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Prairie & Northern Region
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ECCC File: 4194-10-4/7566

IAAC Registry: 83231

March 16, 2022

via email at: hilary.hunter@sac-isc.gc.ca

Hilary Hunter
Sr. Environmental Officer
Indigenous Services Canada
Saskatchewan Region
1827 Albert Street, Regina, SK S4P 2S9

Dear Hilary Hunter,

RE: 83231– Environment and Climate Change Canada's (ECCC) comments for the proposed Bekevar Wind Energy Project in Saskatchewan

Environment and Climate Change Canada (ECCC) has reviewed the documents provided by Indigenous Services Canada (ISC) for the Bekevar Wind Energy Project ('the Project') proposed by Bekevar Wind L.P. ('the Proponent'). This review is conducted as per S. 85 of the *Impact Assessment Act* (IAA).

The Project includes the construction and operation of a net 200MW wind power project south and southeast of Kipling, Saskatchewan. A portion of the Project will be located on three quarter sections of Cowessess First Nation IR No.73 reserve lands (NW 04-13-05-2, SW 04-13-05-2, SE 04-13-05-2). The portion of the Project located on federal lands includes cultivated open agricultural lands, with tree stands, wetlands and ponds interspersed.

Project components that are proposed to be sited on federal land include between one and three wind turbines, with associated access roads and an underground medium-voltage collector system that will connect the turbines to a main substation. Temporary infrastructure would include construction access roads to turbine sites (30 meter wide right of way for disturbance) and wind turbine laydown areas (approximately 1 hectare) where cranes and other equipment would access the turbine site area and install the turbine foundation and components. Permanent infrastructure would include turbine foundations and turbines, access roads (5 metres in width) to access the turbines during operations, and underground medium-voltage cabling that would be trenched or plowed in the fields at a depth to enable future farming after construction.

The following comments are based on consideration of ECCC's mandate pursuant to the *Canadian Environmental Protection Act (CEPA)*, *Migratory Birds Convention Act* (MBCA), the *Species at Risk Act* (SARA), the *Fisheries Act* and their relevant regulations.

Identification of Potential Impacts to Wildlife Species

The Project is located within the Aspen Parkland ecoregion of Saskatchewan and the central flyway, one of four major biological flyways in North America and a migratory route for northward flight in spring and southward flight in fall for many migratory species. It includes habitat features (e.g., a mosaic of wetlands, small tree stands, and cultivated lands) that may support breeding and staging or stopover use by migratory birds and other wildlife. While there is no designated or proposed Critical Habitat within the federal lands contained in the Project boundaries, the Project is located within the ranges of a number of Species at Risk (SAR; see Appendix 1) and the migratory corridor used by Whooping Crane (*Grus Americana,* Endangered)[1]. Several of the SAR and migratory birds identified by the Proponent in the Project area are at particularly high risk for interacting with Project infrastructure during operation.

The draft provincial Environmental Impact Statement (EIS) provided information on the general use of the area by migratory birds and SAR through desktop screening as well as field studies in 2021. Baseline data was collected at two amphibian survey stations and two breeding bird survey stations adjacent to the federal lands, and at bat acoustic survey stations, the nearest of which is located 1.5 km to the east (from turbine T19) and 2.5 km to the southeast (from turbine T8). Aside from one grassland breeding bird survey station, no targeted SAR surveys are described within the specific federal lands.

ECCC advises that the Saskatchewan Ministry of Environment may be able to provide additional information regarding wildlife values of the general Project area, and confirm the sufficiency of baseline information for the purposes of the provincial environmental assessment review of the Project as a whole.

Additional ECCC guidance on the information needed to support an environmental assessment of wind project effects to wildlife can be found in Wind turbines and birds : a guidance document for environmental assessment : CW66-363/2007E-PDF - Government of Canada Publications - Canada.ca

Construction

Wetlands

The extent of Project construction effects to wetlands on federal land is not specifically detailed in the Project information that was provided to ECCC for review. The draft provincial EIS describes that the larger overall Project has the potential to directly affect up to 2.33 hectares of wetland habitat in the short-term, with 0.1 hectares of this wetland habitat to be permanently removed through siting of surficial infrastructure (e.g., access roads, turbine pad, substation, and operations and maintenance building). Whether any of these effects will occur on the federal lands is uncertain. Mapping for the federal lands presented in the draft EIS (see Map 5a) identifies wetlands including seasonal, semi-permanent and permanent wetlands within 500 metres of Project components (access road, turbine bases), and the access road

[1] Map of whooping crane migration corridor - ScienceBase-Catalog available at https://www.sciencebase.gov/catalog/item/5a314a72e4b08e6a89d707e0

connecting T8 and T19 appears to approach and potentially cross a Class IV semi-permanent wetland.

