

Comment Index

Westchester Wind Project

Publication Date: April 14, 2022

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1	Kwilmu'kw Maw-Klusuaqn Negotiation Office	March 4, 2022
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1	Anonymous	March 14, 2022
2	Anonymous	March 10, 2022
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5	Anonymous	March 1, 2022
6	Anonymous	March 1, 2022
7	Anonymous	February 27, 2022
8	Anonymous	March 22, 2022
9	Anonymous	February 27, 2022
10	Anonymous	March 9, 2022
11	Anonymous	March 10, 2022
12	Anonymous	March 11, 2022
13	Anonymous	March 2, 2022
14	Anonymous	February 28, 2022
15	Anonymous	February 27, 2022
16	Anonymous	March 10, 2022
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18	Anonymous	March 10, 2022
19	Anonymous	March 10, 2022
20	Anonymous	March 14, 2022
21	Anonymous	March 20, 2022
22	Anonymous	March 10, 2022
23	Anonymous	March 11, 2022
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41	Anonymous	February 28, 2022
42	Anonymous	March 10, 2022
43	Anonymous	February 26, 2022
44	Anonymous	March 1, 2022
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48	Anonymous	February 25, 2022
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March 11, 2022

Nova Scotia Rate Base Procurement
By Email

Dear Nova Scotia Rate Base Procurement:

The Municipality is issuing this letter in the interests of clarity with respect to the temporary pause that is currently in place with respect to accepting wind turbine development permit applications.

By late 2021, members of Council for the Municipality of the County of Cumberland had been hearing a significant degree of community-based concern with regard to the further development of a wind turbine development project proposed for the Higgins Mountain area in Wentworth, Cumberland County. The Municipality acknowledges that there are at least two additional projects proposed in Cumberland County, in the Westchester area and in the Leicester area, and that members of Council have not heard any significant degree of opposition to these latter two projects.

The current provisions in the Municipality's Land Use Bylaw that relate to wind turbine development have been in place without being revisited for many years. The most recent municipal elections in 2020 resulted in a completely new Municipal Council. Not a single member had served on the previous Council. Their knowledge and familiarity with those provisions was limited to say the least. While acknowledging that development of alternative sources of energy and, frankly, the potential increased taxation and economic activity that comes with it were important, the members of Council were of the opinion that they needed to proceed purposefully and ensure that the bylaws under which any new developments were potentially approved reflected both best practices and community values.

With all of the above in mind, on January 12, 2022 Council approved second reading of a bylaw to amend its Land Use Bylaw by inserting the following provision:

5.1.23 For a period of six months commencing December 22, 2021, no development permit applications will be received for small- or large-scale wind turbines while the municipality reviews the requirements for small- and large-scale wind development permits.

Upon a motion by Council/ where additional time is deemed necessary to complete the review, this review period may be extended one time by a further period of up to six months.

Any applications received following the expiry of the review period shall be processed in accordance with the requirements in force at that time.

Municipal staff are now working through the review. Currently, the review and the consideration of any amendments is scheduled to be complete in June of 2022. Once the review is complete the Municipality expects to begin to, once again, receive development permit applications for wind turbine projects. A copy of the current work plan for the review is attached to this letter.

The Municipality appreciates the opportunity to clarify these issues.

Yours very truly,

Chief Administrative Officer

Proposed Work Plan

Municipality of Cumberland - Review of Wind Turbine Regulations

Date: January 25, 2022

	Jan	Feb	Mar	Apr	May	Jun
Project Mobilization						
Start Up Meeting (Process Outline)						
Data Collection						
Engagement Plan						
Develop Project Website						
Review & Analysis						
Review of Current Regulations						
Best Paractice Review						
Identify Policy Gaps						
Report on Issues (Policy Gaps)						
Public Engagement						
Engagement Strategy						
Communications Support						
Engagement Materials						
Public & Stakeholder Engagement						
Engagement Report						
Consultation Period on Draft						
Public Hearing						
Council Engagement						
Presentation to Council (Process Outline)						
Briefing on current wind regulations						
Outline Policy Gaps						
Summary of Engagement Report						
Presentation of Draft to Council						
Policy Development						
Prepare Draft MPS Amendments						
Prepare Draft Land Use By-Law Amendments						
Submit Draft MPS & LUB						
Draft Plan Presentation to Public						
Revision of Draft Amendments						
Final Presentation & Approvals						
Draft MPS & LUB Amendments to Council						
First Reading Of Revised Amendments						
Public Hearing						
Second Reading						



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Date: March 21, 2022

To: Janice Ray, Environmental Assessment Officer, Nova Scotia Environment and Climate Change

From: , Environmental Assessment Officer, Impact Assessment Agency of Canada

Subject: Natural Forces Westchester Wind Project

The federal environmental assessment process is set out in the [Impact Assessment Act](#) (IAA). The [Physical Activities Regulations](#) (the Regulations) under IAA set out a list of physical activities considered to be “designated projects.” For designated projects listed in the Regulations, the proponent must provide the Agency with an Initial Description of a Designated Project that includes information prescribed by applicable regulations ([Information and Management of Time Limits Regulations](#)).

Based on the information submitted to the Province of Nova Scotia on the proposed Westchester Wind Project, it does not appear to be described in the Regulations. Under such circumstances the proponent would not be required to submit an Initial Description of a Designated Project to the Agency. However, the proponent is advised to review the Regulations and contact the Agency if, in its view, the Regulations may apply to the proposed project.

The proponent is advised that under section 9(1) of the IAA, the Minister may, on request or on his or her own initiative, by order, designate a physical activity that is not prescribed by regulations made under paragraph 109(b) if, in his or her opinion, either the carrying out of that physical activity may cause adverse effects within federal jurisdiction or adverse direct or incidental effects, or public concerns related to those effects warrant the designation. Should the Agency receive a request for a project to be designated, the Agency would contact the proponent with further information.

The proposed project may be subject to sections 82-91 of IAA. Section 82 requires that, for any project occurring on federal lands, the federal authority responsible for administering those lands or for exercising any power to enable the project to proceed must make a determination regarding the significance of environmental effects of the project. The Agency is not involved in this process; it is the responsibility of the federal authority to make and document this determination.

The proponent is encouraged to contact the Agency at (902) 426-0564 if it has additional information that may be relevant to the Agency or if it has any questions or concerns related to the above matters.

Thank you,

Environmental Assessment Officer, Atlantic Regional Office
Impact Assessment Agency of Canada / Government of Canada
/ Tel:

Agente d'évaluation environnementale, région de l'Atlantique
Agence d'évaluation d'impact du Canada / Gouvernement du Canada
/ Tél. :

Date: **March 16, 2022**

To: Janice Ray, Environmental Assessment Officer

From: Environmental Engineer - Groundwater, Water Resource Unit,
Sustainability and Applied Science Division

Cc: Water Resource Unit Manager

Subject: **Review of Natural Forces Westchester Wind Project for Groundwater Effects**

Environmental Assessment (EA) reviews from the NSECC Sustainability and Applied Science Division Environmental Engineer – Groundwater Program focus primarily on groundwater resources. This includes the potential for the proposed undertaking/project to adversely affect groundwater resources, including general groundwater quality, quantity, municipal water supplies, local water supply wells and groundwater contributions to stream baseflow, groundwater recharge and wetlands. The review is conducted of materials provided by the proponent during the EA registration process. Any recommendations made are based on this review.

Natural Forces Developments Ltd in partnership with the Wskijnu'k Mtmo'taunuow Agency Limited propose to construct and operate a new wind power site. The Westchester Wind Project is proposed to be located southeast of the Town of Oxford, NS near the communities of Rose and Westchester Mountain. The project is to construct, install and operate up to 12 wind turbine generators to produce up to 50 MW of renewable energy.

The project includes overburden removal, widening and upgrading of existing roads, construction of new roads, blasting, and excavating for the purposes of installation of crane pads, wind turbine foundations, and substation construction.

Comments

- Baseline information regarding groundwater and wells was presented in the application, including, mapping of wells and descriptions of geologic conditions.
- Impacts on groundwater are not considered to be a significant risk with the proposed project.

The centre of the proposed site is located approximately 2km away from the nearest potential drinking water well. This is based on a review of the Well Logs database. However, it has been noted previously that the Well Logs Database Records and any mapping based on these records need to be considered in

terms of locational errors/accuracy of the original data. In addition, the Well Logs Database does not contain a complete listing of every water supply well in the province and some areas may contain water supply wells not reported. Field truthing and field surveys for actual water supply well locations would be needed for verification.

- The centre of the proposed site is approximately 20km to the nearest municipal watershed, located within the Maccan River Watershed. The proposed undertaking is not located within a municipal water supply area.
- The closest registered public drinking water supply is approximately 7km away from the centre of the proposed site.

Recommendations

The following recommendations are suggested for the **Natural Forces Westchester Wind Project**

1. Prior to any blasting, the Approval Holder should be required to conduct a pre-blast survey for water wells within 1km of the point of blast. The survey must be conducted in accordance with a "Procedure For Conducting a Pre-Blast Survey" provided by NSECC. Any water well impacts from the blasting must be corrected by the Approval Holder to the satisfaction of NSECC.
2. An Environmental Protection Plan (EPP) or Environmental Management Plan (EMP) should be required and include, to the satisfaction of NSECC, the following information relevant to protection of groundwater resources applicable during the construction, operation and maintenance of the Undertaking.
 - i. a contingency plan to address spill response and clean-up procedures relevant to site equipment including transformers, turbines and vehicles.
 - ii. effective erosion and sedimentation run-off monitoring, controls and mitigation, if necessary.
 - iii. mitigation of potential Acidic Rock Drainage (ARD) effects from construction
 - iv. mitigation/compensation for potential blasting effects (where used could also be separately described outside an EPP)

Date: March 25th, 2022

To: Janice Ray, Environmental Assessment Officer

From: Air Quality Protection Advisor, Air Quality Unit

Subject: **Westchester Quarry Expansion Project**

As requested, the Air Quality Unit provides the following comments regarding air quality and noise on the Environmental Registration Document for the Westchester Wind Farm Project:

Air Quality

The air quality assessment is reported in Sections 6.1.1.3 and 7.1.1.3 of the Registration Document. In Section 6.1, the proponent notes that the Air Quality Health Index (AQHI) *of Pictou was low in January 2022*. It is not clear how many days were observed in order to determine this conclusion. Based on this, the proponent determined that the AQHI for the proposed project area would also be low.

Air quality for regulatory purposes is not normally assessed using the AQHI. The AQHI is a relative measure of air quality based on the concentrations of three pollutants: nitrogen dioxide, ozone and PM_{2.5}. Air quality should be considered within the context of the ambient air quality standards for Nova Scotia. In rural areas, and with projects of this nature, the primary pollutant influencing air quality is likely to be total suspended particles (TSP). TSP becomes airborne through a variety of methods notably to movement of vehicles on unpaved roads. The description of the construction of new and the widening of existing roads in section roads in section 2.3.1 indicate that crushed stone will be the surface material used. This constitutes unpaved roads.

The air quality assessment should contain an assessment of all pollutants emitted by the project and include, as a minimum, an assessment of the impact of the project on TSP concentrations in the air. The mitigation methods reported in the Environmental Management Plan (Appendix O) are pertinent to this type of project. However, considerably more detail is required with respect the control of fugitive dust, for example, what the triggers will be, how will this be monitored, who is responsible, and the frequency of application of water or other suppressant. The details of the proposed suppressant should be reported to the Department for further assessment of impacts, whether the mitigation method is considered to be environmentally benign or not.

Noise

The noise assessment is reported in Sections 6.1.1.4 and 7.1.1.4 of the Registration Document and Appendix C. The proponent has used Nova Scotia *Guide to Preparing an EA Registration Document for Wind Power Projects* as updated in 2021 as the basis for

the assessment. The proponent does not appear to have consulted the Federal *Guidance for Evaluating Human Health Impacts in Environmental Assessment: NOISE* as part of the assessment. No background measurements are reported, and the assessment methodologies presented in the Federal guidance have not been used.

