literature review, as well as pedestrian surveys, helped inform the design of the Wind Project by enabling DCW to site Project infrastructure in a manner that will leave sensitive cultural resources undisturbed. As such, there are no direct impacts to recorded architectural and archaeological resources within the Project Site and within a one-mile buffer. Also, DCW designed the Project to include a 100-foot avoidance buffer around the Aurora Lutheran Cemetery and Saint John's Lutheran Cemetery to avoid direct impacts.

Q. Will DCW continue to monitor and address potential cultural site impacts as the Wind Project moves to construction?

A. Yes. Additional Phase I archaeological surveys will be conducted in areas where ground-disturbing activities are planned but have not yet been surveyed. These will be conducted in coordination with the SHPO prior to construction. If a significant archaeological resource is identified during additional Phase I archaeological surveys, the integrity and significance of the resource will be assessed in terms of the potential for NRHP eligibility. If the identified resource is significant and cannot be avoided by the Project, further investigation or mitigation of the resource may be needed and will be coordinated with the SHPO and OSA, as applicable. While avoidance of archaeological resources is the preferred option, mitigation of impacts to NRHP-eligible archaeological resources may include additional documentation through data recovery. The results of this

additional investigation or mitigation will be described and documented on a case-by-case basis, which will be compiled into a report and shared with SHPO and OSA.

Should Project construction or operation inadvertently encounter unanticipated archaeological resources, tribal resources, or human remains, the discoveries will be reported to the tribes, SHPO, and OSA, as applicable. In such a case, DCW will also prepare an Unanticipated Discoveries Plan ("UDP") for the Project.

Q. What tribal outreach did DCW conduct for the Wind Project?

A. In 2020, DCW conducted outreach to 31 tribes to provide an overview of the Project and to invite tribes to participate in Project coordination. A list of the tribes contacted is provided in the Site Permit Application, Appendix D: Agencies Contacted Regarding Project. A copy of the outreach letter is also included in the Application as Appendix E: Agency Correspondence and Responses.

In response to DCW's outreach, the Standing Rock Sioux Tribe, Upper Sioux Community, Rosebud Sioux Tribe, and Sisseton Wahpeton Oyate participated in Project micro-siting and subsequent Phase I archaeological field surveys. Tribal representatives did not identify any Wind Project concerns to DCW.

c. Environmental Studies and Surveys – Wildlife and Avian and Bat Protection

Q. Can you please describe the wildlife studies and ABPP filed with the Site Permit Application?

A. Yes. DCW developed a Wildlife Conservation Strategy/ABPP ("WCS/ABPP") in support of its efforts to avoid or minimize potential impacts to wildlife and avian and bat species throughout the development, construction, and operation of the Project. The WCS/ABPP includes studies and protective protocols developed in consultation with

environmental agencies and authorities, and outlines mitigation techniques that help to minimize wildlife impacts.

For avian and bat species, the WCS/ABPP was produced in conformance with established guidelines. In accordance with the U.S. Fish and Wildlife Service's ("USFWS") Land-Based Wind Energy Guidelines ("WEGs"), the WCS/ABPP documents those activities that DCW has completed to address potential risks to avian and bat populations and species of concern. The WCS/ABPP also records those steps taken to (i) adhere to federal and state bird and bat conservation and protection laws and regulations; (ii) identify, quantify, and analyze potential impacts to birds and bats that may use resources within the Project Area; and (iii) outlines measures that will be implemented to avoid and minimize potential impacts to birds and bats resulting from Project activities. The WCS/ABPP is a living document that will remain in effect through the life of the Project and will be updated in response to future studies and future conditions as they may evolve.

The WECS/ABPP also includes surveys, developed consistently with the WEG recommendations, evaluating potential direct and indirect impacts to wildlife and plants during construction and operation of the Project. Surveys completed prior to the submittal of the Site Permit Application include: (i) two years of acoustic bat surveys; (ii) two years of avian use surveys; (iii) two years of avian wetland utilization surveys; (iv) five years of raptor and eagle nest surveys; (v) one bald eagle roost survey; (vi) one targeted loggerhead shrike and Henslow's sparrow survey; and (vii) one desktop assessment and roadside survey for Sullivant's milkweed. Avian surveys used Minnesota Department of Natural Resources ("MNDNR") guidance for commercial wind energy

projects and avian recommended survey protocols for wind energy projects as well as the USFWS WEGs and Eagle Conservation Plan guidance.

Q. How have these studies helped to inform the development of the Wind Project?

A. The WCS/ABPP and other related natural resource studies have been instrumental in the siting and design of the Wind Project. With the guidance provided by these studies, the Wind Project's impacts to wildlife and wildlife habitat are expected to be minimal because grasslands, wooded areas, shrublands, and other areas identified as important to wildlife are limited within the Project Area and have largely been avoided through the design of the Wind Project. No federally listed species were observed and only minor impacts to grasslands, shrublands, and wetlands may occur. The studies also indicate that bird and bat mortalities that may occur at the Wind Project during operations are unlikely to affect populations of most species, including species of conservation concern. Impacts to birds and bats as a result of the Project are not expected to differ markedly from those reported by other previous studies in agricultural settings within Minnesota.

In the case of bats, DCW has sited the Project to avoid bat habitat to the maximum extent feasible, specifically to afford the greatest protection to the federally threatened northern long-eared bat. DCW moved 17 turbines out of an avoidance area delineated by the MNDNR in May 2017 and all turbines are sited at least 1,000 ft from wooded patches of 10 acres or greater in size.

For avian species, DCW has also sited turbines and associated infrastructure to avoid specific habitat types (*e.g.*, grassland) for protected and sensitive species. Additionally, DCW placed a two-mile buffer on eagle nests so that no turbines would be located closer than two miles from an eagle nest, which affords greater protection to this

species. No National Audubon Society Important Bird Areas ("IBA") are located in the Project boundary and the closest IBA is approximately 25 miles from the Project.

Q. Has DCW conducted any further wildlife surveys or studies since filing its Site Permit Application?

A. Yes. Since the submittal of the Application, WEST completed additional bat surveys and eagle nest surveys during 2022. The 2022 bat surveys were completed in habitat determined to be potentially suitable for the northern long-eared bat ("NLEB") and a secondary qualitative review was completed on all low- and high-frequency bat calls. The review concluded the probable absence of both NLEB and tricolored bats in the Wind Project Site. All other bat species observed during the 2014 and 2020 surveys were present in 2022.

Findings from the 2022 eagle nest surveys confirmed no additional nests were found within two miles of the Project area and one nest, which was first observed as an active and occupied nest in 2020 and 2021, was no longer present.

Q. Does DCW plan to conduct any further wildlife surveys or studies?

A. Yes. During construction, DCW will avoid tree and shrub removal within suitable Loggerhead Shrike habitat during April through July breeding season. If tree or shrub removal will occur during their breeding season, DCW will coordinate with MNDNR to identify potentially suitable habitat and have a qualified surveyor inspect the trees or shrubs for active nests prior to removal. Also, once the Wind Project is constructed and is operating, DCW will conduct post-construction avian/bat mortality monitoring following the USFWS WEGs and recommendations by MNDNR for a minimum of two

years. The monitoring protocol will be developed through coordination with the MNDNR and, once developed, will be detailed in the WCS/ABPP.

d. <u>Environmental Studies and Surveys – Natural Resources</u>

Q. How has DCW's review of natural resources shaped the siting of the Wind Project?

A. Over the decade that the Project has been in development, natural resources have been a key consideration in the design of the Wind Project. Over time, Project Site iterations have been refined to move the Wind Project infrastructure away from sensitive areas. For example, the Dodge Center Creek area and the Oak Glen wetland area are fully removed from the Project Site in the current proposal. These siting refinements, supported by wetland and avian studies (*e.g.*, bat acoustics, avian use, wetland utilization and nest surveys), also led the removal of the state-owned Marsh Wren Wildlife Management Area ("WMA") and Dodge Center Creek Waterfowl Production Area ("WPA") from the Project Site. In areas where sensitive environmental areas remain, such as near the Hythecker Prairie Scientific and Natural Area ("SNA") and the state-owned McMartin WMA that partially overlaps the Project Site's northern border, DCW sited infrastructure outside of these areas and used the Minnesota standard 3x5 rotor diameter setback to minimize impacts to these environmental resources. Also, it is of note that virtually all of the Project Area (99.9%) is located on privately owned lands.