ECCC advises ISC to confirm with the Proponent whether there will be any anticipated changes in natural habitats, including wetlands, during construction activities and if all general mitigation measure commitments will be applied to works planned on federal lands. General mitigation measures described by the Proponent in the EIS that may be applicable, include:

- low-impact installation techniques, such as working in frozen conditions, plough-in installations, and/or directional drilling where underground power (collection) installation overlaps semi-permanent wetlands.
- use of buffers between natural habitats and stockpiles, refueling and storage areas;
- installation of erosion and sediment control measures near natural habitats and scheduling of ground work to avoid periods of wet soils and high runoff;
- avoidance of herbicide, pesticide and chemical applications on or adjacent to natural habitats;
- revegetation of temporary disturbances to natural habitats and soil handling to preserve natural seedbanks;
- controlling water discharges, grading to maintain hydrologic connectivity, and restoring natural drainage patterns.

ECCC advises that any anticipated loss of wetlands must be offset to ensure no net loss of wetlands (including wetland functions) on federal lands occurs, in accordance with conservation allowances under the federal Policy on Wetland Conservation[2]. As part of evaluating effects to wetland functions and potential offsetting, ISC should seek additional clarification from the Proponent to determine how much wetland loss and/or alteration will occur on federal lands.

The wetland functions overview guidance by Hanson et al. (2008) titled 'Wetland Ecological Functions Assessment: An Overview of Approaches'[3] should be reviewed before undertaking a wetland functions assessment. It is important to be aware, however, that this document offers guidance, but is not in and of itself an approach to conducting wetland functions.

The mitigation hierarchy should be used to achieve no net loss of wetland functions. ECCC recommends the hierarchy be applied in the following order, from most to least preferred:

(1) Avoidance of impacts;

(2) Minimization of unavoidable impacts; and,

(3) Compensation for unavoidable impacts.

For all impacts that cannot be avoided or minimized, ECCC recommends that a Wetland Compensation Plan (WCP) be requested of the Proponent in order to compensate for unavoidable impacts. Any wetlands compensation or offset plan should:

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[2] https://www.canada.ca/en/environment-climate-change/services/sustainable-development/publications/operational-framework-use-conservation-allowances.html
[3] http://publications.gc.ca/site/archivee-archived.html?url=http://publications.gc.ca/collections/collection_2010/ec/CW69-5-497-eng.pdf

- clearly indicate the location and total area of each type of wetland for which the residual effects should be mitigated by compensation measures;
- favour the restoration of drained or altered natural wetlands of the same type and function as those affected by the Project. Wetland restoration is preferable to wetland enhancement, both of which are preferable to the creation of new wetlands;
- demonstrate that wetland functions can be replaced by the proposed compensation activities;
- indicate where it is not possible to compensate for the loss of functions in cases where wetlands are unique, perform habitat functions that ensure the survival of a large proportion of migratory birds, or provide habitat for SAR; and take this information into consideration when developing compensation measures;
- use a minimum ratio of 2:1 for the area of wetlands to be restored or created, versus the original area of wetlands affected. A higher compensation ratio is recommended for wetland types where compensation is more difficult or where there is uncertainty about the success of the compensation measures. The choice of ratio for wetland compensation needs to be justified;
- compensate lost wetland functions on-site if site conditions are suitable for wetland functions. If this is not possible, the preference is to compensate within the same watershed, and then within the same ecosystem as the one where functions are affected;
- minimize the delay between the time the adverse effects occur and the time habitat and functions are restored; and
- explain how vegetation removals, as well as soil and peat excavation activities will be managed for reclamation of disturbed wetlands (e.g. methods, conditions and timing of stockpiling).

For guidance regarding wetland offsetting, the Proponent is referred to ECCC's Operational Framework for Use of Conservation Allowances[4].