The proponent has assessed construction and operational noise impacts. For construction noise, the proponent calculated that *86 dB[A] is the highest expected sound level during combined construction activities*, reportedly calculated using Washington State Department of Transport guidelines. These guidelines were used to determine that noise from construction would decline to 41 dB(A) at 975m from the source. Details with respect to what assumptions this is based on and how the calculations were made are not presented, and therefore cannot be verified.

For the assessment of operational noise, the proponent used WindPRO v.3.5 which is a recognized noise propagation model for assessing noise impacts from wind farms. This model is reported to use the ISO 9613-2 model *Attenuation of sound during propagation outdoors, Part 2: A general method of calculation* methodology. All sixteen turbine locations were used in the modelling assessment. This would represent the worst case for all receptors as it is not clear which of the sixteen locations would be used in the final array of twelve turbines. The modelling output is presented in Appendix B of the assessment, with the predicted contours presented in Appendix A of the assessment.

The sound pressure level for the turbine model that was selected for this assessment is not clearly identified. In Table 2 of the Registration Document, the maximum sound pressure level is reported as up to 107.6dB(A), however, it is not clear, from Appendix C, what sound pressure level was used for the assessment. The Nova Scotia *Guide to Preparing an EA Registration Document for Wind Power Projects* requires that the sound pressure level is clearly stated.

The modelling results predict that no identified receptor would experience noise levels from the combined sixteen turbines above 40dB(A). However, the Nova Scotia *Guide to Preparing an EA Registration Document for Wind Power Projects* states that:

In establishing separation distances, a proponent must ensure that the wind farm design and turbine siting does not cause sound levels to exceed 40 dBA (A-weighted decibels) at the exterior of receptors.

Therefore, it is not sufficient to state noise levels that are only produced by the proposed development. One receptor is predicted to experience noise from the proposed development of 36.6dB(A). If a background noise level is within 1dB(A) of this level, the combined sound level experienced at this receptor would be 39.6dB(A). This provides little margin for error.

For the low frequency sound assessment, it is not clear why the wind values are different to those used in the operational sound assessment, and why the immission value used was 4m, whereas 1.5m was previously used.

The mitigation measures should be considered with respect to the specific comments on the Environmental Management Plan and Complaints Resolution Plan below. No

monitoring is proposed, however, the Department may request that ambient noise monitoring is undertaken before or during the construction and operation of the proposed project.

With respect to the Environmental Management Plan, presented in Appendix O, activities should be restricted to daylight hours. Communication with residents should be prioritized to ensure that residents have advanced knowledge of particularly noisy events, such as blasting.

With respect to the Complaint Resolution Plan, presented in Appendix B, it is not clear if complaints will be addressed within twenty calendar days or twenty business days. In either case, noise complaints should be addressed promptly. Twenty days may be too long for complainants to wait for a response.

Changes in noise levels at receptor locations as a result of increased vehicle movements does not appear to have been assessed. No assessment of the impact of project noise on wildlife was presented in the noise assessment sections.

Natural Resources and Renewables

MEMORANDUM

TO: Janice Ray, NS Department of Environment and Climate Change
FROM: NS Department of Natural Resources and Renewables
DATE: March 24, 2022
RE: Natural Forces Westchester Wind Project

The Department of Natural Resources and Renewables (herein the Department or NRR) provides the following comments on the above project:

Crown Lands:

This project is not located on lands under the administration and control of the Department of Natural Resources and Renewables. This project would not require approvals/permits/authorities from the Land Administration Division.

Wildlife, Wildlife Habitat and Species-at-Risk:

The Department offers the following comments and recommendations for conditions of approval (in bold text):

- **Section 0. VECs and Environmental Assessment Studies** are not properly identified or associations are poorly made; e.g., VEC Bats and Bird Habitat has Wood Turtle Survey as an Environmental Assessment Study.
- **Section 2.6 Planning, Site Preparation, and Construction.** Vegetation clearing and site preparation can only occur during the breeding season following consultation, development of guidance, and approval by the Wildlife Division, Department of Natural Resources and Renewables. Buffers may be required if active nests are discovered.
- **Section 5.2.1 Spatial Boundaries. Table 8.** Justification is lacking for the local area of assessment (LAA) for wildlife related VECs. Justifications (expert advice, report, or peer-reviewed research) that supports the use of these LAA boundaries has not been provided.
- **Section 6.2.1 Terrestrial Habitats and Vegetation.** It is not clear from the information provided how terrestrial habitat is defined, and how it was categorized.
- **Section 6.2 Biophysical VECs.** The word “majority” is often used to describe the

habitat types (e.g., the majority of the site is dominated by cultivated blueberry fields). Quantitative measurements should be provided.

- Section 6.2.3 Wetlands. *“The assessment of wetlands within areas of the current LAA that were beyond the LAA of the previously proposed Project layout have been assessed via desktop using predictive mapping of potential wet areas.”* Information provided the proponent is incomplete; additional field programs may be required or information gaps reflected in proposed mitigations.
- Section 6.2.4 Bird and Bird Habitat. The proponent has not adequately described the role of provincial Acts and regulations as they pertain to the protection of bird species. All bird species (regardless of whether they are migratory or not) are protected under the provincial *Wildlife Act*.
- Section 6.2.4 Bird and Bird Habitat Figure 11A. Survey coverage should not just be representative habitat, but also cover as much of the project footprint as possible, and include important ecological features which have a higher likelihood of containing SAR/SoCC (e.g., wetlands and watercourses).
- Section 6.2 Biophysical VECs. Areas covering turbine locations T7, T13 and T9, T10, T16 are consistently underrepresented in survey efforts. Figure 8 shows these areas as hardwood-dominant (unmanaged) forests and may provide habitat for a number of species, including SAR/SoCC.
- Section 6.2.4.5 Nocturnal Avian Migration. The *Guide to Preparing an EA Registration Document for Wind Power Projects in Nova Scotia* (NSE 2021) recommends that proponents consult with regulators on methodology for bird migration assessment. At the time of consultation with the proponent, the Wildlife Division strongly recommended two (2) years of pre-construction monitoring.
- Section 6.2.4.5 Nocturnal Avian Migration. A different altitudinal detection range was used in the spring versus fall migration survey.
- Section 6.2.5.2 Observed Bat Species Table 17. Description of malfunctioning equipment during survey periods is one reason the Wildlife Division requested that two (2) years of pre-construction surveys are conducted.
- Section 6.2.5.2 Observed Bat Species. *“Based on Dillon’s experience on similar bat acoustic programs throughout the country, both the total number of bat passes and the average bat passes per detector night (during the breeding period, fall migration, and entire survey period) are considered very low.”* The proponent is assuming that results indicate that low number of bats are found in the study area and therefore would not be significantly affected by the project. Review of data collection methodology and results in Appendix J indicates additional research is required before drawing any conclusions on bat use of the study area.
- Section 6.2.7 Species at Risk. Table 21. Table is confusing in how it is presented.
- Section 6.2.7.7 Environmentally Sensitive or Managed Areas. There is inconsistency by the proponent in their approach to Mainland moose by discussing the concentration area while other sections and appendices of the EA reference the provincial recovery plan and identified core habitat.
- Section 7.1.2.1 Geology. Blasting (as mentioned in Table 135) has the potential to impact wildlife and SAR/SoCC which has not been described here.

- Section 7.2.1 Terrestrial Habitats and Vegetation. Eastern waterfan (*Peltigera hydrothyriai*) is listed as Threatened under the Nova Scotia Endangered Species Act (NS ESA). It should be noted that legally no disturbance of the species or its habitat is allowed. Any mitigations proposed should reflect this requirement.
- Section 7.2.1 Terrestrial Habitats and Vegetation. Table 40. Proposed mitigation measures are not described in sufficient detail. For example, any revegetation of a reclaimed site must be either naturally occurring or using native local vegetation.
- Section 7.2.1 Terrestrial Habitats and Vegetation. Table 40. “No work in streams which will avoid potential impacts to lichen SAR;” This should expand to riparian areas in order to maintain the integrity of the habitat. Appropriate buffers and mitigations should be developed in consultation with regulatory agencies.
- Section 7.2.2 Wildlife. The proponent has demonstrated an understanding of Mainland moose biophysical needs. Mainland moose may not use agricultural areas as part of their habitat, but will likely move through the LAA to access more suitable habitat. Roads and disturbances associated with road use are considered a very high threat to recovery, and the increased disturbance associated with upgrading existing roads, new road construction, and increased use from historical levels has not been identified or addressed by the proponents.
- Section 7.2.2 Wildlife. Table 40. Vehicle cleaning should occur away from any watercourse/wetland. Cleaning should also occur as vehicles leave the site to ensure that invasives already present are not spread to other areas.
- Section 7.2.2 Wildlife. Table 40. “No work in streams which will avoid potential impacts to lichen SAR;”. A buffer and allowable activities that can occur around the aquatic lichen occurrence will be established according to guidance provided through consultation with Nova Scotia Department of Natural Resources and Renewables (NRR). Both the quality and integrity of the watercourse must be maintained to prevent disturbance or harm.
- Section 7.2.2 Wildlife. Table 41. Mitigations provided are not detailed enough or are insufficient. Reduced speeds in the vicinity of wildlife, dust suppression, and noise and lighting restrictions are all appropriate activities which can be used to minimize disturbance to wildlife in the PDA.
- Section 7.2.2 Wildlife. Table 41. “(3) if a SAR or a nest of any bird is encountered during activities, work around the SAR or nest shall cease until a biologist is dispatched to assess the situation and appropriate mitigation is applied”. Work must halt and regulatory agencies must be contacted for situations involving SAR and any mitigations and buffers developed in consultation with NSNRR.
- Section 7.2.4 Birds and Bird Habitat. “A significant environmental effect would result if a considerable change to migratory and breeding birds was the result of project activities.” The proponent should define what constitutes a “considerable change”.
- Section 7.2.4 Birds and Bird Habitat. Table 43. Under proposed mitigation measures, clearing and/or grubbing during the breeding season can only occur following approval and following survey requirements developed and approved in consultation with NRR. Migratory birds and their nests are protected under both the *Migratory Bird Convention Act (MBCA)* and the provincial *Wildlife Act*.