Q. Were surface water and wetlands analyses conducted for the Wind Project?

A. Yes. Field work was undertaken to evaluate surface water and wetlands. Field work occurred between the months of May and October during the 2018 to 2023 period and were conducted using the standard 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and Midwest Regional Supplement. Prior to undertaking field

wetland work, Atwell conducted an extensive review of current and historical documentation including aerial photographs, United States Geological Survey ("USGS") topographic maps, National Wetlands Inventory Maps, USGS National Hydrography dataset maps, MNDNR Public Water Inventory maps, county soil surveys, and Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Maps. Proposed areas of ground-disturbing activities within the Project Site were also evaluated to identify wetland areas and delineate wetland boundaries. These field efforts were completed in October of 2023.

Q. Are any impacts to wetlands anticipated for the Wind Project?

A. Although the goal of DCW is to avoid wetlands to the extent practicable, impacts to wetlands are anticipated. Where Wind Project infrastructure may impact federal or state jurisdictional features, DCW will obtain the appropriate permits for the USACE, MNDNR or state and local government units. If adverse impacts to wetlands are unavoidable, best management practices ("BMPs") consistent with the Minnesota Pollution Control Agency ("MPCA") Stormwater BMP Manual will be employed to protect topsoil, minimize soil erosion, and protect wetland resources from direct and indirect impacts. Depending on site-specific needs, employment of seasonal construction scheduling, temporary timber matting, erosion control blankets, mulch, straw bales, rolls, tackifiers, temporary seeding, hydromulch, or sediment fencing may be used to manage soil erosion.

Q. **Has DCW requested a recent review of the Wind Project from National Telecommunications and Information Administration ("NTIA")?**

A. Yes. On October 5, 2023, DCW requested that the NTIA review the Wind Project. On December 6, 2023, DCW received a letter stating that no reviewing agencies had concerning issues with turbine placement in the Project Area. A copy of the letter received from NTIA is attached to my testimony as Schedule 2.

III. ENVIRONMENTAL BENEFITS OF THE WIND PROJECT

Q. Are there environmental benefits attributable to the Wind Project?

A. Yes. Wind energy production uses no water resources to generate electricity, creates nominal waste by-products, and creates no hazardous waste cleanup obligation at the end of a project's productive life. While construction of wind projects requires the use of resources and results in some emission of greenhouse gases or other air pollutants, DCW operations represent a clean, renewable source of energy that will not create greenhouse gases or other air pollutants, such as particulate matter, mercury, or carbon dioxide.

The Wind Project is also consistent with Minnesota's Renewable Energy Standard ("RES") policies for the production of electricity, including the preference for renewable energy sources and goal to reduce carbon emissions. With respect to the RES, the state's goal was recently modified to require each electric utility to generate or procure carbon-free energy technology so that the electric utility generates or procures an amount of electricity from carbon-free energy technologies to make up at least 80 percent of the public utility's total retail electric sales to retail customers in Minnesota by the end of 2030, at least 90 percent by 2035, and 100 percent by 2040 (Minn. Stat. 2023, § 216B.1691, subd. 2g).

According to Minn. Stat. 2023, § 216B.1691, subdivision 2b, beneficial electrification is the substitution of electricity for a fossil fuel that either "saves the consumer money over the long run compared with continued use of fossil fuel; enables an electric utility to better manage its electric grid network; or reduces negative environmental impacts of fossil fuel use, including but not limited to statewide greenhouse gas emissions." The renewable nature of the Wind Project will also provide beneficial electrification by operating as a zero-emission electrical energy resource and reducing negative environmental impacts of fuel use, including regional and statewide greenhouse gas emissions.

Operation of the Wind Project will also result in substantial greenhouse gas emission savings compared to serving the same electric load with non-electric fossil fuel energy sources. Comparing the Wind Project to other fossil-fueled facilities, the Wind Project is estimated to emit over its 30-year life just under 740,000 kg carbon dioxide ("CO_2")[2], as compared to approximately 5 billion kg of CO_2 for a natural gas facility and 6 billion kg CO_2 for a coal-fired facility producing a comparable capacity of energy.

IV. GEN-TIE ENVIRONMENTAL STUDIES AND SITING

a. Gen-Tie Environmental Studies and Surveys

Q. What are the environmental studies and siting that DCW has undertaken for the Gen-Tie?

[2] The limited amount of greenhouse gas emissions is primarily attributable to vehicle exhaust associated with Wind Project maintenance.

A. DCW analyzed potential impacts to human and environmental resources and provided an environmental review in Sections 5.0 and 6.0 of its Route Permit Application. Specifically, a cultural resources literature review was completed for the Gen-Tie route, and DCW committed to avoid and minimize impacts and to develop a UDP to address any unanticipated discoveries of cultural resources. DCW also committed to avoiding and minimizing impacts to any discovered significant archaeological or architectural resources to the extent practicable during all phases of the Project, including development siting, construction, and operation. If impacts to cultural resources are unavoidable, DCW and its cultural consultant committed to coordinating with SHPO and OSA, as applicable. As mentioned earlier in my testimony, in 2020, DCW conducted outreach to 31 tribes and several tribes participated in field evaluations for the Project. No concerns or tribal resources were identified by tribal representatives for the Application route.

DCW also conducted an aeronautical evaluation to identify areas where transmission line structure heights could be restricted. DCW committed to receiving determination of no hazard from the Federal Aviation Administration on Project structures requiring such a determination prior to structure erection.

DCW conducted desktop analysis to identify surface waters and wetlands within the Gen-Tie right-of-way ("ROW"). To minimize temporary surface water impacts during the construction of the Project, DCW committed to avoiding surface waters where feasible by spanning and committed to specific topsoil protection actions, protection of disturbed and exposed soil, and revegetation of temporary surface disturbance with appropriate plant species. DCW also committed to applying for a National Pollutant

Discharge Elimination System ("NPDES") Permit from the MPCA, which will include development of a Stormwater Pollution Prevention Plan ("SWPPP").

Gen-Tie routing included identifying and avoiding potentially jurisdictional wetland areas, and DCW will seek permits from appropriate agencies should unavoidable indirect temporary impacts to wetlands be anticipated. The impacts would be minimized by DCW's commitment to implement BMPs to protect topsoil, minimize soil erosion, and revegetate disturbed areas with non-invasive species. DCW also committed to implementing BMPs during construction in order to control and prevent the introduction of invasive species and to employ BMPs to minimize fugitive dust and emissions created by construction activities.

Desktop analyses were also conducted to identify the potential for sensitive flora and fauna to occur along the Application route and to avoid known locations for ESA- or MNDNR-listed threatened and endangered species. No listed species, or listed species designated critical habitat, were located within the Application route. Also, a ground-based nest survey was conducted in the spring of 2021 to identify eagle nesting habitat within one mile of the Application route. DCW committed to designing the Gen-Tie to follow the appropriate suggested practices outlined by the Avian Power Line Interaction Committee collision manual and to continue to coordinate with MNDNR to integrate recommendations, such as suitable line marking procedures, into Project design. This will minimize impacts to avian taxa, including nesting raptor species, and ensure coordination with MNDNR regarding applicable BMPs in the event that territorial or nesting birds are discovered occupying the Gen-Tie ROW at the time of construction.

Q. Can you please provide an overview of the agency environmental coordination that has occurred for both the Wind Project and Gen-Tie Project since the time of the Applications' submittal?

A. Yes. DCW provided a summary of agency coordination in Appendix E to the Site Permit Application Appendix E and in Appendix F to the Route Permit Appendix. Schedule 3 includes a log summarizing agency environmental coordination that has occurred since the Applications were submitted. DCW witness Mr. Cameron's testimony also provides a summary of additional outreach efforts for the Project.

b. Environmental Considerations in Siting

Q. How are environmental considerations and potential impacts evaluated in transmission line siting?

A. Minnesota laws and regulations require that consideration of environmental impacts be a principal focus of transmission line permitting. As discussed in the Route Permit Application, Minn. Stat. § 216E.03, subd. 7(a), directs that the Commission's route permit determinations be guided by the state's goals to conserve resources, minimize environmental impacts, minimize human settlement and other land use conflicts, and ensure the state's electric energy security through efficient, cost-effective power supply and electric transmission infrastructure. Additionally, subd. 7(e) of the same section requires the Commission to make specific findings that it has considered locating a new transmission line on an existing transmission line route or parallel with existing road ROW and, to the extent those are not used for the route, the Commission must state the reasons.