Migratory Birds and Species at Risk

The Proponent identified several wildlife SAR that may be impacted on the federal lands portion of the Project: Common Nighthawk (*Chordeiles minor*; Threatened), Bobolink (*Dolichonyx oryzivorus*, Threatened), Barn Swallow (*Hirundo rustica*, Threatened), Red-headed Woodpecker (*Melanerpes cephalus,* Endangered), and Little Brown Myotis (*Myotis lucifugus*, Endangered). For these species and their preferred habitats, the Proponent assessed construction effects on federal lands as negligible because Project changes to non-cultivated habitats are expected to be minor. Two amphibian SAR were also described by the Proponent in the general Project area and may have potential to use wetland and wetland-adjacent habitats found on the federal lands: Northern Leopard Frog (*Lithobates pipiens*, Special concern) and Western Tiger Salamander (*Ambystoma mavortium*, Special Concern).

While Project impacts to natural habitats on federal lands during construction may be minimal with the planned avoidance of wetlands and trees/shrubs, some migratory birds and bird SAR may still use features of the site (e.g., existing structures, exposed soils and stockpiles, or

[4] http://www.ec.gc.ca/ee-ea/default.asp?lang=En&n=DAB7DD13-1&printfullpage=true

adjacent vegetated areas, seasonal wetlands, ponds). Construction activities are proposed from July to December 2022 (Phase 1) and May to December 2023 (Phase 2), during periods of the year when nesting birds, including birds protected under the MBCA and SAR may be using habitats in and near the construction footprint. ECCC advises that any habitat destruction activities (e.g., vegetation clearing, mowing, earth movement, flooding, draining, construction, etc.) or high disturbance activities (e.g., drilling, blasting) in areas attractive to migratory birds carry a particularly high risk of disturbing or destroying migratory bird nests or eggs between mid April - late August. The mitigation measures outlined by the Proponent in the draft provincial EIS describe reliance on breeding bird nest searches prior to construction activities in or within a distance of 10 metres of non-cultivated habitats scheduled between April 15 and August 16 "to ensure compliance with the MBCA" (Table 7, Appended Environmental Management Plan, draft provincial EIS) and ECCC advises that additional mitigation measures may be necessary to support the Proponent's plan to avoid harm to migratory birds on federal lands.

Regarding avoidance of potential effects to SAR amphibians, road construction and excavation activities during construction introduce the potential for interaction with SAR amphibians that may use wetlands, ponds and surrounding terrestrial habitats on federal lands for breeding and overwintering habitat. The Proponent's Environmental Management Plan (EIS, Appendix X) describes a plan for an additional assessment of potential effects to amphibians prior to any construction activity occurring in, or within, 10 metres of a non-cultivated wetland between March 15 and October 31. ECCC recommends, prior to each seasonally scheduled Project activity:

1. Determining whether there are SAR present in the vicinity of construction and disturbance areas that may be sensitive to activities like ground disturbance, overland flooding from temporary water diversion, vegetation control, or access road maintenance during breeding and overwintering periods (e.g., Northern Leopard Frog, Western Tiger Salamander);

2. Employing key mitigation measures listed in the draft provincial EIS and provincial guidance documents to avoid and lessen each environmental effect to SAR (e.g., construction monitoring, additional use of species-specific setbacks or buffers);

3. Ensuring monitoring of effectiveness of mitigation measures to avoid effects to SAR, including construction and post-construction monitoring.

Additionally, if any Project areas may be suitable fossorial overwintering habitat for these species, appropriately-timed surveys should be undertaken to determine occupancy prior to commencing ground disturbance (please refer to the appropriate COSEWIC reports and Management Plans on the SARA Registry[5]. If suitable breeding or overwintering habitat exists within the Project area, mitigation measures should also be proposed to avoid harm to individuals and maintain those biophysical characteristics during the Project activities.

The Proponent has provided limited information regarding tree sizes and Project construction-related changes to any of the wooded areas identified on the federal lands. Should any tree removal be proposed during construction, ECCC advises that trees should be evaluated for their potential to provide maternal roosting structures for the bat SAR that may use the Project

[5] https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html

area (Little Brown Myotis). The Proponent is encouraged to consult the Recovery Strategy for Little Brown Myotis[6]. Permitting under the SARA may be required should Project activities have potential to destroy maternal roosting habitat. Any tree removal anticipated by the Project should be discussed with ECCC Canadian Wildlife Service by contacting sarapermitPNR@ec.gc.ca.