- Section 7.2.4 Birds and Bird Habitat. Table 43. *“Workers will be familiarized with the SAR and SoCC that were identified at the site during the biophysical assessments prior to work commencing”.* Workers on site should be familiar with any SAR/SoCC that were identified as having the potential to occur on site through both field and desktop analysis.
- Section 7.2.4 Birds and Bird Habitat. Table 43. *“During the first year, post construction monitoring events will be targeted to capture the morning following nights with favorable tail wind conditions”.* One year of post-construction mortality surveys is insufficient. The requirements for the post-construction monitoring program and length of time of the program must be developed in consultation with appropriate regulatory agencies (NRR, Canadian Wildlife Service (CWS)).
- Section 7.2.4 Birds and Bird Habitat. Table 43. *“A follow up avian mortality survey will be conducted after the Project commissioning and appropriate actions will be taken in consultation with CWS and NR&R.”* Please explain how this program is different from the one identified above.
- Section 7.2.6.2 Turtle and Turtle Habitat. Table 46. Any possible or confirmed nesting of turtles in the PDA should be immediately reported to NRR.
- Section 7.5 Cumulative Effects. The proponent does not adequately address additional wind farms in close proximity to one another and the impact on migratory birds and bats, nor the increase in road density and road disturbance on Mainland moose. Statements are made that cumulative effects on wildlife will be “negligible” or “low” without research or data to support the assertion.
- Section 7.6 Summary of Effects. Terms are not adequately defined.
- Appendix E. Vegetation Surveys. 2.2 Field Surveys. It is unclear where surveys were conducted within the LAA. Additional details on field surveys are required.
- Appendix E Vegetation Surveys. Information on invasives has not been provided.
- Appendix F Wildlife Surveys. Figure F-1. Transects for Mainland moose do not appear to be located in conifer-dominant forest types within the LAA. The area with largest relatively contiguous area of conifer dominant forest (T1, T2, T11, T12) has no transects.
- Appendix H Bird Surveys. Review of the data is challenging due to how the proponent has described results; e.g., summer survey program appears to summarize breeding bird survey results, which are also presented separately.
- Appendix H Bird Surveys. 2.2 Field Surveys. Survey details are insufficient to assess validity of results.
- Appendix H Bird Surveys. 2.2 Field Surveys. Given difficulty in detection, NRR recommends two (2) surveys for Common nighthawk spaced 10 days apart. Surveys must be conducted in any habitat appropriate for nesting. Refer to the following protocol for further details: Government of Saskatchewan. 2020. Species Detection Survey Protocol: 15.0 Common Nighthawk Surveys. April 2020. Saskatchewan Ministry of Environment, Fish, Wildlife and Lands Branch, Regina, Saskatchewan, Canada. In the absence of surveys the precautionary principle applies in that mitigation measures for Common nighthawk are applicable in any potentially suitable nesting habitat.
- Appendix I Radar and Acoustic Monitoring Surveys. During scoping meetings in 2021 with the proponent it was strongly suggested by Environment and Climate

Change Canada (ECCC) and asked from NRR that two (2) years of preconstruction surveys be provided. Only one year of preconstruction surveys have been provided.

- Appendix I Radar and Acoustic Monitoring Surveys. Audiomoth detectors only cover a range of 100 m and did not assess the full sweep of the turbine.
- Appendix J Bat Surveys. 1.2 Scope of Work. Justification for the size of the Study Area (250 m buffer) has not been provided.
- Appendix J Bat Surveys 1.2 Scope of Work. In order to capture the full suite of migratory and resident bat species that may be present on site NRR recommends two survey periods Spring – May 1st to June 30th Fall – August 15th to October 31st.
- Appendix J Bat Surveys 2.2 Field Surveys. Only one of six (6) detectors captures the full sweep of the turbine rotor.
- Appendix J Bat Surveys Table J-1. Information presented showed that some detectors were moved or malfunctioned, highlighting concerns about results and the need for two (2) years of surveys.
- Appendix K Watercourse and Fish Habitat Surveys. 2.3 Turtle Habitat Survey. Turtle survey methodology is required in order to assess validity of survey results.

Conditions:

The Department requests the following conditions of approval:

1. **With respect to the proposed undertaking, the proponent must ensure they are compliant with the *Wildlife Act* and *Endangered Species Act*, and that any regulatory requirements such as obtaining permits are adhered to.**
2. There are frequent references in sections of the document to the amount of agricultural fields within the PDA, and how mitigation will be achieved by restricting activities where possible to managed land. **The proponent must provide the following information to better inform discussions around mitigations:**
 - **Percentage of existing roads, agricultural areas, managed forest, and unmanaged forest within the PDA;**
 - **Percentage of each of these terrestrial habitats that will be cleared for project infrastructure (including, but not limited to, turbines, new road construction, and widening of existing roads/trails).**
3. **The proponent must provide additional details relating to terrestrial habitat classification and wildlife associations (including SAR/SoCC).**
4. **The proponent must provide details of survey programs for the vegetation surveys, bird surveys, and turtle surveys (including, but not limited, to, locations (GPS tracks where available), dates, timing, weather, and temperature). Following the assessment of survey information by NRR, additional surveys may be required.**
5. **The proponent must provide an assessment of bat maternity roost habitat**

and potential for bat maternity roost sites. Further surveys may be required pending review by NRR of the results of the assessment.

6. The proponent must provide a minimum of two (2) years of consecutive baseline surveys for birds and bats, including radar and acoustic surveys, in order to compare trends, consistency of movements between years, and provide an understanding of flight variance in relation to environmental conditions and different weather patterns. This information may also inform siting of infrastructure. As only one year of surveys for birds and bats were provided, a second year of surveys is required. Surveys must be conducted to the standards provided by NRR and Canadian Wildlife Service (CWS). Survey results and analysis must be provided to NRR and CWS and could result in additional mitigations, post-construction monitoring requirements, and adaptive management programs.
7. The Proponent must develop and implement a program to monitor birds and bats post-construction for a specified time frame and to standards as defined by NRR and CWS. Based upon the results of monitoring programs, the Proponent must make necessary modifications to mitigation plans and/or wind farm operations to prevent any unacceptable environmental effects, based on consultation with NRR and CWS. The Proponent must document accidental mortalities of bats and birds and submit an annual report to NRR and CWS.
8. Areas covering turbine locations T7, T13 and T9, T10, T16 are consistently underrepresented in survey efforts. **The proponent must provide the rationale for exclusion of turbine locations T7, T13, T9, T10, T16 areas during field programs. Additional surveys may be required for wildlife, birds, and vegetation following review of information provided.**
9. The discovery of Eastern waterfowl incidentally during other field programs necessitates the need for additional lichen survey work within the LAA. **The proponent must ensure that lichen surveys are carried out within appropriate habitat by a provincially approved lichenologist and results of the survey provided to NRR for review. Pending review of results additional mitigations may be required.**
10. Additional surveys for Mainland moose may be required. **The section of the project with the largest relatively contiguous area of conifer dominant forest (T1, T2, T11, T12) has not been surveyed for Mainland moose. The proponent is required to explain the reasoning for transect survey locations. If the explanation is deemed unsatisfactory, further survey work or additional mitigations may be required.**
11. **The proponent must develop and implement a post-construction monitoring program for Mainland moose, consisting of winter transects, PGIs, or a combination of the two, extending outwards up to a distance of 2 km from the site in order to assess the impact of wind farm disturbance on Mainland moose behaviour and movement. The monitoring program is to be developed in consultation with NRR and implemented following approval.**
12. **Clearing of vegetation and grubbing must occur outside of the breeding**

season for most bird species (April 15 to August 15). If the activity must be conducted during the breeding season, approval may be granted following the development and implementation of an appropriate bird/nest survey, and only following approval by NRR.

- 13. The Environmental Protection Plan does not provide sufficient detail to protect wildlife, birds (migratory and non-migratory) and SAR/SoCC associated with the project. NRR requires the proponent to develop a Wildlife Management Plan (WMP) to ensure that activities are compliant with relevant Acts and regulations pertaining to wildlife and species at risk (MBCA, SARA, NS ESA, and NS Wildlife Act). The WMP must be developed in consultation with the Department's Wildlife Division and be approved by NRR and Environment and Climate Change before any work on the project commences. At minimum, the WMP should include the following:**
- Measures to deter ground nesting species, including mitigations to protect Common nighthawk;**
 - Measures to protect Eastern waterfowl and its habitat (including aquatic and riparian areas) from adverse effects of the project, which includes maintaining water quality;**
 - Mitigations against impacts of noise, light, and dust during the construction and operation of the project;**
 - Measures to prevent the spread of invasives on and off site, including a revegetation plan;**
 - Identify and address potential cumulative impact of road disturbance to Mainland moose;**
 - Management of non SAR/SoCC wildlife within the PDA;**
 - Mitigations to reduce the potential impacts of the undertaking during spring and fall migratory periods for birds;**
 - Mitigations and monitoring for wildlife and SAR/SoCC in the event that blasting is required as part of geological work;**
 - Communication plan in the event of observations, encounters, or adverse effects of the undertaking on wildlife and/or SAR.**

Date: Mar 16, 2022

To: Environmental Assessment Officer

From: Environment Inspector, ICE Division

Subject: **Environmental Assessment Registration Document Submission for the Westchester Wind Project (review/comments)**

No concerns were noted that weren't already addressed in the document.

Watercourse crossings and wetland alteration activities, mainly associated with access road construction for this project, were identified as aspects of the project requiring notification to or approval from Nova Scotia Environment and Climate Change prior to construction. Formal notification and approvals are required under Division I, "Water", of the Activities Designation Regulations pursuant to the Nova Scotia Environment Act. When applicable, submissions to the department must include specific project details in accordance with program applications forms and checklists, etc. The construction season for watercourse alterations is typically in the dryer months, between June 1st and September 30th of any given year.

Activities with possible risks of releases of substances that may result in negative impacts to the environment, including siltation events to watercourses and wetlands due to exposed soils during construction, the release of vehicle and heavy equipment fluids and fuel, releases from fuel storage tanks on site or during transportation, etc., have been noted in the document. Preventative and protective measures would be fully expected to be implemented, as well as prepared contingency responses and associated equipment available on site. Spills must be cleaned up accordingly and must be reported in accordance with the Environmental Emergency Regulations.

All required clearance distances should be maintained and maximized when possible.

Agriculture

Date: March 25, 2022

To: Janice Ray, Nova Scotia Environment and Climate Change

From: Executive Director, Policy and Corporate Services,
Nova Scotia Department of Agriculture

Subject: Westchester Wind Project - Environmental Assessment

Thank you for the opportunity to review the Westchester Wind Project documents.

The Department of Agriculture has the following comments:

- The proposed site location is in an existing blueberry-growing area.
- The project will require a minimal amount of land to be taken out of agricultural production for the construction of roads, transmission lines, crane pads, and turbine foundations.
- The blueberry crop should remain harvestable even if wind turbines are built in blueberry fields.
- No other agricultural activity is taking place within 13km of the proposed project.
- The proposed site is located on Class 7 soil.



Fisheries and Oceans
Canada

Pêches et Océans
Canada

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Date: March 23, 2022

To: Janice Ray, Environmental Assessment Officer

From: , Hydro and Flow Unit, Regulatory Review Biologist, Fish and Fish
Habitat Protection Program

Subject: Westchester Wind Project, Cumberland Co., (DFO File#: 22- EA- 060)

Dear Janice Ray:

Fisheries and Oceans Canada (DFO), Fish and Fish Habitat Protection Program (FFHPP) received the Nova Scotia Environmental Assessment registration document submitted for the Westchester Wind Project, Hants Co., on February 23, 2022. The proposed project will construct up to 12 wind turbines and one power substation, all located on privately owned lands of mixed land uses (agriculture, commercially forested and undeveloped forested) in Cumberland County, near the communities of Westchester Station, Rose and Londonderry.

The project construction area, estimated to cover approximately 88 hectares, includes approximately 31 hectares of wetlands - most of which are classified as shrub swamp. Multiple streams and brooks flow through the site, including Gleason Brook, and several associated tributaries to Gleason Brook, Fountain Lake Brook, Mountain Brook, and Duck Pond. Some parameters of the proposed project remain unconfirmed including the type(s) of wind turbine, the road access routes, and the size and extent of the development footprint.

DFO-FFHPP is responsible for administering the fisheries protection provisions of the *Fisheries Act (FA)* and *Species at Risk Act (SARA)* for aquatic species at risk. The fisheries protection provisions of the *FA* include: section 34.4 which prohibits the death of fish by means other than fishing; section 35 which prohibits the harmful alterations, disruption, or destruction (HADD) of fish habitat; and section 36.3 which prohibits the deposition of deleterious substances into water frequented by fish or in any place where it may enter such water. *SARA* prohibits: the killing, harming, harassment, possession, capturing, or taking of a species listed as extirpated, endangered, or threatened; the damage or destruction of a residence; or the destruction of any part of the critical habitat of such a listed species, unless authorized by the minister.

Below you will find the comments from DFO-FFHPP regarding the above project:

Wetland Assessment

- A functional assessment of all affected wetlands within the Local Assessment Area (LAA) should be completed and reported before the project's anticipated direct and indirect effect(s) on fish and fish habitat can be evaluated.