In addition to the statutory criteria mentioned above, Minn. Stat. § 216E.03 and Minn. R. 7850.4100 direct the Commission to consider the following 13 relevant factors when determining whether to issue a route permit for a high voltage transmission line. Those factors – which principally have an environmental nexus – are as follows:

A. Effects on human settlement, including, but not limited to, displacement, noise, aesthetics, cultural values, recreation, and public services;

B. Effects on public health and safety;

C. Effects on land-based economies, including, but not limited to, agriculture, forestry, tourism, and mining;

D. Effects on archaeological and historic resources;

E. Effects on the natural environment, including effects on air and water quality resources and flora and fauna;

F. Effects on rare and unique natural resources;

G. Application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity;

H. Use or paralleling of existing ROWs, survey lines, natural division lines, and agricultural field boundaries;

I. Use of existing transportation, pipeline, and electrical transmission systems or ROWs;

J. Electrical system reliability;

K. Costs of constructing, operating, and maintaining the facility that are dependent on design and route;

L. Adverse human and natural environmental effects that cannot be avoided; and

M. Irreversible and irretrievable commitments of resources.

Q. Did these factors guide DCW's evaluation of route options?

A. Yes, they did. As described in the testimony of DCW witness Mr. Koegel, analysis of these factors helped to identify the most optimal routing options for the Gen-Tie.

Q. Were there other environmental factors that guided DCW's evaluation of potential routes?

A. Yes. DCW considered additional guiding factors identified during discussions with local government units, agency and public officials, and landowners. These discussions resulted in a more site-specific list of factors that helped guide the development of the route identified in the Route Permit Application. DCW used the following additional criteria to further assess and refine potential routes:

- Avoid local WMAs, including the Vernon WMA, South Fork Zumbro River WMA, Tri-Cooperative WMA, and the Bud Jensen WMA;
- Avoid conservation easements;
- Minimize route segments within Dodge County 100-year floodplain areas;
- Avoid local mapped sinkholes and karst areas;
- Minimize route segments near streams and rivers;
- Maximize distance from, or span, local archaeological and historic resource sites;
- Maximize distance from radio towers and wind farm turbines;
- Maximize distance from residences;
- Avoid terrain that makes construction and maintenance of a transmission line more difficult;

- Minimize multiple crossings of roadway within short distances;
- Minimize repeated crossings of waterways; and
- Minimize woodland clearing.

Q. How did evaluation of these factors inform the route proposed in the Route Permit Application?

A. The routing evaluation helped DCW avoid impacts to many resources. As detailed in the Application, the proposed route was expected to: (i) not cause displacement or introduce a new aesthetic feature type to the landscape; (ii) not exceed MPCA noise standards; (iii) avoid anticipated interference with FM radio, television, cell phones, and GPS signals; (iv) result in a small financial gain for the local economy; (v) not impact cultural values or have a meaningful impact on total prime farmland; (vi) avoid permanent impacts to snowmobiling activities; (vii) avoid significant impacts to public services and transportation; (viii) avoid adverse effects to public health and public safety; (ix) avoid impacts to commercial forestry and mining operations; (x) not have a negative effect on area tourism; (xi) avoid impacts to known archaeological, historic, and tribal resources; (xii) not have more than negligible impacts to air quality, water quality, wetlands streams, primary water resources and floodplains; (xiii) not impact groundwater resources; (xiv) avoid impact to high-quality biodiversity significance, designated native plant communities and native prairies; (xv) avoid Wildlife Management Areas and Important Bird Areas, raptor nests and permanent impacts to woodland habitats; and (xvi) to have minimal impacts to terrestrial and aquatic/wetland wildlife species.

c. Environmental Considerations Associated with Routes Under Review

Q. Have you analyzed the routes proposed by the Advisory Task Force ("ATF") and reviewed in the EA?

A. Yes. The ATF recommended three route options for EA review: (i) the Hybrid Route Alternative (Segments 1, 2, 7, 6, 4); (ii) the Highway 56 Route Alternative (Segments 1, 2, 3, 4); and (iii) the County Road Alternative (Segments 1, 5, 6, 4). A visual depiction of the routes and segments is provided on page 140 of the EA.

Q. What are the environmental attributes that are unique to the Hybrid Route Alternative?

A. This alternative uses existing ROW for nearly 60 percent of its length and is near approximately 40 residences, compared to the 38 residences near the County Road Route and 112 residences near the Highway 56 Route. The Hybrid Route crosses 29 water crossings, compared to 30 water crossings along Hwy 56 and 23 water crossings along the County Road Route.

Q. Can you summarize the environmental attributes that are unique to the Highway 56 Route Alternative.

A. Yes. The Highway 56 Route Alternative has the most residences within the vicinity (112 residences) and is the only route to pass through an urban expansion area. The Highway 56 Route Alternative also is generally closer in proximity to sites of moderate biodiversity significance, has the largest amount of wetland complexes, and crosses surface waters slightly more times than the other alternatives. It is also the only route to require the utilization of narrower township road ROW in Mower County, which could

cause impacts to public services in Mower County along 320th Street to the extent ditches and drainage patterns within township road ROWs are compromised.

Q. What are the environmental attributes that are unique to the County Road Alternative?

A. While the County Road Alternative has the fewest number of water crossings (23 crossings), it has a relatively higher proportion of its length in private easements. Building this route would result in approximately 11 more structures in agricultural fields compared to the other two routes. Airport impacts, though mitigable, could occur in two locations along this route. The Highway 56 Route Alternative also has two such locations. Because the County Road Alternative requires voluntary easements that DCW is unable to secure, DCW has deemed this route unviable.

Q. What environmental surveys and studies are planned for the future for the Gen-Tie?

A. A number of environmental surveys are planned to commence after the route is approved by the Commission. First, cultural surveys will be performed for the Gen-Tie, and tribal representatives will be invited to participate in the surveys. Once the route is selected and pole locations are identified, proposed pole locations within undisturbed land that have not been surveyed will be examined by a qualified archaeologist to identify any unrecorded archaeological sites that could possibly be present in these locations.

Second, wetland surveys are also planned for the Gen-Tie. Negligible impacts to wetlands are expected from Gen-Tie construction and operations. Very few wetlands would be intersected by the Gen-Tie, which is in part due to the use of existing road ROW. National Wetland Inventory-identified wetland resources will be field verified

and delineated prior to construction. Every attempt to avoid wetlands will be made during final design. With average spans of 500 to 800 feet, Gen-Tie structures will be sited to avoid or minimize adverse impacts to these resources. As most of the Gen-Tie is planned within road and transmission line ROW, ample access to the ROW is anticipated, which will further reduce the potential for wetland impacts. If required, appropriate wetland permits, as well as an NPDES permit, will be obtained prior to project construction.

Third, an eagle nest survey will be conducted along the Gen-Tie route, which will evaluate areas not surveyed during the eagle nest survey completed in 2022 that are within one-mile-buffer of the Gen-Tie ROW. The survey will assist DCW in confirming that no bald eagle nests are within 660 feet of the selected route ROW.

Finally, if tree clearing along the Gen-Tie needs to be conducted between mid-March and late October, DCW would also conduct presence/absence bat surveys. In addition, if MNDNR identifies listed plant species and recommends plant surveys during the flowering period, DCW will conduct plant surveys if direct impacts cannot avoid areas of native communities in the vicinity of the listed plant observation records.

During construction, DCW will avoid tree and shrub removal within suitable Loggerhead Shrike habitat during the April-through-July breeding season. If tree or shrub removal will occur during the breeding season, DCW will coordinate with MNDNR to identify potentially suitable habitat and have a qualified surveyor inspect the trees or shrubs for active nests prior to removal.

V. OBSERVATIONS CONCERNING THE EA

Q. Are there any comments you would like to make regarding the EA conclusions related to the Wind Project?

A. Yes. While the EA's evaluation of the Wind Project and identification of impacts were similar to impacts and conclusions stated in the Site Permit Application, the EA articulated slightly different impacts than the Application for a limited number of resources. However, identification of mitigation measures in the EA do not significantly differ from those DCW committed to in the Application. Therefore, DCW agrees with the EA findings for the Wind Project.