Operation

Migratory Birds and Species at Risk

Following construction, operational activities would be year round, including periods of the year when migratory birds and volant SAR may be using flight space around the turbine towers, hubs and blades for short-distance travel between habitats and stops during longer migrations. While migratory birds may be using the agricultural fields and isolated wetland pockets in the area of the Project in relatively low numbers for staging, foraging, and resting during spring and fall migrations, the installation and operation of wind turbines are predicted to increase mortality risks to bird and bats.

Risk of collisions by birds and bats with turbines and the resulting direct mortality of individuals is acknowledged by the Proponent as an environmental effect likely to occur during the operating life of the Project. Based on industry records for wind projects drawn largely from Ontario (BSC et al 2018[7]), the Proponent predicts that the operation of the Project has the potential to result in an estimated:

- 2.15 bird mortalities/turbine/year,
- 0.11 raptors/turbine/year, and
- 6.33 bats/turbine/year.

The Proponent predicts the change in mortality risk to be low magnitude, regional in geographic extent, regular in frequency over a medium term duration, and reversible. The Proponent further predicts these operation mortality effects to be non-significant assuming that bat and bird fatalities will involve generally common species, that mortality effects from wind projects are considered to be lower than other anthropogenic sources of mortality, and that mitigation measures are available to be implemented to reduce mortality effects to bats.

ECCC advises caution in relying on this conclusion. The magnitude of Project effects to SAR and migratory birds on federal lands remain relatively uncertain, because:

1. detailed mitigation plans and post-construction monitoring plans specific to the portion of the Project to be located on federal lands have not been provided for review;
2. pre-construction surveys are often not good predictors of operational mortality for many species (e.g. bats) and limited data for Saskatchewan appears to be available; and
3. there is a size difference between the proposed turbines to be constructed and operated in this Project compared to other wind projects in Saskatchewan and turbines that were considered in the BSC 2018 reference used to derive predictions of mortality per turbine.

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[6] https://wildlife-species.canada.ca/species-risk-registry/virtual_sara/files/plans/Rs-TroisChauveSourisThreeBats-v01-2019Nov-Eng.pdf.

[7] BSC, Canadian Wind Energy Association, Environment and Climate Change Canada, Ontario Ministry of Natural Resources and Forestry. 2018. Wind Energy Bird and Bat Monitoring Database: Summary of the Findings from Post-construction Monitoring Reports. https://www.bsceoc.org/resources/wind/2018_Database_Summary_Report.pdf

Specific mitigation measures to avoid and lessen predicted mortality effects to SAR during Project operation on federal lands are not yet detailed. For the one to three turbines on federal lands, whether monitoring for Project mortality effects will include federal lands and whether available mitigation measures will be employed to reduce the Project's potential mortality risk to federally listed bat species, is uncertain. Detail regarding how the Project's adaptive management of mitigation measures and post-construction monitoring will be applied on the portion of the Project located on federal lands, and how results reporting will be shared has not been provided to ECCC.

In addition to direct effects of habitat loss and disturbance, the installation of wind turbines may also result in effects of displacement of birds from migratory routes and stopover habitats. Whooping Crane, for example, may be displaced from spring or fall stopover habitats in this portion of their migratory corridor during the Project's operation phase as migrating individuals avoid newly installed wind-energy infrastructure (Pearse et al. 2021[8]). While the Project and federal lands are found within the Whooping Crane migratory corridor, stopover habitat quality for Whooping Crane in the area of the Project does not appear to have been assessed by the Proponent.

Additional mitigation measures may be required to address predicted Project effects to bat SAR, including bat species being assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). COSEWIC is currently completing an assessment of Hoary Bat, Silver-haired Bat, and Eastern Red Bat (status report is in preparation, anticipated April 2022). ECCC advises that Project effects to these bat species, as well as to Little Brown Myotis, warrant additional consideration.

ECCC recommends that ISC require the Proponent to follow the Wildlife Siting Guidelines for Saskatchewan Wind Energy Projects[9] and the Adaptive Management Guidelines for Saskatchewan Wind Energy Projects[10]. ECCC further advises that ISC seek opportunities to include operating requirements specific to the Project components (turbines) on federal lands to address predicted mortality effects to bat SAR, such as:

- monitoring for predicted mortality effects at the turbines to be located on federal lands (the Adaptive Management Guidelines for Saskatchewan Wind Energy Projects outlines a recommendation for fatality monitoring at a portion, not all, of the turbines within a wind project, so the turbines sited on federal lands may not be monitored unless this is specified to the Proponent).