Watercourse crossings/ Road development:

- The effects of past development activities (e.g. layout of access roads and installation of the WCs) may presently be limiting the productivity of fish/fish habitat. Site planning within the LAA – for development and reclamation - should identify any such existing limiters caused by anthropogenic development activities and strive to support aquatic ecosystems to recover and function at their former *inherent* natural capacity.

Species at Risk

- Atlantic salmon (*Salmo salar*) (Inner Bay of Fundy population), a species of conservation concern that is presently listed as Endangered under SARA, may occur within the LAA. A portion of the proposed project's LAA overlaps the species' critical habitat, which is also protected under SARA.
- Eastern waterfan (*Peltigera hydrothyria*), an aquatic stream-dwelling lichen of conservation concern that is listed as Threatened under SARA, occurs within the LAA.
- American eel (*Anguilla rostrata*), a species of conservation concern that is presently listed as Threatened by COSEWIC, may occur within the LAA.

Acoustic/Subsonic effects

- The behavior and health of fishes (and other wildlife) are affected by seismic vibrations and anthropogenic sounds. The proponent should include an evaluation of the potential effects of sounds and vibrations associated with the construction (e.g. blasting) and daily operation of the proposed project to fishes occurring within the LAA.

Should the EA be granted conditional approval, DFO will be requesting additional information be provided through the Nova Scotia of Environment Wetland and Watercourse Alteration Approval processes to determine if the project will result in the HADD to fish and fish habitat and require an authorization under the FA.



Environmental Protection Branch
16th Floor Queen Square
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Dartmouth, NS B2Y 2N6

March 25, 2022

Janice Ray
Environmental Assessment Officer,
Nova Scotia Environment and Climate Change
1903 Barrington Street
Halifax, NS B3J 2P8

Dear Janice Ray:

RE: Westchester Wind Project, Cumberland County, Nova Scotia 21-NS-005

Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS) has reviewed Natural Forces Developments Limited Partnership's environmental assessment registration document for the proposed Westchester Wind Project located in Cumberland County, Nova Scotia, and have the following comments:

- Several types of migratory bird habitat are in decline in Nova Scotia, including mature coniferous forest, mature deciduous forest and mature mixed forest. A map that identifies mature forest habitat in relation to proposed project infrastructure should be included in the review, including an analysis of project impacts on migratory birds species that use these habitats, taking into account cumulative losses.
- Delineated wetlands (17 totaling ~ 2.5ha) were identified, including treed and shrub swamps with lesser areas of bogs, fens and wet meadows. Potential indirect effects of wetlands are anticipated within 30 m of delineated wetlands boundaries and direct effects to Wetland 14 (shrub swamp) identified due to proposed access road construction to T1 and T2. The environmental assessment registration document (EARD) (section 7.2.3 Wetlands – Potential Interactions and Mitigation) should clarify how field surveys informed plans to avoid effects (indirect and direct) to wetlands, including wetlands used by bird SAR, such as Canada Warbler, Olive-sided Flycatcher and Rusty Blackbird identified through desktop and field surveys. Where effects to wetland habitat are deemed unavoidable, ECCC-CWS recommends including a discussion of why avoidance is not possible, as well as, a wetland compensation plan, which considers conservation allowances for the loss of wetland habitat used by bird SAR.
- Bird Surveys (Appendix H): The proponent should clarify rationale for not including surveys in the southern portion of the local assessment area around turbine 10 and southwest area around turbine 13 including the road extension.

Also, clarification of survey methodology is required. Based on the results, it appears that point counts referred to as "transects" during spring, summer, and fall surveys were actually groups

of point count locations conducted in a line, and not an actual transect count surveys (i.e. counting all birds heard along a trajectory while walking a consistent speed). Winter surveys however appear to be actual transect survey counts because there are no point count stations identified; if this is the case, either the average walking speed while surveying or the amount of time taken for each transect should be included so the count data can be standardized.

- As discussed in the Radar & Acoustic Monitoring Report (Appendix I), without knowing what is occurring during migration in other areas of NS, it is difficult to determine whether the project area supports a high volume of migration relative to other parts of the province.

EARD Section 6.2.4.5 Nocturnal Avian Migration (page 84) states, quote: *"While some level of migration was observed on most nights, a large proportion of the migratory activity observed in each season was limited to a few nights. Also, most activity was observed when favourable tailwinds were present, which are from the southwest in the spring and from the northwest in the fall. These findings are typical to other radar and acoustic studies completed in Nova Scotia (e.g., Peckford and Taylor 2008). Targets were detected at heights above ground level throughout the area sampled (i.e., between 70m and approximately 400). It was also observed that on nights when large numbers of targets were detected during the beginning and middle of the night there tended to be fewer of those targets at lower altitudes (i.e., below 200m).*

During the spring season, when examining nights when large numbers of targets were detected (i.e., when most of the migration occurred) there appeared to be nights when there was relatively higher densities of migration within the rotor swept area (RSA) and others when the relative density of migration was greater above the RSA. This pattern was also observed during the fall, but at somewhat lesser extent/frequency".

The relatively higher densities of migration within the RSA during some nights indicates some level of risk at this site although unquantifiable at this time. Nevertheless, the proponent concludes, quote: *"With proposed mitigation, the residual interactions of the Project with nocturnal migrating birds are not anticipated to be substantive"* (page 155).

Based on these unknowns, the risks should be addressed through further monitoring and mitigation plans. Variables associated with higher migration counts such as dominant wind direction and time of night for spring and fall migration could be used to predict peak migration nights in the future and develop mitigation measures (e.g. turn-off problem turbines during peak winds and time of year).

- As previously discussed with the proponent during baseline planning meeting on April 26, 2021, ECCC-CWS recommends a minimum of two years consecutive baseline data be collected in order to understand variance in flight height (i.e., bird movements) in relation to weather conditions. ECCC-CWS recommends that monitoring be conducted early and pre-construction to quantify risk and inform the EIA. However, if provincial EIA processes don't require this level of baseline prior to decision, year 2 pre-construction monitoring could be started during the construction year to determine the need for additional mitigation measures and inform post-construction monitoring and adaptive management plans.
- Environmental Management & Protection Plan (EMPP)(Appendix O) - Wildlife Interaction (Section 2.8-2.9) states, quote: *"Mitigation that **may** be implemented could include the following..."; "The proponent will **endeavor** to conduct construction activities such as clearing and grubbing during a time period that does not coincide with the time period in which migratory and breeding birds would be in the area" (page 17). "**Efforts** will be made to maintain mature vegetation along the edges of the development area, particularly in riparian areas" (page 20).*

ECCC-CWS recommends clarifying commitments to mitigation measures identified in Table 43 of the EARD and the EMMP to avoid effects on migratory birds, including species at risk and species of conservation concern.

ECCC-CWS recommends scheduling vegetation clearing *outside* of the bird breeding season to avoid disturbing migratory birds and bird SAR. ECCC does not recommend nest searches or sweeps in vegetation prior to clearing during the breeding season.

- Bat SAR critical habitat is located approximately 10km away to the southeast of the project. Hibernating bats are known to travel several hundreds of kilometres between overwintering and breeding locations. However, there were little to no detections of SARA-listed bats during the breeding season, which could indicate maternity roosts are unlikely. The majority of detections were late summer/fall as bats move towards swarming and overwintering sites. It should be noted that all three migratory bat SoCC currently undergoing assessment by COSEWIC were detected at the site.

In analysing acoustic data, ECCC-CWS recommends the analysis of Tri-colored Bat calls separately from *Myotis*. The echolocation calls for Tri-colored Bat can overlap with the frequencies of the two *Myotis* species, however calls in low clutter habitat can be otherwise distinguished. According to placement descriptions of acoustic units, these would be considered low clutter habitats. Note: Since acoustic units were placed in low clutter habitats, it is unlikely to pick up Northern *Myotis*, which are forest interior species.

- During the 2021 field season, the Eastern waterfan (*Peltigera hydrothyria*) - an aquatic lichen listed on Schedule 1 of SARA as Threatened, was identified incidentally within Gleason Brook. ECCC-CWS is concerned with proposed project clearing activities negatively affecting Eastern Waterfan, which are very sensitive to siltation/sedimentation. The 200m buffer suggested as mitigation is likely inadequate to protect this SAR; ECCC-CWS recommends 50m riparian (streamside) buffer of the occupied stream (including streams running into the occupied stream) for 1000m radius around occurrences of Eastern Waterfan. Monitoring and adaptive management plans should include monitoring effects on SAR lichen identified at the site.
- Critical Habitat for the Wood Turtle listed Threatened (SARA Schedule 1 and NS *Endangered Species Act*) is present with the West Branch of the Wallace River, beginning ~ 3km from the nearest proposed WTG location and there is potential for individuals to be found on-site; however, no mitigation was identified in the EARD or EMPP. Wood Turtles can be active from April through October and can travel hundreds of meters from their rivers as they move from their overwintering habitats to their nesting and foraging/thermoregulation habitats.

The Recovery Strategy lists accidental mortality (roads) as threats that could impact individual wood turtles, which are vulnerable given their slow travel speed and how far they range from aquatic habitats in summer. ECCC-CWS recommends the development of mitigation measures to avoid effects on individuals potentially found nesting, and/or travelling to nesting, foraging areas in the forest and overwintering habitats encountered during vegetation clearing activities and operations.

- ECCC-CWS recommends that the provincial department responsible for SAR be contacted for technical expertise and advice on non-migratory bird SAR under their jurisdiction and responsibility (e.g. birds that are not protected by the MBCA such as raptors, bats, reptiles, amphibians, land-mammals, insects, plants and lichen).

Applicable Legislation & Standard Advice

Migratory Birds

Migratory birds, their eggs, nests, and young are protected under the *Migratory Birds Convention Act* (MBCA). Migratory birds protected by the MBCA generally include all seabirds (except for cormorants and pelicans), all waterfowl, all shorebirds, and most landbirds (birds with principally terrestrial life cycles). The list of species protected by the MBCA can be found at <https://www.canada.ca/en/environment-climate-change/services/migratory-birds-legal-protection/convention-act.html>. Bird species not listed may be protected under other legislation.

Under Section 6 of the *Migratory Birds Regulations*, it is prohibited to disturb, destroy, or take a nest or egg of a migratory bird; or to be in possession of a live migratory bird, or its carcass, skin, nest or egg, except under the authority of a permit. It is important to note that under the MBR, no permit can be issued for the harm of migratory birds caused by development projects or other economic activities.

Furthermore, section 5.1 of the MBCA describes prohibitions related to depositing substances harmful to migratory birds:

“5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.

(2) No person or vessel shall deposit a substance to be deposited in any place if the substance, in combination with one or more substances, result in a substance – in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area – that is harmful to migratory birds.”

It is the responsibility of the proponent to ensure that activities are managed to ensure compliance with the MBCA and associated regulations.

Vegetation Clearing

Clearing vegetation may cause disturbance to migratory birds, and may inadvertently cause the destruction of their nests and eggs. Most migratory bird species construct nests in trees (sometimes in tree cavities) and shrubs, but several species nest at ground level (e.g., Common Nighthawk, Killdeer, sandpipers), in hay fields, pastures or in burrows. Some bird species may nest on cliffs or in stockpiles of overburden material from mines or the banks of quarries. Some migratory birds (including certain waterfowl species) may nest in head ponds created by beaver dams. Some migratory birds (e.g., Barn Swallow, Cliff Swallow, Eastern Phoebe) may build their nests on structures such as bridges, ledges or gutters. In developing mitigation measures, it is incumbent on the proponent to identify the best approach, based on the circumstances, to complying with the MBCA. The following should be considered during project planning:

- Avoid scheduling high disturbance activities, such as vegetation clearing, during the regional nesting period for migratory birds. Information regarding regional nesting periods can be found at: <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html>. Some species protected under the MBCA may nest *outside* these timeframes.
- The risk of impacting active nests or birds caring for pre-fledged chicks discovered during project activities *outside* of the regional nesting period can be minimized by measures such as the establishment of vegetated buffer zones around nests and minimization of activities in the immediate area until nesting is complete and chicks have naturally migrated from the area.