Q. Do you have any comments regarding the EA conclusions related to the Gen-Tie?

A. Although the EA evaluated three different routes than that presented in the Route Permit Application, the EA's evaluation of the alternate routes and identification of impacts were quite similar to impacts and conclusions stated in the Route Permit Application. This is unsurprising given that the routes all primarily utilize road ROW and are within the same general geographic context. The EA's overall evaluation of the route alternatives concluded that the three routes would have relatively similar environmental impacts compared to each other. While the EA articulated slightly different impacts than the Route Permit Application for a limited number of resources, the identification of mitigation measures in the EA do not significantly differ from those the DCW committed to in the Application.

Also, DCW notes that the Proposed Draft Route Permit (Appendix C to the EA) specifies a permanent Gen-Tie ROW of 100 feet, instead of the 150-foot ROW specified in the Draft Route Permit accepted by the Commission in its September 1, 2023 Order.

DCW anticipates that a 100-foot ROW as suggested in the Proposed Draft Route Permit would accommodate Gen-Tie infrastructure along straightaways, but a wider ROW of up to 250 feet may be needed at intersections, depending on final design. Thus, DCW recommends that the Final Route Permit be revised to indicate a permanent ROW of 100 feet, except where appurtenances such as supporting guy wires may be needed. In these locations, the ROW may be as wide as 250 feet. Other than this detail, DCW agrees with the EA's findings for the Gen-Tie.

VI. RESPONSES TO AGENCY, COUNTY, AND PUBLIC COMMENTS

Q. Have you reviewed the comments filed in this proceeding related to environmental issues?

A. Yes. I reviewed and assessed comments filed by MNDNR, the counties, and the public, among others.

a. Responses to MNDNR Comments

Q. What issues were raised in MNDNR's comments?

A. MNDNR submitted comments on a variety of environmental topics, including the following:

- Suggested another NHIS review be conducted for the Wind Project to address minor site plan changes.
- Indicated that an Avoidance Plan is required for the Wind Project for state endangered species: Henslow's sparrow, loggerhead shrike, and horned grebe.
- Requested that substation lighting minimize blue hues.

- Recommended that the draft site permit include a condition requiring coordination to ensure snowmobile rider safety.
- Recommended that the draft site permit include a special permit condition requiring the use of wildlife friendly erosion control measures.
- Indicated that the site permit application mischaracterizes the impacts of wind energy.
- Commented that Sullivant's milkweed, a state-listed threatened plant, is present along 680th Street and preferred the Applicant route the Gen-Tie over an alternate applicant segment.
- Requested consideration of a Gen-Tie route alternative that would avoid fragmentation of riparian habitat near the Zumbro River between 720th and 740th Street.
- Requested that the Applicant resubmit an NHIS request for the Gen-Tie.

Q. What is DCW's position concerning MNDNR's request for an additional NHIS review for the Wind Project?

A. DCW is agreeable to submitting such a request and did so in August 2023 for the Wind Project. While an NHIS review response has not yet been received, it is anticipated that the NHIS review for the Wind Project would likely reach a conclusion consistent with the past NHIS reviews for the Wind Site.

Q. How does DCW respond to MNDNR's comments related to the requirement of an Avoidance Plan?

A. DCW will coordinate with MNDNR to provide an Avoidance Plan for state endangered species. In the Site Permit Application and WCS/ABPP, DCW has included avoidance

strategies for state endangered species, such as the Henslow's sparrow, loggerhead shrike, and horned grebe. These construction avoidance measures include avoiding and minimizing impacts on natural areas (including native prairie and wetlands); utilizing existing public roads and access roads when feasible to avoid clearing natural habitats; training construction personnel to identify sensitive resources, mitigate potential wildlife conflict situations, and provide proper responses; and adhering to the project Prairie Protection Plan. In addition, DCW will avoid construction activities in natural areas during the breeding season, to the extent feasible, between April and July.

Q. What is DCW's position concerning MNDNR's comments related to the emanation of blue hues from the Project substation?

A. In response to MNDNR's request that substation lighting minimize blue hues, DCW committed to avoid "blue hue" nighttime lighting of the Project substation and will use amber-hued lighting. Nighttime lighting will only be illuminated when technicians are present and working, and the lighting will have an automatic shut off mechanism.

Q. What is DCW's response to MNDNR's comments related to adding a Site Permit condition for snowmobile rider safety?

A. MNDNR recommended that DCW's Site Permit include a condition requiring coordination to ensure snowmobile rider safety. MNDNR also commented that snowmobile trails are best avoided by limiting or refraining from construction activities from December 1 to April 1. In light of these comments, DCW commits to continue to coordinate with MNDNR should construction activities occur between December 1 and April 1.

Q. How does DCW respond to MNDNR's comments related to adding a Site Permit condition for wildlife friendly erosion controls and avoiding chemical dust suppressants containing chloride?

A. DCW is amenable to these conditions and notes they are included in the EA Appendix C Draft Site Permit. DCW will use wildlife friendly erosion controls such as "bio-netting" or "natural netting" types and mulch products without synthetic (plastic) fiber additives. DCW does not plan to use chemical dust suppressants containing chloride.

Q. What is DCW's position concerning MNDNR's comments related to the impact of wind facilities?

A. MNDNR commented that the Site Permit Application mischaracterizes the impacts of wind energy by implying that wind energy has nominal impacts. In response, DCW would like to clarify that DCW was characterizing wind energy's beneficial electrification impact and not intending to encompass impacts to birds and bats.

Q. How do you respond to MNDNR's comments to route the Gen-Tie away from environmentally sensitive areas?

A. MNDNR commented that Sullivant's milkweed, a state-listed threatened plant, is present along 680th Street and preferred the Applicant route over an alternate Applicant segment. The avoidance of 680th Street was identified as a priority during the ATF process and the segment along 680th Street was dropped from further analysis. Likewise, MNDNR identified an alternative route in order to avoid a Board of Water and Soil Resources 160-acre wetland bank property identified by public comment. This area is avoided and no routes along this wetland bank property are still under consideration.

MNDNR also requested consideration of an alternative that would avoid fragmentation of riparian habitat near the Zumbro River between 720th and 740th Street. While this area is still under consideration, the EA provides a route alternative to avoid this area *(i.e.*, the Highway 56 Route). Should this area not be avoided, DCW will avoid habitat fragmentation to the extent feasible as discussed in the Route Permit Application.

Q. Has DCW requested an NHIS review for the Gen-Tie?

A. Yes. In July 2023, DCW submitted a request for an NHIS review of the three routes to be evaluated in the EA. A letter response was provided by MNDNR dated December 5, 2023, and the letter is provided with my testimony as Schedule 4.

Q. What comments did MNDNR make in the NHIS review for the Gen-Tie?

A. In the NHIS letter, MNDNR made the following comments:

- MNDNR recommended that in areas that are outside of road ROW, the Gen-Tie avoid impacts to Minnesota Sites of Biodiversity Significance ("MBS"), including those labelled as Below or Areas with Potential Local Conservation Value. If avoidance is not feasible, MNDNR stated that a qualified surveyor is required to conduct a habitat assessment in any undisturbed areas within MBS sites that will be impacted by the Gen-Tie. If potential habitat for rare plant species is documented and the areas cannot be avoided, a botanical survey will be required.
- MNDNR commented that loggerhead shrike has the potential to be in the vicinity of the Gen-Tie and thus, tree and shrub removal is required to be avoided during the breeding season of April through July. Should tree or shrub removal occur during the breeding season, MNDNR may request that a survey for active nests be conducted prior to construction.

- MNDNR recommended that to avoid disturbance of nesting Bell's vireo, a state-listed species of special concern, if feasible, DCW should avoid tree and shrub removal from May 15 through August 15.
- MNDNR recommended that tree removal be avoided from June 1 through August 15 to minimize impacts to bats.

Q. What is your response to the comments provided in the NHIS review letter for the Gen-Tie?

A. DCW plans to address MNDNR's comments as follows:

- In areas outside of road ROW, DCW will attempt to avoid MBS sites, including those labelled as Below or Areas with Potential Local Conservation Value. If avoidance is infeasible, DCW will coordinate with MNDNR to have a qualified coordinator conduct a habitat assessment and, if necessary, a botanical survey.
- Minimal tree and shrub removal is anticipated along the Gen-Tie. Where removal is necessary, DCW plans to conduct removal prior to April 1 or after August 15 to minimize potential impacts to loggerhead shrike, Bell's vireo, and bats. Should removal be necessary between April and August 15, DCW will coordinate with MNDNR.

b. Responses to Comments from Counties

Q. How do you respond to comments submitted by Dodge County on environmental issues related to the Project?

A. I respond to Dodge County's comments as follows:

- With respect to Dodge County's 2022 scoping comments clarifying that it wanted DCW to site turbines to conform to Dodge County setback requirements

associated with Dodge County ordinance Chapter 16.51 (which pertains to performance standards for wind facilities that are less than 5 MW in size), no issue exists. DCW's wind turbine siting is consistent with Dodge County's ordinance.