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[8] Pearse, A. T., Metzger, K. L., Brandt, D. A., Shaffer, J. A., Bidwell, M. T., and Harrell, W.. 2021. Migrating whooping cranes avoid wind-energy infrastructure when selecting stopover habitat. *Ecological Applications* 31(5):e02324. 10.1002/eap.2324

[9] Saskatchewan Ministry of Environment. 2019. Wildlife Siting Guidelines for Saskatchewan Wind Energy Projects. Report No. 2019-FWLB 01. Saskatchewan Ministry of Environment, 3211 Albert Street, Regina, Saskatchewan. 10 pp.

[10] Saskatchewan Ministry of Environment. 2018. Adaptive Management Guidelines for Saskatchewan Wind Energy Projects. Saskatchewan Ministry of Environment, 3211 Albert Street, Regina, Saskatchewan.

- inclusion of reporting requirements to inform ISC of monitoring outcomes and conservation and management responses (in addition to the provincial reporting proposed in the Adaptive Management Guidelines).
- consideration of technically achievable fatality minimization measures for the turbines operating on federal lands, for example:
    - operational curtailment below wind speeds of 5 m/s (this mitigation approach involves limiting the turbines from fully operating at lower wind speeds when bats may be in flight as a method to reduce mortality)
    - seasonal curtailment during periods of migration (this mitigation approach involves limiting the turbines from fully operating during later summer and fall, when seasonal risk of mortality is highest for migratory bat species)
    - use of other local environmental data besides wind speed, such as weather, to trigger implementation of curtailment actions
    - use of deterrents (e.g., ultrasonic acoustic deterrents)

ECCC also advises consideration of recent peer-reviewed scientific publications and on-going industrial research[11] available to support the Proponent's inclusion of additional mitigation measures in Project planning and adaptive management of predicted Project residual effects.

Permitting under the SARA may be required should project activities have potential to harm SARA listed species. Please reference "ECCC's Standard Advice on Species at Risk" section below for information on when permits may be required.

It is important to note that under ss. 79(2) of SARA, every authority who makes a determination under 82(a) or (b) of the IAA in relation to a project must identify adverse effects on all listed species, which include species of special concern and the critical habitat of extirpated, endangered and threatened species; and if the Project is carried out, ensure that measures are taken to avoid or lessen those effects and to monitor them. These measures must be consistent with the best available information including any Recovery Strategy, Action Plan or Management Plan in a final or proposed version. As defined under ss. 81(a) of the IAA, ISC is the federal authority tasked with the responsibility of determining that the carrying out of the Project is not likely to cause significant adverse environmental effects and, pursuant to ss. 86(2) of the IAA, must include any mitigation measures that it took into account in making the determination at the time the notice of determination is posted publicly. Finally, under ss. 79(1) of SARA, should this Project be likely to proceed, and prior to any determination, ISC is required to notify the competent minister or ministers in writing of the Project if it is likely to affect a listed wildlife species or its critical habitat. In addition to the advice provided above to aid ISC in its determination, ECCC has provided general advice (see below) relating to the application of the MBCA and the SARA that will aid the Proponent in determining whether Project activities are compliant with the applicable environmental legislation.

[11] A review of the effectiveness of operational curtailment for reducing bat fatalities at terrestrial wind farms in North America (plos.org)

ECCC's Standard Advice on Migratory Birds

ECCC's mandate includes the protection of migratory birds and their habitat.

The advice presented below does not provide an authorization for harming or killing migratory birds or for the disturbance, destruction or taking of nests or eggs under the MBCA. It does not provide a guarantee that the activities will avoid contravening the MBCA and *Migratory Bird Regulations* (MBR) or other laws and regulations. The information and advice provided here is not a substitute for the MBCA, the MBR, or any other legislation. ECCC does not have the authority to prescribe or recognize specific avoidance or mitigation measures for specific circumstances or activities. At all times, the onus remains with the individual or company or organization to comply with all applicable legislation, evaluate risks, and determine the most appropriate avoidance or mitigation measures required.

Migratory birds, their nests and/or eggs can be harmed as a result of many activities. Activities that do not primarily target a bird, but which may cause harm, include clearing trees or other vegetation, draining or flooding land, and using fishing gear. Harm includes killing, disturbing or destroying migratory birds, nests or eggs and can have long-term negative effects on bird populations. This is especially true if there are many incidents that harm birds.