- In developing and implementing a wildlife management plan, preventative measures to minimize the risk of impacts on migratory birds should be considered (see “Avoiding harm to migratory birds: guidelines to reduce the risk to migratory birds” at <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html>).

Nest Searches

ECCC-CWS generally does not recommend nest searches or sweeps in vegetation prior to clearing during the breeding season. Nests in complex habitat are difficult to locate, and adult birds avoid approaching their nests in a manner that would attract predators to their eggs or young. In many circumstances, harm to migratory birds is still likely to occur even when active nest searches are conducted prior to development activities, except when the nests searched are known to be easy to locate without disturbance (e.g. previously cleared area, simple habitats, low vegetation).

Some ground nesting species of migratory birds, including the threatened Common Nighthawk, may be attracted to previously cleared areas for nesting in the spring and summer if there is a delay between clearing activities (e.g. clearing conducted in the fall/winter and construction scheduled in the spring and summer).

Nest surveys may be carried out successfully by experienced observers using scientific methodology in the event that activities would take place in simple habitats (often in human-made settings) with only a few likely nesting areas or a small community of migratory birds. Examples of simple habitats include:

- An urban park consisting mostly of lawns with a few isolated trees;
- A vacant lot with few possible nest sites;
- A previously cleared area where there is a lag between clearing and construction activities and where ground nesters may have been attracted to nest in cleared areas or in stockpiles of soil; or,
- A structure such as a bridge, a beacon, a tower or a building (often chosen as a nesting spot by robins, swallows, phoebes, Common Nighthawk, gulls and others).

Nest searches can also be considered when looking for:

- Conspicuous nest structures (such as nests of Great Blue Herons, Bank Swallows, Chimney Swifts);
- Cavity nesters in snags (such as woodpeckers, goldeneyes, nuthatches); or,
- Colonial-breeding species that can be located from a distance (such as a colony of terns or gulls).

Should any nests or unfledged chicks be discovered, protection with an appropriate-sized buffer is expected. Note: Nests should not be marked using flagging tape or other similar material as this increases the risk of nest predation. ECCC CWS can be contacted for further advice on bird monitoring and/or mitigation if a nest is found.

Transmission lines

Transmission lines have the potential to harm, injure, or kill migratory birds through increasing risks of collision and electrocution. The proposed placement of above-ground transmission lines should consider areas used as flight paths by migratory birds (e.g., during migration; travelling from nesting to foraging areas, along streams used by waterfowl). ECCC-CWS recommends the following beneficial management practices to avoid potential harm to migratory birds associated with transmission lines:

- Avoid building transmission or distribution lines over, adjacent, or near areas where birds are known to congregate or move, including:
 - Important breeding, staging, moulting areas;

- Breeding colonies; and
- Between breeding and foraging areas.
- Design “avian-safe” configurations to reduce the risk of electrocutions, including:
 - Providing sufficient separation between energized phase conductors and between phases and grounded hardware;
 - Insulating exposed surfaces in high-risk areas;
 - Installing perch-management (e.g. perch guard) devices on poles; and
 - Removing or minimizing vegetation around poles and lines.
- Install measures on lines that reduce the risk of collisions:
 - Provide minimal vertical separation between lines;
 - Use self-supporting structures to reduce the number of guy wires; and
 - Use line-marking devices to increase the visibility of the lines.

Species at Risk

The section 32 of the *Species at Risk Act* (SARA) “General prohibitions” apply to this project. In applying the general prohibitions, the proponent, staff and contractors, should be aware that no person shall:

- kill, harm, harass, capture or take an individual species at risk (SAR);
- possess, collect, buy, sell or trade an individual, or any part or derivative;
- damage or destroy the *residence* of one or more individuals.

General prohibitions only apply automatically:

- on all federal lands in a province,
- to aquatic species anywhere they occur,
- to migratory birds protected under the *Migratory Birds Convention Act* (MBCA) 1994 anywhere they occur.

Section 33 of SARA prohibits damaging or destroying the residence of a listed threatened, endangered, or extirpated species. For migratory bird SAR, this prohibition immediately applies on all lands or waters (federal, provincial, territorial and private) in which the species occurs.

In federal environmental assessment (EA), ss.79(2) of SARA requires that person(s) responsible for an EA to: 1) identify adverse effects on all listed species 2) if the project is carried out, ensure that measures are taken to avoid or lessen those effects; and, 3) monitor them. *While there is not a federal EA for this project, ECCC advocates a similar approach for the provincial EIA.*

For species which are not listed under SARA, but are listed under provincial legislation only, or that have been assessed and designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), it is best practice to consider these species in EA as though they were listed under SARA.

Wetlands

The *Federal Policy on Wetland Conservation* (FPWC) is applicable to any federal department exercising a power, duty, or function that would permit the carrying out of the project or associated activities. The policy recognizes the importance of wetlands to the environment, the economy and human health, and promotes a goal of no-net-loss of wetland functions. In support of this goal, the FPWC identifies the importance of planning, siting and designing a project in a manner that accommodates a consideration of mitigation options in a hierarchical sequence - avoidance, minimization, and as a last resort, compensation (e.g. conservation allowances). If federal funding is proposed for this project, if the project is located on federal lands, or if federal decisions/approvals related to effects on wetlands are required, then the FPWC would apply.

For those potentially affected wetlands where the FPWC would be applicable, and avoidance is deemed not possible, a detailed description of potential effects, and of the reasons why avoidance and minimization of impacts were determined to not be possible should be provided. The mitigation measures and monitoring plan, as well as a proposed compensation plan, should be consistent with those proposed for other projects in Atlantic Canada.

Should there be no triggers for the FPWC, ECCC-CWS recommends the goals of the policy be considered in wetland areas as a beneficial management practice.

A copy of the FPWC can be found at: <http://publications.gc.ca/pub?id=9.686114&sl=0>.

Additional Comments

- EARD Part 7, section 7.2.4 (page 151), indicates that Evening Grosbeak suitable breeding habitat exists in the “*non-forested land in the PDA*”; it should be clarified that this species is a forest-associated bird and nest in trees.
- SAR observations should be submitted to the Atlantic Canada Conservation Data Centre, directions on how to contribute data can be found at: <http://accdc.com/en/contribute.html>.
- Proponents are also requested to make available data to the Canadian Wind Energy Association (CanWEA) database at: <https://canwea.ca/>

I trust the above comments will be of assistance. Please feel free to contact me at @ec.gc.ca if you have any questions or concerns.

Yours truly,

Environmental Assessment
Environmental Protection Operations Directorate – Atlantic



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

2021

GUIDELINES FOR WILDLIFE RESPONSE PLANS

Canada 

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Aussi disponible en français

EXECUTIVE SUMMARY

Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS) is responsible for the management and conservation of Wildlife under its jurisdiction. The *Guidelines for Wildlife Response Plans* outline the rationale, objectives, and process for developing, implementing and evaluating the efficacy of Wildlife response planning for Pollution and Non-Pollution Incidents. This document supports the standardization of the planning process according to ECCC-CWS's recommendations. The purpose of this document is to guide governments, Indigenous organizations, industry, Response Organizations, and other stakeholders in developing Wildlife Response Plans that consider all aspects of planning throughout the full life cycle of an incident with regards to Wildlife specific to ECCC-CWS's mandate.

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LIST OF ACRONYMS

CWA	<i>Canada Wildlife Act, 1985</i>
CWS	Canadian Wildlife Service
ECCC	Environment and Climate Change Canada
ECCC-CWS	Environment and Climate Change Canada's Canadian Wildlife Service
ICP	Incident Command Post
ICS	Incident Command System
IPIECA	International Petroleum Industry Environmental Conservation Association
MBCA	<i>Migratory Birds Convention Act, 1994</i>
MBR	<i>Migratory Birds Regulations</i>
MBSR	<i>Migratory Bird Sanctuary Regulations</i>
NWA	National Wildlife Area
RP	Responsible Party
SARA	<i>Species at Risk Act, 2002</i>
WRP	Wildlife Response Plan
WRO	Wildlife Response Organization

DEFINITIONS

Chain of Custody: A written record for a legal sample documenting the continuity by tracing the possession of the sample from the point of collection through introduction into evidence.

CWS Co-ordinator: A person who leads and implements regional Wildlife Emergency preparedness and response on behalf of ECCC-CWS and represents ECCC-CWS's policies and interests when liaising and integrating with other federal and provincial/territorial government departments, Indigenous governments and organizations, and stakeholders involved in the response during Wildlife Emergencies. CWS Co-ordinators may also fulfill some of the on-site roles of responder.

CWS Responder: Emergency response personnel that provide on-site support on behalf of ECCC-CWS, as directed by the CWS Co-ordinator, during Wildlife Emergencies.

Environmental Emergency: Any uncontrolled or unexpected incident involving the release (or the likelihood thereof) of a polluting substance into the environment that results or may result in an immediate or long-term harmful effect on the environment, or constitutes or may constitute a danger to human life or health. It may be caused by an industrial activity, natural emergency or by a wilful act.

Field Stabilization Site: Facility that provides initial triage, care and/or euthanasia as well as short-term holding (sometimes overnight) for Wildlife prior to transport to an Oiled Wildlife Rehabilitation Centre. It is not meant for washing oiled Wildlife and not designed for long-term care.

Incident Command: Responsible for overall management of the incident and consists of the Incident Commander, either single or unified command, and any assigned supporting staff.

Incident Commander: The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. The Incident Commander has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

Lead Agency: The governmental authority that regulates or has legislative authority over the responsible parties' response and is responsible for overseeing the appropriateness of the response.

Migratory Bird: As defined in the [Migratory Birds Convention Act, 1994](#), a Migratory Bird referred to in the Convention, and includes the sperm, eggs, embryos, tissue cultures and parts of the bird of species listed under Article 1 of the Convention (Government of Canada 2017).

National Environmental Emergencies Centre (NEEC): Environment and Climate Change Canada's 24/7 focal point for pollution-related emergencies, providing technical/scientific advice, assistance and coordination to the Lead Agency, as well as management of an incident when required.

National Wildlife Area: A protected area created under the *Canada Wildlife Act* that contains nationally significant habitats for plants and animals and that is managed for the purposes of wildlife conservation, research and interpretation.

Non-Pollution Incident: An uncontrolled or unexpected Wildlife injury or mortality event other than a Pollution Incident.

Oiled Wildlife Rehabilitation Centre: Facility used for the triage, stabilization, cleaning, pre-release conditioning and/or euthanasia of oiled Wildlife. The centre may be a permanent purpose-built facility, an existing Wildlife rehabilitation centre, a mobile facility, or a temporary facility established during an incident.

Pollution Incident: The release or deposit of a substance that is harmful to Wildlife into an area or waters that are frequented by Wildlife or into a place from which the harmful substance may enter an area or waters frequented by Wildlife.

Resource Agency: Any department or agency, other than the Lead Agency, that has jurisdiction or interest in the response, which provides support to the Lead Agency.

Response Organization: Any qualified person or organization that has been certified and designated by the Minister of Transport to carry out emergency response activities (as per the revised *Canada Shipping Act* (2001)). In Canada, there are four Response Organizations as follows: Atlantic Emergency Response Team, Eastern Canada Response Corporation Ltd., Western Canada Marine Response Corporation, and Point Tupper Marine Services Ltd.

Responsible Party: Any person or organization who might be responsible for the source or cause of an environmental emergency and/or a Wildlife Emergency.