- Dodge County also inquired whether DCW applied for a variance to address Minn. R. 7850.4400, Subp. 4, which limits large electric power generating plant sites on more than 0.5 acres of prime farmland per MW of net generating capacity, unless there is no feasible and prudent alternative. DCW did not apply for a variance because the Project has been sited such that less than 0.5 acres of prime farmland per MW of net generating capacity will be impacted.
- In addition, Dodge County requested that agricultural operations not be negatively impacted by turbine and access road construction or placement and that efforts should be made to work with local authorities on the timing and location of construction to mitigate any adverse effects on agricultural activities. However, the Project is not expected to significantly impact agricultural land use and landowners will be directly compensated for both temporary construction impacts and permanent loss of farmland. Revenue lost from the removal of land from agricultural production will be offset by lease payments to landowners according to their respective voluntary contracts in place with DCW. DCW will coordinate the timing and location of construction activities with landowners participating in the project and local authorities.
- Dodge County also expressed concern for adequate stormwater management. In response, DCW will apply for a NPDES Permit from the MPCA, which will

include development of an SWPPP. The SWPPP will systematically employ BMPs for the protection of surface waters, consistent with the MPCA Stormwater BMP Manual. These will include specific topsoil protection actions, protection of disturbed and exposed soil, and revegetation of temporary surface disturbance with appropriate plant species. Temporary culverts or other temporary crossing devices will be utilized to maintain proper drainage in accordance with SWPPP and any permit requirements. In addition, as discussed in the Site Permit Application, Project activities are not expected to impact groundwater resources due to compliance with setbacks from water wells, limited depth of Project construction, and the minimal water-related needs of the Project. With these mitigation measures in place, negligible adverse impacts to surface water or groundwater are anticipated.

- Lastly, Dodge County objected to any activities that would violate floodplain regulations, jeopardize county participation in the National Flood Insurance Program, or prevent the county from obtaining funding for emergency services. I can confirm that the Wind Project has been designed to avoid siting of any above-ground, permanent structures within FEMA-designated floodplains. Project collection lines and construction easements (temporary impacts) are located within FEMA floodplains.

Because no permanent, above-ground Project infrastructure is planned within FEMA designated floodplains, DCW understands that the Project would not violate floodplain regulations or jeopardize Dodge County's participation in the National Flood Insurance Program or prevent the county from obtaining

funding for emergency services. While there is the potential for temporary impacts to floodplain areas during project construction, no wind turbines or above-ground structures are planned within FEMA floodplains or floodplain areas as designated by Dodge County floodplain mapping. Therefore, negligible impacts to surface water or floodplains are expected from operation of the proposed Project.

Q. Can you respond to comments submitted by Mower County concerning environmental issues?

A. Yes. Mower County sought clarification in its comments that Mower County Shoreland Overlay regulations should be followed. DCW can confirm that transmission line pole placement will be located so as to fully span the shoreland areas.

Q. Have you had any coordination with the Minnesota Department of Agriculture ("DOA") regarding whether an agricultural mitigation plan will be required for the transmission line construction?

A. Not to date. DCW plans to coordinate with DOA once a route is selected for the Gen-Tie.

c. Responses to Comments from the Public

Q. Can you please address the public comments submitted in this proceeding that raise environmental concerns and considerations?

A. Yes. The public comments submitted broadly relate to the following three topics: (i) conservation easement impacts; (ii) impacts to wildlife and habitat; and (iii) impacts on soils, agriculture, and farming. I will address each of these individually.

The locations of the conservation easements have been incorporated into Wind Project and Gen-Tie planning in order to avoid impacts from Project activities. Therefore, no easements should be impacted by Project infrastructure or construction. In addition, as I mentioned in my testimony above, the avoidance of conservation easements was a specific factor in DCW's Gen-Tie routing proposal, and none of the routes proposed in the EA compromises that avoidance.

As to the wildlife and habitat impacts, DCW's Site Permit Application and associated WCS/ABPP, as well as DCW's Route Permit Application, address potential impacts of the proposed Wind Project and Gen-Tie to wildlife and habitat. The WCS/ABPP, integrating appropriate studies, demonstrates that the proposed Wind Project and Gen-Tie, as designed and sited, meets all applicable requirements related to its impact on wildlife and habitat. Moreover, wetland delineations and fen review are integral to the siting of Project facilities and have been taken into account by DCW. No calcareous fens listed by the MNDNR are within the Project Site.

Finally, the Project should have minimal impact on soils and agricultural land. As discussed in the both the Site Permit and Route Permit Applications, neither the Wind Project nor the Gen-Tie is expected to significantly impact agricultural land use or the general character of the area. Where loss of farmland cannot be avoided, landowners will be directly compensated for both temporary construction impacts and permanent loss of farmland. Revenue lost from the removal of land from agricultural production will also be offset by lease payments to landowners according to their respective voluntary contracts with DCW. While soil compaction, loss of planting opportunity, crop damage, and drain tile damage could occur due to construction, these should not materially change

the quality and use of soil in the Project Area. Also, changes in agricultural equipment maneuvering routes adjacent to the Gen-Tie and associated structures may be required but are expected to have a negligible effect on overall crop production.

VII. CONCLUSION

Q. Does this conclude your testimony?

A. Yes.

Tara Corbett | Technical Manager

EDUCATION
Master of Science
Geography
University of Oregon, 2003

Bachelor of Science
Hanover College, 1998

PRESENTATIONS
Successfully Addressing Regulatory Requirements for Linear Projects. American Society of Civil Engineers Annual Pipelines Conference. Paper Presentation. August 2009.

Stakeholder Involvement in Water Quality Management. University of Oregon. March 2003.

YEARS OF EXPERIENCE
20+

With more than 20 years of experience, Ms. Corbett leads environmental due diligence, permitting, and coordination efforts for wind and solar energy facility development and pipeline and transmission line projects. She brings expertise in utility siting, land use management, stakeholder and agency engagement, and permitting associated with the development of energy projects throughout the United States. Ms. Corbett is a key technical advisor for numerous large and complex permitting projects and portfolios involving multiple stakeholders and government agencies and has managed the development of many federal, state and local development permits. She is adept at navigating the requirements for preparing documents to satisfy permitting requirements, both from a procedural and technical standpoint.

Throughout Ms. Corbett's career, she has focused on managing teams and conducting environmental impact assessments, conducting due diligence reviews, facilitating fatal flaw analyses, and serving as a key permitting and compliance specialist. She has over 14 years of experience with wind projects with specialization in local and state siting permitting and land use planning, particularly in relation to sensitive resources.

PROJECT EXPERIENCE *Additional Experience Available Upon Request*

Wind and Solar Facility Permitting Consultant
Ms. Corbett has managed many projects and portfolios for large U.S. based wind and solar developers. She has conducted permit and regulatory compliance reviews for projects located throughout the country, in many states and various countries. Work includes, but is not limited to, projects in Minnesota, Maryland, Texas, South Dakota, North Dakota, Florida, California, Idaho, Oregon, Utah, Colorado, and Michigan.

As Wind and Solar Facility Permitting Consultant, Ms. Corbett regularly does the following tasks.

- Manages teams of renewable energy and environmental resource specialists to identify potential permit requirements and potential environmental constraints for each project.
- Develops and executes permitting schedules for large, complex projects from development through construction to ensure compliance with permit and regulatory requirements.
- Consults with the U.S. Fish and Wildlife Service, and state agencies on potential project recommendations related to sensitive species, permit requirements and pre- and post-construction wildlife monitoring requirements.
- Consults with State Historic Preservation Offices regarding potential cultural and historic resources issues.
- Manages federal, state and local permitting coordination and permit application development.
- Prepares and implements compliance plans for construction.
- Provides due diligence review on renewable energy projects and portfolios.

PROJECT EXPERIENCE *Additional Experience Available Upon Request*

Lake Benton II Wind | Minnesota
Ms. Corbett served as the environmental and permitting project consultant for the decommissioning of the former wind project and the development and construction phases of the replacement 100-MW wind facility. She oversaw the development of a Public Utilities Commission state siting permit application and provided the management and execution of natural resources studies necessary to support various permit application submittals. Ms. Corbett also managed the environmental compliance oversight support during construction and facilitated tribal coordination during development and construction of the project.