The MBCA and MBR protect migratory birds and prohibit the disturbance or destruction of migratory bird nests and eggs in Canada. Under the MBCA it is also prohibited to deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or areas frequented by migratory birds. The legislation and regulations apply to all lands and waters in Canada, regardless of ownership.

Currently, the MBR does not provide for authorizations or permits for activities that do not primarily target migratory birds but which may cause harm. As such, to minimize the possibility of contravening the law, understanding potential impacts on migratory birds, nests and eggs, taking reasonable care, and avoidance are the best approaches to take when contemplating any activity or decision that has the potential to impact migratory birds, nests or eggs.

In order to reduce the risk of impacts on migratory birds and the risk of nest destruction or disturbance, proponents should avoid engaging in potentially destructive or disruptive activities at key locations or during key periods. These may include the breeding periods and periods of high usage, such as migration and/or feeding periods that vary by region and by species.

ECCC also provides technical information and key breeding dates as guidelines to help proponents determine the periods when the risk of destroying a migratory bird nest or egg, or otherwise contravening the MBCA and MBR is particularly high.

1. For the Project area, ECCC advises that any habitat destruction activities (e.g. vegetation clearing, mowing, flooding, draining, construction, etc.) or high disturbance activities (e.g., drilling, blasting) in areas attractive to migratory birds carry a particularly high risk of disturbing or destroying migratory bird nests or eggs between mid-April - late August. For maps, more specific regional nesting periods and nesting calendars,

and information on these, please visit: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html.

2. There is still a risk that birds may be nesting outside of these periods therefore vigilance is advised (e.g. crossbills can nest in winter if there is a good seed crop; Canada Goose, Mallard and Pintail can nest early; see https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/overview.html#toc3).

If an individual has a prior knowledge of an active nest or indicated nest (i.e. behaviour indicative of nesting such as aggression, distraction or territorial behaviour; carrying of fecal sacs, nesting material or food), at any time during the year, the nest must be protected with a suitable species-appropriate buffer until the young have fledged. See https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html#toc4.

3. In most habitats the ability to locate nests remains very low, while the risk of disturbing active nests is high. Except when nests are known to be easy to locate, active searching for nests is generally not recommended. In simple habitats such as an urban park made mostly of lawns with a few isolated trees, a vacant lot with sparse vegetation, or a previously cleared area, surveys may be carried out successfully under certain conditions. Surveys undertaken by experienced observers using widely accepted protocols and including behaviour indicative of nesting (e.g. aggressive, territorial, defensive, distractive behaviour; carrying of faecal sacs, nesting material or food). In more complex habitats surveys have a low probability of locating all nests and are likely to cause disturbance to nesting birds. Flushing nesting birds increases the risk of predation of the eggs or young, or may cause the adults to abandon the nest or the eggs. In many circumstances, disturbing or damaging nests is still likely to occur during disruptive activities even when active nest searches are conducted prior to these activities.

To determine the likelihood that migratory birds, their nests or eggs are present in a particular location, a scientifically sound approach that considers the available bird habitats, which migratory bird species are likely to be encountered in such habitats and the time periods when they would likely be present should be used. This will help plan work activities to avoid affecting nesting birds. If further investigation is required to determine the presence of breeding birds, conduct of an area search for evidence of nesting (e.g., presence of birds in breeding habitat through observation of singing birds, alarm calls, distraction displays) using non-intrusive search methods to prevent disturbance should be considered. In the case of songbirds for example, "point counts" (a technique where singing territorial males are located) may provide a good indication of the presence of the nests of these birds in an area.

ECCC’s avoiding harm to migratory birds website offers additional guidance. See https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html#toc3.

4. Nests of migratory birds are protected all year. It is prohibited to damage, destroy or remove a non-active nest without a permit or an authorization.

For most migratory bird species, removing the nest after the breeding season will have no effect on the ability of birds to nest again, as the great majority build or occupy new nests each year. On the other hand, some species, such as the Great Blue Heron, may reuse the same nest structure year after year, and the loss of these nests could have a negative impact on future nesting success. An appropriate approach for such circumstances must take into account relevant scientific information or practices for the species, considering in particular the species reliance on its old nest and the potential impact on nesting success of having to reconstruct a new nest. See https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html#toc6.

Note that some provincial, territorial or other federal legislation may protect nests of some migratory bird species at all times. The nest of a migratory bird is included in the definition of “residence” for migratory bird species which are endangered, threatened or extirpated.