SARA-listed Species: A species listed on the [List of Wildlife Species at Risk set out in Schedule 1](#) of the *Species at Risk Act* (SARA).

Species at Risk: As defined in the [Species at Risk Act \(S.C. 2002, c.29\)](#), means an Extirpated, Endangered or Threatened species, or a species of Special Concern.

Unified Command: An application of the Incident Command System, used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the Unified Command to establish a common set of objectives and strategies and a single Incident Action Plan.

Wildlife: In this document, "Wildlife" is used to refer to the terms Migratory Birds as defined under the *Migratory Birds Convention Act*, and listed Species at Risk as those terms are defined under the *Species at Risk Act* for species falling within the jurisdiction of the Minister of Environment and Climate Change (with the exception of individuals of SARA-listed Species that are located on lands administered by Parks Canada). This term also refers

to all wild species occurring in the National Wildlife Areas set out on Schedule I of the [Wildlife Area Regulations \(C.R.C., c. 1609\)](#).

Wildlife Emergency: A Pollution or Non-Pollution Incident that results or may result in an immediate and/or long-term harmful effect on the life or health of Wildlife and/or their habitat.

Wildlife Response Organization: Organizations that provide expertise, capabilities and trained personnel to undertake one or several aspects of response, including planning, implementation and reporting of activities related to Wildlife Emergencies. Wildlife Response Organizations (or representatives thereof) are authorized under applicable federal, provincial, and/or territorial legislation to capture, transport, clean, rehabilitate, euthanize, and release Wildlife.

Wildlife Response Plan: A document that outlines the initial and ongoing Wildlife-related strategies that are needed to support any Wildlife response objectives that may occur at the onset of a Pollution or Non-Pollution Incident.

1.0 INTRODUCTION

Environmental protection legislation in Canada at the federal, provincial or territorial level contains provisions to have approved contingency plans in the event of an environmental emergency for construction, operation or decommissioning activities that may impact the environment. Projects undergoing an environmental assessment may include additional conditions upon approval to develop and implement an environmental protection plan. All contingency plans/environmental protection plans for which a threat to Wildlife is identified may have specific sections dedicated to Wildlife response in order to be in compliance with applicable federal, provincial, or territorial legislation.

Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS) oversees and/or leads Wildlife Emergency response activities in association with Environment and Climate Change Canada (ECCC)'s responsibilities under the *Migratory Birds Convention Act, 1994* (MBCA) and its regulations (*Migratory Birds Regulations* (MBR) and *Migratory Bird Sanctuary Regulations* (MBSR)), the *Species at Risk Act, 2002* (SARA), the *Canada Wildlife Act, 1985* (CWA), and *Wildlife Area Regulations*. Through these pieces of legislation, ECCC-CWS is responsible for the management and conservation of all Migratory Birds and Species at Risk under its jurisdiction (hereafter "Wildlife") and how they are managed during a Pollution or Non-Pollution Incident. In the case of Migratory Birds, including SARA-listed Migratory Bird species, this document applies to wherever they are found in Canada. For other SARA-listed Species, this document applies to individuals that are located on federal lands in the provinces, on lands under the authority of the Minister of Environment and Climate Change in the territories, or in the exclusive economic zone or on the continental shelf of Canada (with the exception of individuals of SARA-listed Species under the jurisdiction of Parks Canada or Fisheries and Oceans Canada) (see also Section 2.2 for additional details). For greater clarity, this document does not apply to any wildlife species, including aquatic species (which include fish, marine mammals, marine turtles, and marine plants, as defined in Sections 2 and 47 of the [Fisheries Act](#)), located on any lands or in any waters administered by Parks Canada or under the jurisdiction of Fisheries and Oceans Canada. The CWA and *Wildlife Area Regulations* broaden the responsibility of ECCC-CWS to include habitats and all wild species within designated National Wildlife Areas (NWAs).

1.1. SCOPE

Wildlife Emergencies, in the context of this document, include Pollution or Non-Pollution Incidents that result or may result in an immediate and/or long-term harmful effect on the life or health of Wildlife and/or their habitat. Pollution Incidents with potential harm to Wildlife are prohibited under the MBCA and SARA. Non-Pollution Incidents are uncontrolled or unexpected Wildlife injury or mortality events other than a Pollution Incident, which may include things such as disease outbreaks, mass strandings, or other unexplained Wildlife deaths. The degree to which any Pollution or Non-Pollution Incident may be deemed a Wildlife Emergency is dependent on a number of factors such as the scope and severity of the incident (e.g. numbers of animals or area of habitat impacted), the likelihood of an incident expanding, potential for impacts to Species at Risk, and potential link

to human health, among other factors. The appropriate level of response expected to incidents should be reasonable and commensurate with the risks. ECCC-CWS is responsible for informing various aspects of response to Wildlife Emergencies, including the development and implementation of Wildlife response strategies and activities, as outlined in the *National Policy on Wildlife Emergency Response* (ECCC-CWS 2021).

During an incident, Responsible Parties (RPs) must demonstrate their ability to safely, efficiently, and effectively respond in a manner that incorporates measures designed to avoid or minimize harm to Wildlife, while managing the public's understanding of response decisions and activities. In the absence of an RP during an incident (e.g. mystery spill), or for planned operations with a potential to impact Wildlife (e.g., oil removal from wreckages), the Lead Agency is deemed responsible for implementing Wildlife response appropriate to that incident.

Wildlife Response Plans (WRPs) are documents that formalize the guidance and strategy for responding to incidents with potential to impact Wildlife. A WRP should include the following elements:

- The objectives of implementing a WRP with respect to managing or preventing harm to Wildlife and its habitat during a Pollution or Non-Pollution Incident
- A description of the incident management structure for Wildlife response and how it is integrated into an incident-specific response command system (e.g., an Incident Command Post (ICP))
- Background information on responsibilities of the RP as well as regulatory requirements, permits, and authorizations to engage in Wildlife response activities
- Information on Wildlife and its habitat known or potentially impacted by an incident
- A description of Wildlife response procedures to be implemented immediately following an incident (e.g., deterrence and dispersal, surveillance)
- A description of the operational structure and implementation of ongoing Wildlife response efforts throughout all phases of an incident
- Procedures for information management and communication, including to key stakeholders (e.g., local communities, hunters)
- Health and safety, security, and training requirements for personnel, equipment, and facilities required to support Wildlife response activities

The purpose of this document is to guide federal, provincial/territorial and Indigenous governments, Indigenous organizations, industry, Response Organizations, and other stakeholders in developing a WRP that considers all aspects of planning throughout the full lifecycle of an incident. This document outlines the attributes that are necessary for effective implementation of Wildlife Emergency response. Proponents should keep in mind that the guidance provided within this document is developed by ECCC-CWS for species' protection within their mandate. As such, proponents developing comprehensive WRPs should also consult with other federal and provincial/territorial agencies which are responsible for other wildlife (e.g., mammals, reptiles, amphibians, fish and some bird species not under the jurisdiction of the MBCA).

2.0 REGULATORY REQUIREMENTS

2.1 APPLICABLE LEGISLATION

ECCC-CWS is responsible for ensuring that all Wildlife response activities are coordinated, enacted, and carried out in compliance with applicable federal law. Federal legislation applicable to Wildlife response includes:

- **Migratory Birds Convention Act (MBCA):** Section 5 of the MBCA prohibits the deposit of harmful substances into waters or areas frequented by Migratory Birds, unless authorized under the *Canada Shipping Act*, or the substance is of a type and quantity, and the deposit is made under conditions, authorized under an Act of Parliament other than the [Canada Shipping Act, 2001](#) or authorized for scientific purposes by the Minister of Environment and Climate Change. Section 6 of the *Migratory Birds Regulations* (MBR) made under the MBCA prohibits the disturbance, destruction, taking of a nest, egg, nest shelter, eider duck shelter or duck box of a Migratory Bird, or anyone from having in his possession a live Migratory Bird, or a carcass, skin, nest or egg of a Migratory Bird. The MBR regulate the hunting of Migratory Birds and other circumstances under which the killing, capturing of and harming of Migratory Birds may be authorized. The *Migratory Bird Sanctuary Regulations* (MBSR) further regulate activities related to Migratory Birds and their habitats within designated Migratory Bird Sanctuaries. Permits may be issued to authorize the permit holder to undertake activities that are otherwise prohibited (Government of Canada 2017).
- **Species at Risk Act (SARA):** SARA permits are required for activities affecting a SARA-listed Species, any part of its critical habitat or the residences of its individuals. For the purpose of SARA, an “activity affecting” means any activity prohibited under the Act or its regulations. Section 73 of SARA authorizes the issuance of permits for activities affecting a SARA-listed Species, any part of its critical habitat or the residences of its individuals, and sets out conditions that must be met before a competent minister can issue a permit. SARA prohibitions apply to any species listed on Schedule 1 as Threatened, Endangered or Extirpated, but do not apply to species listed as Special Concern.
- **Canada Wildlife Act (CWA):** The CWA allows for the establishment of National Wildlife Areas (NWAs), which protect wildlife habitat in Canada. The *Wildlife Area Regulations* identify all NWAs and prohibit certain activities from occurring within NWAs, but Section 3.4 of the *Wildlife Area Regulations* provides exemptions for the prohibited activities within the NWAs in the event of an emergency response effort (e.g., ensuring public safety and national security). The Scott Islands marine NWA has its own regulations, *Scott Islands Protected Marine Area Regulations*, which also provide exemptions for the prohibited activities in the event of an emergency response effort.

Further to these Wildlife specific pieces of legislation, other environmental protection legislation in Canada at the federal, provincial or territorial level contain additional provisions which require approved contingency plans in the event of an environmental emergency for construction, operation or decommissioning activities that may impact the environment. Projects undergoing an environmental assessment may require the development and implementation of an environmental protection plan, conditional upon approval.

Where contingency plans/environmental protection plans identify a threat to Wildlife, ECCC-CWS considers a WRP to fulfill some of these requirements if contingency and emergency response planning efforts adequately address the identified Wildlife issues.

ECCC-CWS recommends that strategic WRPs be developed prior to incidents for activities or areas where the potential for, or associated risk of a Wildlife Emergency is high (see Section 3.2 for more details). These strategic plans may be standalone plans or components (or annex) to overarching response plans (e.g., operators’

facilities response plans). Incident-specific WRPs are routinely developed as part of the ICP to standardize and document Wildlife response activities during an incident (Section 3.2). Both approaches are in keeping with international standards for Wildlife response planning (International Petroleum Industry Environmental Conservation Association (IPIECA) 2014).

2.2 PERMITS AND AUTHORIZATIONS

As part of Wildlife Emergency response, Wildlife Response Organizations (WROs) are often responsible for undertaking response activities involving direct interaction with Wildlife including the capture, collection, transport, and care/rehabilitation, release, and/or euthanasia of impacted Wildlife. Some WROs operating in Canada may retain annual permits that allow certain levels of immediate response, assuming permits are renewed and standards are maintained. Qualifications of these organizations to perform certain activities are assessed during the permit application process. Otherwise, a WRO will work with ECCC-CWS to obtain incident-specific permits for aspects of Wildlife Emergency response requiring authorizations. Other qualified individuals, working for or contracted by WROs, Response Organizations, the RP, or government agencies, may also apply for permits, as required. Permit and authorization requirements are summarized in Table 1.

ECCC-CWS recognizes deterrence and dispersal as a beneficial practice during Wildlife Emergencies. If proponents plan to use deterrence and dispersal tactics during a Wildlife Emergency, this should be described in a WRP (Section 4.5.5), and ECCC-CWS should be consulted to provide guidance on effective tactics for species, seasons, and habitats.