Buffalo Ridge Wind | Minnesota
Ms. Corbett served as the environmental and permitting project consultant for the development of a 100-MW wind facility in rural Southwest Minnesota. Ms. Corbett provided oversight of the Public Utilities Commission state siting permit application, execution of desktop and field studies necessary for the project, and agency coordination.

Stagecoach Solar | Colorado
Ms. Corbett served as the Environmental and Permitting Project Manager. She provided the management and execution of environmental studies and permitting for a 300 MW utility scale solar project in Pueblo, Colorado. She managed the development of state and local permitting efforts and provided comprehensive support related to wildlife agency coordination and strategy, public outreach, environmental due diligence, application development and permit tracking. Ms. Corbett supported the coordination of design, communications, development and construction to verify sensitive resources were avoided and to address permitting requirements.

Michigan Wind 3 | Michigan
Ms. Corbett provided the strategy, management and execution of environmental studies and permitting for the Michigan Wind 3 Project in rural Michigan. She provided comprehensive support related to wildlife agency coordination and strategy, local permitting stakeholder engagement, environmental due diligence, application development and permit tracking. Ms. Corbett supported the coordination of design, communications, development and construction to verify sensitive resources were avoided and to address permitting requirements.

Phase I Environmental Site Assessments for Renewable Portfolios
Ms. Corbett coordinated the preparation of over 60 Phase I ESAs for wind and solar projects throughout the United States. She supported clients in developing Phase I ESA portfolios and coordination during financing.

Wind and Solar Due Diligence Review
Ms. Corbett provided the review of pre-construction and operational wind projects, solar projects, and renewable portfolios for over 50 projects to evaluate financing viability of projects from an environmental and permitting viewpoint. She identified gaps, potential fatal flaws, and

non-compliances to advise clients on what tasks remained in order to have a valid permitting record for a project. Ms. Corbett facilitated coordination with developers, regulating agencies, and financial teams to navigate appropriate measures for environmental and permitting diligence activities.

TransWest Express, 1,000+ mile HVDC Transmission Line Routing Evaluation | **Western US**
Ms. Corbett coordinated a GIS modeling analysis and route evaluation and supported the siting report for the TransWest Express Project which included analysis of alternatives for over 1,000 miles of HVDC transmission line spanning through 4 western states from Wyoming to the Las Vegas area. Ms. Corbett evaluated BLM land use management plans, particularly related to the management of visual resources, within the project study area. Ms. Corbett also supported the development of the public outreach plan and the preparation for scoping meetings.

Carbon Capture Feasibility Analysis, 60-mile Pipeline Routing Analysis | **South Dakota and North Dakota**
Ms. Corbett served as the lead analyst and author for a project consisting of an opportunity, constraints, siting and routing analysis for a 250-mile carbon dioxide (CO2) pipeline, a 60-mile natural gas pipeline, and a carbon capture energy conversion facility modification alternative. Ms. Corbett acted as key liaison between the client, the engineer, and regulatory agencies.

NextGen Project, Coal Fired Generation Facility and 230/345 –kV Transmission Lines| **South Dakota**
Ms. Corbett supported the development of phases of the Environmental Evaluation and South Dakota Public Utilities Commission state siting permit for proposed development of a 700-MW coal-fired generation facility and associated 230/345-kV transmission lines and water pipeline in South Dakota. Ms. Corbett provided coordination with the client and Western Area Power Administration.

Deer Creek Station, Natural Gas Facility | **High Plains**
Ms. Corbett coordinated the obtaining of two state siting permits from the South Dakota Public Utility Commission for a 350 MW combined cycle combustion turbine facility, a natural gas pipeline, a transmission line, and a water pipeline and well system. She supported the development of the state siting permits as well as two land use permits, stormwater and erosion control permit, Army Corps of Engineer permits, and provided technical review and coordination in support of the NEPA EIS.

San Luis Valley, Calumet to Comanche 120-mile 230-kV Transmission Line Routing Evaluation | **Colorado**
Ms. Corbett assisted in route evaluation, siting report development, and public involvement for the routing and environmental analysis of over 120 miles of proposed transmission line development in southern Colorado and provided oversight and coordination of the Alternatives Evaluation/ Macro Corridor Study and subsequent route refinement process to identify a preferred route and feasible alternative routes to be evaluated in the Rural Utility Service EIS federal environmental review process.

Southern Transmission, 1,000+ mile HVDC Transmission Line Best Management Practices Consulting | **South America**
Ms. Corbett oversaw the development of an international standards report to provide reference materials on environmental best management practices, industry standards and typical methodologies to support the development of a World Bank funded proposed HVDC transmission line spanning over 1,000 miles in South America.

Lake Powell Pipeline Project, 150-mile linear ROW | **Desert Southwest**
Ms. Corbett was a NEPA task manager and analytical lead for the Land Uses and Conflicts Study and quality control lead for permitting for the proposed development of 150+ miles of water pipeline, 30+ miles of transmission line, hydroelectric power generation, and water intake and pumping stations. She identified key land use plan and recreation impacts. Ms. Corbett supported the development of public outreach plans and stakeholder scoping meetings and served as a liaison with BLM, FERC, USFWS and U.S. Army Corps of Engineers.

Permitting and Siting Study | **Los Angeles County, California**
Ms. Corbett managed the biology, cultural, permitting, zoning, and Phase I Environmental Site Assessment due diligence services to identify potential environmental constraints and permitting requirements applicable for a proposed 300 MW PV solar facility and associated 25-mile transmission line in rural Los Angeles County, California. She coordinated agency meetings and developed a permitting strategy to comply with Los Angeles County, CEQA and other local, state and federal requirements.

UNITED STATES DEPARTMENT OF COMMERCE
National Telecommunications and Information Administration
Washington, D.C. 20230

December 6, 2023

Joshua Burdick,
Senior Wind Resource Modeling Analyst
NextEra Resources
700 Universe Blvd.
Juno Beach, FL 33408

Re: Dodge County Wind Energy Project Rev. 2: Dodge & Steele, MN

Dear Mr. Burdick,

In response to your request on October 5, 2023, the National Telecommunications and Information Administration provided to the federal agencies represented in the Interdepartment Radio Advisory Committee (IRAC) the plans for the Dodge County Wind Energy Project Revision 2 located in Dodge and Steele Counties, Minnesota.

After a 45+ day period of review, *no reviewing agencies*, had concerning issues with turbine placement in this area.

Commerce has completed our review of the subject wind project and found it is over 195 km ENE of the Riverton, WY NEXRAD. Based upon distance and terrain this project appears to be radar neutral. No further contact with the developer requested at this time.

While the other IRAC agencies did not identify any concerns regarding radio frequency blockage, this does not eliminate the need for the wind energy facilities to meet any other requirements specified by law related to these agencies. For example, this review by the IRAC does not eliminate any need that may exist to coordinate with the Federal Aviation Administration concerning flight obstruction.

Thank you for the opportunity to review this proposal.