ECCC’s Standard Advice on Species at Risk

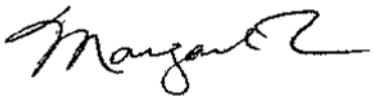
The SARA prohibits the killing, harming or harassing of listed species; the damage and destruction of their residences; and the destruction of critical habitat (in certain areas). The general prohibitions apply to all threatened, endangered and extirpated species listed on Schedule 1 of SARA on federal lands. The general prohibitions still apply to migratory birds that are also protected under the MBCA and aquatic species that are protected under the *Fisheries Act*, anywhere they are found in Canada, and may be extended to other listed species on non-federal lands if an Order is made under section 34(1) of SARA.

SARA permits are required by those persons conducting activities that may affect species listed on Schedule 1 of SARA, as extirpated, endangered, or threatened and which contravene the Act's general or critical habitat prohibitions. For more information on SARA permitting consult https://wildlife-species.canada.ca/species-risk-registry/sar/permit/permits_e.cfm.

It is important to note that under ss. 79(2) of SARA, every authority who makes a determination under 82(a) or (b) of the IAA in relation to a project must identify adverse effects on all listed species, which include species of special concern and the critical habitat of extirpated, endangered and threatened species; and if the Project is carried out, ensure that measures are taken to avoid or lessen those effects and to monitor them. These measures must be consistent with the best available information including any Recovery Strategy, Action Plan or Management Plan in a final or proposed version.

Please contact Cari-Lyn Epp at 306-491-2372 or cari-lyn.epp@ec.gc..ca if you need more information.

Sincerely,



Margaret Fairbairn
A/Regional Director, Environmental Protection and Operations Directorate
Prairie Northern Region

cc: Gillian Brown, A/Head, EA South, EPOD, ECCC
Anna Graham, Environmental Assessment Officer, Prairies Region, CWS, ECCC

Appendix 1: Species at Risk ranges that overlap with federal lands within the Bekevar Wind Energy Project area (Cowessess First Nation IR No.73 reserve lands at NW 04-13-05-2, SW 04-13-05-2, SE 04-13-05-2)

Appendix 1 – Species at Risk ranges that overlap with federal lands within the Bekevar Wind Energy Project area (Cowessess First Nation IR No.73 reserve lands at NW 04-13-05-2, SW 04-13-05-2, SE 04-13-05-2)

Species Common name	Scientific name	SARA Status
Birds		
Common Nighthawk	Chordeiles minor	Threatened[12]
Barn Swallow	Hirundo rustica	Threatened
Bank Swallow	Riparia riparia	Threatened
Bobolink	Dolichonyx oryzivorus	Threatened
Loggerhead Shrike Prairie subspecies	Lanius ludovicianus excubitorides	Threatened
Sprague's Pipit	Anthus spragueii	Threatened
Baird's Sparrow	Ammodramus bairdii	Special Concern
Horned Grebe	Podiceps auritus	Special Concern
Short-eared Owl	Asio flammeus	Special Concern
Whooping Crane	Grus americana	Endangered
Canada Warbler	Cardellina canadensis	Threatened[7]
Chestnut-collared Longspur	Calcarius ornatus	Threatened[7]
Red-headed Woodpecker	Melanerpes erythrocephalus	Threatened
Chimney Swift	Chaetura pelagica	Threatened
Ferruginous Hawk	Buteo regalis	Threatened
Buff-breasted Sandpiper	Tryngites subruficollis	Special Concern
Yellow Rail	Coturnicops noveboracensis	Special Concern
Western Grebe	Aechmophorus occidentalis	Special Concern
Long-billed Curlew	Numenius americanus	Special Concern
Mammals		
Little Brown Myotis	Myotis lucifugus	Endangered
American Badger taxus subspecies	Taxidea taxus taxus	Special Concern
Amphibians		
Northern Leopard Frog	Lithobates pipiens	Special Concern
Western Tiger Salamander	Ambystoma mavortium	Special Concern
Reptiles		
Snapping Turtle	Chelydra serpentina	Special Concern
Invertebrates		
Monarch	Danaus plexippus	Special Concern
Gypsy Cuckoo Bumble Bee	Bombus bohemicus	Endangered
Pale Yellow Dune Moth	Copablepharon grandis	Special Concern
Transverse Lady Beetle	Coccinella transversoguttata	Special Concern
Nine-spotted Lady Beetle	Coccinella novemnotata	COSEWIC Endangered

[12] Described on the SARA Public Registry as under consideration for status change