For most of the activities listed in Table 1, activities affecting SARA-listed Migratory Birds may be permitted through the issuance of SARA compliant MBCA-permit (Scientific Permit or Banding Permit). It is important to note that a SARA permit cannot be issued for an activity that would have a prohibited effect on a listed Migratory Bird for which a permit is not available under the MBCA and its regulations. For activities affecting SARA-listed Species, other than a Migratory Bird, permits may be issued under Section 73 of SARA. Specifically, ECCC-CWS SARA permits are required for SARA-listed Species that, a) are located on federal lands in the provinces, b) are located on lands administered by the Minister of Environment and Climate Change in the territories; c) are located in the exclusive economic zone or on the continental shelf of Canada; or d) are the subject of an order of the Governor in Council under SARA, including an order pertaining to the species' critical habitat or habitat that is necessary for the survival or recovery of the species (except for species under the jurisdiction of Parks Canada or Fisheries and Oceans Canada). Table 1 outlines examples of activities that require permits for SARA-listed Species. For additional clarification on the permitting provisions and how to apply for a SARA permit, please consult the *Species at Risk Public Registry Policies and Guidelines* (Government of Canada 2020). For emergency response activities occurring on Migratory Bird Sanctuaries, permits are required on a site-specific basis (Table 1). Some types of activities that require authorization on Migratory Bird Sanctuaries include carrying firearms and other weapons, and possession/handling of any animal, carcass, skin, nest, egg or part of

those things. These activities may be authorized by permits issued under the MBSR.

With respect to NWAs, a permit is not required to carry out emergency relief activities, as per Section 3.4 of the *Wildlife Area Regulations*. With respect to the Scott Islands marine NWA, a permit is not required to carry out emergency relief activities, as per Section 3 of the *Scott Islands Protected Marine Area Regulations*.

Table 1. Wildlife-related Permits and Authorization Requirements that may be issued by ECCC-CWS¹ during a Wildlife Emergency.

Wildlife	Permit Type	Examples of Activities that Require Permits or Authorization	Permit Holders
Migratory Birds (including SARA-listed Species)	Scientific (for collection)	<ul style="list-style-type: none"> • Possession • Transportation • Collection/capture • Treatment/rehabilitation/care • Euthanasia 	Individuals of WROs are generally permitted for most activities. Subcontractors or independent contractors may be permitted for specific activities through one or several permits.
	Scientific (for capture and banding)	<ul style="list-style-type: none"> • Capturing • Banding • Using auxiliary markers (e.g., color bands and GPS transmitters) • Collection of biological samples 	
	SARA Section 73/74 permit	<ul style="list-style-type: none"> • Destruction of protected critical habitat • Damage or destruction of any critical habitat that could result in harming individuals of a SARA-listed Migratory Bird • Damage or destruction of residences² of a SARA-listed Migratory Bird 	SARA permits are issued on site and situation-specific basis and must be discussed early in response activities, as appropriate.
Any SARA-listed Species other than Migratory Birds (on any federal land including NWA, and any land affected by an order or regulation made under SARA)	SARA Section 73 permit	<ul style="list-style-type: none"> • Collection, taking, possession • Transportation/relocation • capture/markings • Treatment/rehabilitation/care • Euthanasia • Harassing, including deterrence and dispersal • Exclusion barriers / trenches • Damage or destruction of critical habitat • Damage or destruction of residences² • Any activity specifically prohibited by a Section 80 emergency order, or by a regulation made under SARA 	SARA permits are issued on a site and situation-specific basis and must be discussed early in response activities, as appropriate.
Migratory Bird Sanctuaries	Scientific (Collection)	<ul style="list-style-type: none"> • Operations occurring on Migratory Bird Sanctuaries³ 	Migratory Bird Sanctuary ³ permits are issued on a site-specific basis and will be developed early in response activities.

Note:

¹ The permitting process and the types of activities requiring permits is subject to change periodically as regulations are updated. Individuals/organizations should seek up to date advice on permitting from ECCC-CWS permit officers.

² For the purpose of SARA, "residence" means a dwelling-place, such as a den, nest or other similar area or place, that is occupied or habitually occupied by one or more individuals during all or part of their life cycles, including breeding, rearing, staging, wintering, feeding or hibernating.

³ Permits issued under the MBSR.

3.0 ELEMENTS OF WILDLIFE RESPONSE PLANNING

3.1 WILDLIFE RESPONSE WITHIN THE INCIDENT COMMAND SYSTEM

Any activities with potential to result in a Wildlife Emergency may warrant immediate implementation of response actions. Guidance on Wildlife response concerns and actions may be provided through the Environmental Emergencies Science Table, which is chaired by ECCC's National Environmental Emergencies Centre (NEEC). Increasingly, within industries or the Government of Canada, emergency incidents are managed and structured using the Incident Command System (ICS) approach, including the establishment of an ICP for major incidents. It is therefore recommended to stakeholders to use ICS for emergency response. Wildlife experts, such as ECCC-CWS, may be situated in the Environmental Unit of the Planning Section within an ICP, a role which may be titled Wildlife Technical Specialist. The Environmental Unit would develop and refine response plans as well as incident-specific tactics. Depending on the scale of the incident and scope of potential or actual impacts to Wildlife, ECCC-CWS may assist in establishing a Wildlife Branch which is typically situated within the Operations Section of the ICP (IPIECA 2014; Figure 1). An Environmental Unit Liaison position may also be staffed in the Wildlife Branch (Figure 1) to facilitate the dissemination of planning and operational information between the Environmental Unit and the Wildlife Branch. WRPs may also be developed and used for Wildlife Emergencies that are not managed with an ICP or a Wildlife Branch.

The WRP should identify, schematically, the structure and function of the Wildlife Branch and its integration into the Operations Section of the ICP, as well as how it liaises with other ICP sections (e.g., Planning). The WRP should anticipate structuring and scaling the Wildlife Branch according to how the incident is expected to proceed.

It is essential to identify and implement Wildlife response activities within the first 24, 48, and 72 hours of an incident. These response activities are formalized within a WRP to structure and guide response activities. The RP is responsible for the development of WRPs, to address all of the procedures and strategies required to mount an effective Wildlife response. During an incident, ECCC-CWS will provide advice to support the Wildlife response consistent with the components outlined in Section 4. However, the RP typically leads the development of a WRP and may contract the WRO to develop it on their behalf to ensure the WRP is operationally feasible. While ECCC-CWS does not have the authority to assign, recognize, or approve specific WRPs, ECCC-CWS may provide advice to the Lead Agency, the RP, and WROs regarding the direction and content of a WRP, based on available science and expertise. A WRP does not necessarily equate with statutes and regulations; rather, developing a WRP identifies actions that support compliance with the MBCA, MBR, MBSR, SARA, and the CWA. A WRP receives formal approvals within an ICP through sign-off by the Incident Command and RP.

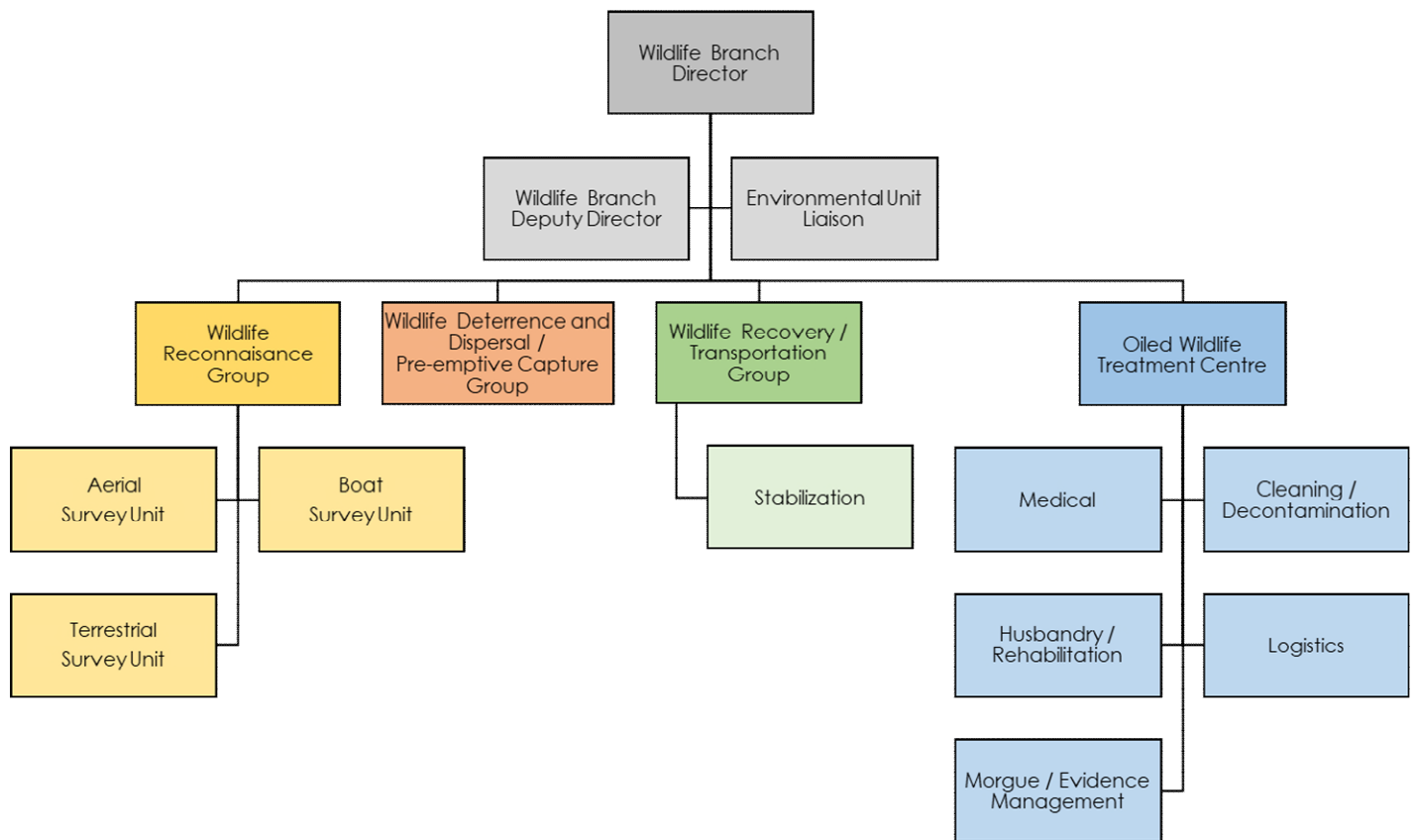


Figure 1. Example of a scalable Wildlife Branch within an ICS setting (adapted from IPIECA 2014).

3.2 TYPES OF WILDLIFE RESPONSE PLANS

There are two main types of WRPs, strategic response plans and incident-specific response plans (described below). ECCC-CWS may support the development of various WRPs, including providing technical expertise, permit support, and incident-specific guidance. However, WRP approvals are the responsibility of the RP and the Incident Command (or Unified Command).

3.2.1 Strategic Response Plans

Strategic response plans are often created for specific activities, where there is a recognized risk of a Wildlife Emergency, or for designated areas or specific locations which may warrant special planning considerations (e.g. protected areas, geographic response areas). Strategic WRPs describe the likely activities to be enacted during a response, but may lack incident-specific actions or tactical plans which may only be developed once the parameters of the incident are known or tested. Thus strategic WRPs are refined and adapted throughout the incident based on incident-specific considerations (Hebert and Schlieps 2018).