Sincerely,

JOHN MCFALL Digitally signed by JOHN MCFALL
Date: 2023.12.07 14:28:04 -05'00'

John R. McFall
Deputy Chief, Spectrum Services Division
Office of Spectrum Management

Post-Application Filing - Dodge Wind Agency Correspondence Log 2022-2023

Date	Materials / Information Shared	Communication Type (Letter/Email/Phone Call/Meeting)	From	To	Key Discussion Points / Decisions Made (Context Summary)
STATE- MINNESOTA					
MN Board of Soil & Water Resources					
11/13/2023		Conference Call	Burns & McDonnell- Tyler Beemer	MN Board of Soil & Water Resources- Alyssa Core MNDNR- Todd Piepho MNDNR- Jeanine Vorland Dodge County- Lauren Cornelius NEER- Jake Mcqueen NEER- Cameron Clay Atwell- Maureen O'Shea-Stone Atwell- Kimberly Parker Burns & McDonnell- Sam Weaver	Additional pre-application meeting regarding wetland permitting
MNDNR					
3/15/2022	KMZ	Email	NextEra - Bridgette Valeron	MNDNR - Cynthia Warzecha MNDNR - Joanne Boettcher	Bridgette sent MNDNR a KMZ of the array, t-line route and project boundary for their review.
3/25/2022	KMZ, Shapefiles and PDF Map	Email	NextEra - Kim Wells	MNDNR - Cynthia Warzecha MNDNR - Joanne Boettcher	Kim sent MNDNR a KMZ, shapefiles and PDF map of the array, t-line route and project boundary for their review.
3/28/2022	KMZ, Shapefiles and PDF Map	Email	MNDNR - Cynthia Warzecha	NextEra - Kim Wells	Cynthia acknowledge receipt of files and confirmed that they are what is needed for review.
7/10/2023	NHIS Request cover letter and KMZ	Email	Atwell- Kimberly Parker	MNDNR - Lisa Joyal MNDNR general review inbox	Atwell requesting confirmation of the NHIS review conducted under license agreement (#2022-007).
11/13/2023		Conference Call	Burns & McDonnell- Tyler Beemer	MN Board of Soil & Water Resources- Alyssa Core MNDNR- Todd Piepho MNDNR- Jeanine Vorland Dodge County- Lauren Cornelius NEER- Jake Mcqueen NEER- Cameron Clay Atwell- Maureen O'Shea-Stone Atwell- Kimberly Parker Burns & McDonnell- Sam Weaver	Additional pre-application meeting regarding wetland permitting.
12/5/2023	NHIS Letter	Letter	MNDNR- James Drake, Natural Heritage Review Specialist	WEST- Eric Ost	MNDNR provided the Minnesota Natural Heritage Information System (NHIS) letter.
MNDOT					
5/22/2023		Letter	MnDOT - Stacy Kotch Egstad	Minnesota Public Utilities Commission- Consumer Affairs Office	Exclusively as a pilot project, MnDOT has determined that Applicant's Dodge County Wind 161kV Gen-Tie1 line can be accommodated within right-of-way under our purview, to the extent possible. This accommodation will have the same level of scrutiny and expected Utility Accommodation Policy adherence as any other registered Public Utility within the state seeking utility placement within MnDOT rights-of-way. This determination has the potential to mitigate, minimize and aid in avoiding potential impacts of routes currently on the record.
6/9/2023		Letter	MnDOT - Stacy Kotch Egstad	Minnesota Public Utilities Commission- Executive Secretary- Mr. Will Seuffert	MnDOT response to the Advisory Task Force (ATF) Report
9/19/2023		Meeting	NEER- Danell Herzig	NEER- Danell Herzig NEER- Jake Mcqueen MnDOT - Stacy Kotch Egstad Mark R. Johnson T.O. Nasby Todd M Gardner Jeff Kopocis Atwell- Maureen O'Shea-Stone Bailey Brown Olu Oladunni Sean A McAdam Anna Galanis Thomas Koegel	Discuss MnDOT permitting
9/21/2023	Forms	Email	MnDOT - Stacy Kotch Egstad	NEER- Danell Herzig NEER- Jake Mcqueen	Provided documents requested during the 9/19/2023 meeting. Provided MnDOT Continuing Utility Bond Form, MnDOT Utility ENM Request for Information, and MnDOT Utility Accommodation on Trunk Highway Right of Way (Form 2525).

Date	Materials / Information Shared	Communication Type (Letter/Email/Phone Call/Meeting)	From	To	Key Discussion Points / Decisions Made (Context Summary)
10/12/2023		Meeting	Atwell- Maureen O'Shea-Stone	Atwell- Maureen O'Shea-Stone Atwell- Tara Corbett Atwell- Kimberly Parker NEER- Jake Mcqueen MnDOT - Stacy Kotch Egstad	Environmental Checklist Q&A. Atwell provided meeting notes for review after the meeting.
10/13/2023		Email	MnDOT - Stacy Kotch Egstad	Atwell- Maureen O'Shea-Stone Atwell- Tara Corbett Atwell- Kimberly Parker Atwell- Samantha Callahan NEER- Jake Mcqueen MnDOT- Paul Hartzheim	MnDOT reviewed the meeting notes and made comments/edits.
10/13/2023		Email	MnDOT - Stacy Kotch Egstad	Atwell- Maureen O'Shea-Stone Atwell- Tara Corbett Atwell- Kimberly Parker NEER- Jake Mcqueen MnDOT- Paul Hartzheim MnDOT- Elizabeth Brown	Answers on outstanding delineation questions after the 10/12/23 meeting.
10/13/2023		Email	MnDOT - Stacy Kotch Egstad	Atwell- Maureen O'Shea-Stone Atwell- Tara Corbett Atwell- Kimberly Parker NEER- Jake Mcqueen MnDOT- Paul Hartzheim	Stacy provided MnDOTs response to questions regarding the Delineation Report, Vegetation Management/Pesticide/Revegetation Plan, Unanticipated Discovery Plan, and Invasive Species Prevention Plan
11/16/2023		Email	MnDOT - Stacy Kotch Egstad	NEER- Jake Mcqueen NEER- Danell Herzig	MnDOT checking in on the submittal of the MnDOT Utility Early Notification Memo (ENM).
11/17/2023		Email	NEER- Jake Mcqueen	MnDOT - Stacy Kotch Egstad NEER- Danell Herzig NEER- Clay Cameron Atwell- Kimberly Parker Atwell- Maureen O'Shea Stone	NEER Response to MnDOT ENM Check in. Environmental map package being finalized and the planned submittal is Monday, November 20th.
11/17/2023	Updated Utility ENM and Checklist	Email	MnDOT - Stacy Kotch Egstad	NEER -Jake Mcqueen NEER- Danell Herzig NEER- Clay Cameron Atwell- Kimberly Parker Atwell- Maureen O'Shea Stone	MnDOT provided updated Utility ENM and Checklist.
11/20/2023		Email	NEER- Jake Mcqueen	MnDOT - Stacy Kotch Egstad NEER- Danell Herzig NEER- Clay Cameron Atwell- Kimberly Parker Atwell- Maureen O'Shea Stone	NEER mapping questions to MnDOT after reviewing updated ENM and Checklist
11/21/2023		Email	MnDOT - Stacy Kotch Egstad	NEER -Jake Mcqueen NEER- Danell Herzig NEER- Clay Cameron Atwell- Kimberly Parker Atwell- Maureen O'Shea Stone	MnDOT response to NEER mapping questions and extension of the completed ENM and checklist deadline for GIS items to December 6, 2023. Delivery of non-GIS items should be provided any time prior to or with the MnDOT utility permit application submissions as they will be needed for final permit review.
11/27/2023		Email	Atwell- Maureen O'Shea Stone	MnDOT - Stacy Kotch Egstad NEER -Jake Mcqueen Atwell- Kimberly Parker Atwell- Samantha Callahan Atwell- Lauren Federsel	Erodible Soils and Steep Slopes criteria questions to MnDOT in order to support the GIS portion of the Utility ENM Supplemental Information Checklist
11/28/2023		Email	MnDOT - Stacy Kotch Egstad	Atwell- Maureen O'Shea Stone NEER -Jake Mcqueen Atwell- Kimberly Parker Atwell- Samantha Callahan Atwell- Lauren Federsel	MnDOT provided criteria for Erodible Soils and Steep Slopes. Recommended that we use Class III soils for highly erodible, and 40% slopes for steep slopes.
12/4/2023		Meeting	Atwell- Maureen O'Shea Stone	MnDOT - Stacy Kotch Egstad MnDOT- Paul Hartzheim NEER -Jake Mcqueen Atwell- Kimberly Parker	MnDOT UAP meeting, ENM, and Utility ENM Supplemental Checklist discussion. Discussed timelines and deliverables.

Date	Materials / Information Shared	Communication Type (Letter/Email/Phone Call/Meeting)	From	To	Key Discussion Points / Decisions Made (Context Summary)
12/6/2023	Early Notification Memo (ENM), Supplemental Checklist (including maps and narrative), GIS data including KMZ, shapefile, and summary data tables in Excel	Email	Atwell- Maureen O'Shea Stone	MnDOT - Stacy Kotch Egstad MnDOT- Paul Hartzheim NEER -Jake Mcqueen Atwell- Kimberly Parker Atwell- Samantha Callahan Atwell- Tara Corbett	ENM and Supplemental Checklist Submittal. Documents were uploaded to ShareFile site.
12/7/2023		Email	MnDOT - Stacy Kotch Egstad	Atwell- Maureen O'Shea Stone MnDOT- Paul Hartzheim NEER -Jake Mcqueen Atwell- Kimberly Parker Atwell- Samantha Callahan Atwell- Tara Corbett	MnDOT confirmed receipt of the ENM and Supplemental checklist submittal. Will reach out with any questions.
FEDERAL					
NTIA					
12/7/2023	NTIA Response Letter	Email	NTIA- Felicia Walker	NEER- Joshua Burdick	Final NTIA Response Letter. Responses were received from the Department of Agriculture, Coast Guard, Department of Commerce, Homeland Security, Department of the Interior, Department of Justice, and Department of the Navy stating No Harmful Interference Anticipated (NHIA)
DODGE COUNTY (MN)					
10/16/2023		Letter	Atwell- Anne Polakowski Atwell- Kristen Baumgardner	Dodge County- Jim Elmquist	Notice to Dodge County of the ADLS Tower. As part of the FCC licensing process Atwell reached out to Dodge County to solicit input on whether or not the proposed tower location is likely to affect districts, sites, buildings, or structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
10/24/2023		Email	Dodge County- Lauren Cornelius	Atwell- Anne Polakowski	Dodge County response to the letter regarding the proposed Aircraft Detection Lighting System. Dodge County requested additional information regarding the proposal, and mentioned this type of structure will need to go through the zoning process for a Conditional Use Permit
11/13/2023		Email	Atwell- Maureen O'Shea Stone	Dodge County- Lauren Cornelius	Response to 10/24/2023 email. Provided additional context and statute references for the ADLS tower, and stated that more information from the ADLS towers is provided in the Site Permit Application. It is Atwell's understanding that the Site Permit will be the only permit required to install the ADLS tower, as it is necessary to the project's operation and is required by law.
11/13/2023		Conference Call	Burns & McDonnell- Tyler Beemer	Dodge County- Lauren Cornelius MN Board of Soil & Water Resources- Alyssa Core MNDNR- Todd Piepho MNDNR- Jeanine Vorland NEER- Jake Mcqueen NEER- Cameron Clay Atwell- Maureen O'Shea-Stone Atwell- Kimberly Parker Burns & McDonnell- Sam Weaver	Additional pre-application meeting regarding wetland permitting
12/7/2023		Meeting	Burns & McDonnell- Tyler Beemer	Dodge County- Lauren Cornelius Dodge County- Cathrine Grondin NEER- Jake Mcqueen Atwell- Maureen O'Shea-Stone Atwell- Kimberly Parker	Floodplain Compliance meeting. Reviewed current project areas overlapping with current FEMA floodplain areas.
STEELE COUNTY (MN)					
10/16/2023		Letter	Atwell- Anne Polakowski Atwell- Kristen Baumgardner	Steele County- Scott Goldberg	Notice to Steele County of the ADLS Tower. As part of the FCC licensing process Atwell reached out to Steele County to solicit input on whether or not the proposed tower location is likely to affect districts, sites, buildings, or structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
10/26/2023		Letter	Steele County Planning & Zoning- Dale Oolman- Planning & Zoning Director	Atwell- Anne Polakowski	Steele County Response to ADLS Tower notification. Steele County stated that they are unaware of any affects the proposed project will have on cultural, archaeological, or historical places. It was stated that a Conditional Use Permit (CUP) would be required by the Steele County Zoning Ordinance.
11/13/2023		Email	Atwell- Maureen O'Shea Stone	Steele County Planning & Zoning- Dale Oolman- Planning & Zoning Director	Response to 10/26/202 letter. Provided additional context and statute references for the ADLS tower, and stated that more information from the ADLS towers is provided in the Site Permit Application. It is Atwell's understanding that the Site Permit will be the only permit required to install the ADLS tower, as it is necessary to the project's operation and is required by law.

DEPARTMENT OF NATURAL RESOURCES

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

December 5, 2023
Correspondence # MCE 2023-00564

Eric Ost
Western EcoSystems Technology (WEST), Inc.

RE: Natural Heritage Review of the proposed Dodge County Wind Transmission Project,

County	Township (N)	Range (W)	Sections
Dodge	106	18	13-15
Dodge	106	17	17-18, 20, 28-29, 33-36
Dodge	105	17	1-3, 9-12, 15-16, 21, 25, 28, 33-34, 36
Dodge	105	16	6-7, 18-19, 30-31
Mower	104	17	9-10, 13-15
Mower	104	16	13-15, 17-18, 20-22
Mower	104	15	18-19

Dear Eric Ost,

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 a Site of *Moderate* Biodiversity Significance in T104N R17W Section 3 and four Sites ranked as *Below* in T105N R17W Sections 9 and 16, T105N R17W Sections 33 and 34, and T104N R16W Section 24. These are all very close to or crossed by the proposed project. 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. Sites ranked as

Below were considered 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.

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.

State-listed Species

Several rare plant species have been identified near the proposed project area. These are wild quinine (*Parthenium integrifolium*) and western prairie fringed orchid (*Platanthera praeclara*), state-listed as endangered, tuberous Indian plantain (*Arnoglossum plantagineum*) and Sullivant's milkweed (*Asclepias sullivantii*), state-listed as threatened, and rattlesnake master (*Eryngium yuccifolium*) and yellow-fruit sedge (*Carex annectens*), state-listed as species of special concern, have all been documented near the proposed project area. All of these species are found in native prairie. In addition, edible valerian (*Valeriana edulis* var. *ciliata*), state-listed as threatened, and small white lady's-slipper (*Cypripedium candidum*) and wild sweetwilliam (*Phlox maculata*), state-listed as species of special concern, have been found nearby. These plants prefer wet prairies, sedge meadows, and fens. 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 endangered or threatened plants or animals, including their parts or seeds, without a permit. **As these species are typically found in native prairie and fen remnants, avoid impacts to MBS Sites along the route, including those labelled as *Below* or *Areas with Potential Local Conservation Value*. This avoidance does not include road rights-of-way with previously disturbed soil.** MBS Sites of Biodiversity Significance can be viewed using the Minnesota Conservation Explorer or their GIS shapefiles can be downloaded from the MN Geospatial Commons.

If avoidance is not feasible, a qualified surveyor is required to conduct a habitat assessment in any undisturbed areas within MBS Sites that will be impacted by the proposed project. If potential habitat for these species is documented and those areas cannot be avoided, a botanical survey will be required. Surveys must be conducted by a qualified surveyor and follow the standards contained in the Rare Species Survey Process and Rare Plant Guidance. Visit the Natural Heritage Review page for a list of certified surveyors and more information on this process. Project planning should take into account that any botanical survey needs to be conducted during the appropriate time of the year, which may be limited. Please consult with

the NH Review Team at Reports.NHIS@state.mn.us if you have any questions regarding this process.

- The loggerhead shrike (*Lanius ludovicianus*), a state-listed endangered bird, has been documented in the vicinity of the project site. Loggerhead shrikes use grasslands that contain short grass and scattered perching sites such as hedgerows, shrubs, or small trees. They can be found in native prairie, pastures, shelterbelts, old fields or orchards, cemeteries, grassy roadsides, and farmyards. 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 endangered or threatened plants or animals, including their parts or seeds, without a permit. **Given the potential for this species to be found in the vicinity of the project, tree and shrub removal is required to be avoided during the breeding season, April through July.** Contact me if any tree or shrub removal will occur during the breeding season, as the DNR may request that a survey for active nests be conducted prior to construction.

- Bell's vireo (*Vireo bellii*), a state-listed bird species of special concern, has been documented in the vicinity of the project. In Minnesota, Bell's vireo prefers shrub thickets within or bordering open habitats such as grasslands or wetlands. This bird suspends its nests from forks of low branches of small trees or shrubs. **If feasible, avoid tree & shrub removal from May 15th through August 15th to avoid disturbance of nesting birds.**

- The Natural Heritage Information System (NHIS) tracks bat roost trees and hibernacula plus some acoustic data, but this information is not exhaustive. Even if there are no bat records listed nearby, all seven of Minnesota's bats, including the federally endangered northern long-eared bat (*Myotis septentrionalis*), can be found throughout Minnesota. During the active season (approximately April-November) bats roost underneath bark, in cavities, or in crevices of both live and dead trees. Tree removal can negatively impact bats by destroying roosting habitat, especially during the pup rearing season when females are forming maternity roosting colonies and the pups cannot yet fly. **To minimize these impacts, the DNR recommends that tree removal be avoided from June 1 through August 15.**

- 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

- 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, Cynthia Warzecha