Activity-specific Plans: Accidents or malfunctions that may occur at certain types of facilities or infrastructure (e.g., oil-handling facilities, offshore petroleum platforms, liquid natural gas marine terminals), projects (e.g., exploratory drilling), or routine activities (e.g., transport of oil by rail or vessel) have an associated increased risk

for Wildlife Emergencies. However, given the static nature of these sites, the characteristics of a Pollution or Non-Pollution Incident and the procedures for mounting a response can be anticipated to a certain degree. Industries or other stakeholders determine whether it is appropriate to develop strategic WRPs to structure a response that aligns with internal policies and procedures (e.g., industry best practices, contract with WROs), and incorporates site-specific considerations for implementing effective response actions (e.g., pre-determined Wildlife rehabilitation areas, standardized methods for Wildlife surveillance). As with other types of plans, activity-specific WRPs need to be adaptable and scalable, depending on the nature of the incident. Activity-specific WRPs should be reviewed and revised on a regular basis to accommodate changes to infrastructure, activities, and operational procedures, and to reflect current guidance on Wildlife response planning. In cases where activity-specific plans are identified for development, ECCC-CWS can review and provide recommendations on WRP components based on site-specific information.

An example of an activity-specific WRP is one that is developed as part of planned vessel salvage or oil recovery activities, where there is potential for impacts to Wildlife. In the case of a planned salvage, the initial draft of the WRP should be developed and approved in advance of initiating salvage activities. As with other incidents, the WRP will evolve over the course of the salvage to address specific response conditions.

Area-specific Plans: Wildlife Emergencies can also occur in land tenures or aquatic areas of significant biological importance, with specific management objectives, and/or where there is otherwise concerted interest in having a response plan in place (e.g., protected areas, geographic response areas). As with activity-specific plans, the procedures for mounting a response to a Pollution or Non-Pollution Incident may be anticipated and planned for to a certain degree. Managers of these areas may determine it is appropriate to develop strategic WRPs to structure a response that aligns with local or regional management objectives. Stakeholders' input that incorporates site-specific considerations for implementing effective response actions should be considered. Area-specific WRPs need to be adaptable and scalable, depending on the nature of the incident. Managers of these areas need to identify zones of higher sensitivity that are to be protected and those of lower sensitivity to allow an efficient response (access points for machinery, ICP, response personnel, etc.). WRPs should be reviewed and revised on a regular basis. In cases where area-specific plans are identified for development, ECCC-CWS can review and provide recommendations on WRP components based on site-specific information.

3.2.2 Incident-specific Response Plans

The most common type of WRP is typically one that is developed in the early phases of a Wildlife Emergency as part of the ICS and is specific to the incident (IPIECA 2014). Incident-specific WRP, sometimes referred to as Wildlife Management Plans, take into account the actual circumstances of a specific incident, particularly factors related to the scope of the incident (e.g., quantity, location and dispersion of pollution), environmental considerations (e.g., weather), and seasonal considerations (e.g., Wildlife abundance and distribution). A comprehensive strategic WRP may fulfil most of the information needs for an incident-specific plan, but might require further details on implementation given the available resources, weather, and time of year.

For incidents where an RP has been identified, the RP has the first responsibility for initiating effective countermeasures to a Wildlife Emergency and has financial responsibility for damage and cleanup costs incurred during an incident. Upon the establishment of an ICP, the RP and Incident Command will outline planned Wildlife response activities. ECCC-CWS will contribute to the development of an incident-specific WRP by participation in the Wildlife Branch (or Environmental Unit) of the ICP, or by reviewing plans and providing expert advice to individuals working within the ICP. Here, ECCC-CWS may provide guidance on the scope of a WRP and direct the RP, or its contracted response personnel, towards resources that support its development. In particular, ECCC-CWS will inform on any Wildlife response activities that require authorization (i.e., permits), or technical expertise. ECCC-CWS will review and make recommendations on a WRP and subsequent iterations, but the Incident Command ultimately approves the plan. For incidents where an RP has not been identified, ECCC-CWS may contribute to the development and implementation of a WRP.

3.2.3 Plan Development

It is important to recognize that Wildlife Emergency response and WRP development is an iterative process that will evolve as an incident unfolds. A WRP should be structured and implemented in a way that it is adaptable and scalable over the course of an incident, and may accommodate needs for post-incident monitoring.

The Wildlife Branch will determine the appropriate level of response based on specific needs of the incident. The need for greater or fewer resources, equipment, facilities, and response personnel will be based on incident-specific factors including:

- the present and future geographic extent of the incident
- the species, numbers of individuals, and types of habitats present in the geographic extent
- the known or potential risk for injury or mortality
- the timeframe for which incident response actions are implemented

Plans that are developed prior to an incident may also consider tiered response planning to appropriately manage various degrees or types of Wildlife Emergencies. *Wildlife Response Preparedness* (IPIECA 2014) describes tiered response planning in more detail.

3.3 HABITAT CONSIDERATIONS FOR RESPONSE PLANNING

The various habitats occupied by Wildlife require different considerations with regards to response planning. For emergency response involving pollutants such as oil, the key variable in a response plan is the presence of bodies of water that may act as a carrier for contaminants discharged into the environment, causing contaminants to spread over large areas where Wildlife may become affected. In Canada, habitats occupied by Wildlife requiring similar response approaches during an emergency response involving contaminants can be grouped into the following three main landscape categories: a) marine and open fresh water, b) aquatic, and c) terrestrial.

3.3.1 Marine and Open Fresh Water

Pollution Incidents that occur in the marine environment or large freshwater bodies of open water tend to affect Wildlife that spend a high proportion of their time on the water, such as alcids and waterfowl. The effect on Wildlife is influenced by the location of the incident, persistence and toxicity of the contaminants, and duration of the incident. In seasons and areas of high concentrations of vulnerable Wildlife, the number of impacted individuals may reach the thousands, even when a relatively low volume of contaminant is discharged. Affected Wildlife may eventually come ashore either alive or dead, requiring systematic search and collection effort on accessible shorelines. Contaminants discharged offshore may eventually travel inshore and reach the coastline, affecting other Wildlife communities associated with aquatic habitats (see Section 3.3.2). A Wildlife response in the marine and open fresh water landscape focuses on preventing Wildlife from utilizing the affected area, recovering affected individuals if they come to shore, and assessing the impact of the incident on Wildlife (Table 2).

3.3.2 Aquatic Habitats

For the purpose of this document, aquatic habitats consist of any land saturated with water long enough to take on the characteristic of an ecosystem and promote aquatic processes, such as salt marshes, wetlands, fens, lagoons, and bogs, but also include small ponds, creeks, rivers, tidal flats, marshes, and reed beds, or any combination of such categories. Unlike the other landscapes, aquatic habitats are vulnerable to activities that occur both on land and in the marine environment. During a response to a Pollution Incident, aquatic habitats are priority areas for protection as they can trap large quantities of contaminant, are difficult to clean, and can take years or decades to recover due to the retention of contaminants in these environments. Because of the large variety of aquatic habitats and biotypes that they accommodate, removing contaminants from the environment and operationalizing a Wildlife response may be complex. Rivers will carry and spread pollutants over potentially large distances, and shorelines may be inaccessible. Wildlife diversity may be high and include a mix of aquatic (waterfowl, shorebirds, inland waterbirds) and terrestrial (landbirds) Migratory Bird species and Species at Risk from a variety of groups, including mammals, birds, amphibians, reptiles, plants, and fish. Additional survey effort and resources may be required for reconnaissance and surveillance surveys as well as collecting affected individuals. Small lakes and ponds may be attractive for large concentrations of Migratory Birds during migration, molting, and staging periods and may require extended resources to exclude Wildlife from the area. In addition to deterrence activities, a Wildlife response in aquatic habitats may also focus on prioritizing protection and containment strategies to minimize the spread of contaminants to key habitats, denying Wildlife access to impacted habitats, pre-emptive capture to relocate unaffected individuals (e.g., Species at Risk), recovery of affected individuals, and assessing the effect of the incident on Wildlife (Table 2).

3.3.3 Terrestrial Habitats

Pollution discharged into a terrestrial landscape where a body of water is absent will be limited in spread and affect a small area in relation to the released volume. Pollution Incidents in a terrestrial landscape are usually limited to a point source (e.g., truck, rail, pipeline, oil storage facility), however, the species and types of incident interactions among terrestrial Wildlife may be diverse, as there is potential for impacts to birds,

mammals, reptiles, and amphibians. A Wildlife response strategy in a terrestrial landscape may focus on excluding Wildlife from the affected area, pre-emptive capture to relocate unaffected individuals (e.g., Species at Risk), recovering affected individuals, and assessing the impact of the incident on Wildlife.

Table 2. Key activities/strategies for Wildlife response based on major landscape types. This table is meant as a guide to highlight some potential key differences in approaches, but should not be considered as a checklist for all incidents. Refer to text for details.

Response Strategy/Activity	Landscape Categories		
	Marine/ Open fresh water	Aquatic	Terrestrial
Reconnaissance and surveillance surveys	X	X	X
Wildlife deterrence	X	X	X
Wildlife exclusion		X	X
Prioritize habitats for protection	X	X	X
Pre-emptive capture of Wildlife		X	X
Recovery of affected individuals	X	X	X
Assessing impacts to Wildlife	X	X	X

3.4 DETECTING SIGNS OF IMPACTED AVIAN SPECIES

In planning for Wildlife Emergency and preparation of a WRP, it can be important to consider target species and how detectable contaminated (or injured) Wildlife may be. The ability to detect contaminated Wildlife will help in planning several of the actions to be taken during a response, notably Initial Wildlife Impact Assessment (Section 4.5.2), reconnaissance and surveillance surveys (Sections 4.5.3 and 4.5.4), and Wildlife capture (Section 4.5.7). Detecting contaminated Wildlife is best done by experienced observers, such as WRO, but understanding of contaminated Wildlife detection can benefit all aspects of response planning and implementation. Here we provide guidance for detecting signs of oiling in avian species, though the principles outlined are generally applicable to birds affected by other contaminants.

Under normal conditions, typical bird behaviour will vary by the species, the habitats they occupy, as well as time of year and weather conditions. Generally, birds that spend a great deal of time on the surface of the water are typically seen resting on the water (e.g., loons, grebes, scoters, alcids, and cormorants). Piscivorous species (e.g., loons, grebes, alcids), will normally dive and surface repeatedly over time. Some species, like gulls, will move between resting on the water to being flight bound to using land to feed or rest. Species that are common in shore environments, like shorebirds, dabbling ducks, and cormorants are typically quite obvious on rocks or beaches, and would be expected to be quite mobile/active.

Birds that have come into contact with oil may have obvious oiling indications, including coating, discoloured feathers, or feathers having a wet or ragged appearance (i.e., disruption of feather structure). Heavily oiled birds or individuals oiled below the waterline may also appear as though they are sitting low on the water

(when compared with normal species posture), struggling to maintain buoyancy. Oiled birds have increased potential to lose buoyancy and thermoregulatory properties of their feathers. Accordingly, it is common to see oiled birds focused intently on preening themselves in order to maintain buoyancy and reduce heat loss; this may be most apparent while birds are on the water. Diving or dabbling species may appear to be foraging less than expected (although this should be assessed by experienced observers). Birds may also exhibit changes in flushing behaviour, being less inclined to fly when disturbed. Birds might also congregate near or on shore, or strand and rest on structures (e.g., vessels, buildings, platforms); this includes species that would not normally be expected to use these habitats or those that have contacted oil in the intertidal environment. In nearshore or shoreline environments, birds may also use shallow waters to reduce risk of drowning or take advantage of coastal vegetation to camouflage or reduce risk of predation while they try to preen or recover. Observations of behavioral changes in birds are sometimes the key indicators of oil impacts.

Detecting birds contaminated with oil is particularly difficult for aquatic birds with dark plumage that remain on the water and far from shore. Under these circumstances, it may be appropriate to determine a probable rate of contamination using appropriate indicator species. Ideally, indicator species are common throughout the incident area, share similar life history attributes, are sensitive to oiling, and signs of oiling are readily observable. The contamination percentage determined for indicator species only provides an estimation of the contamination percentage for the other species in the incident area. This type of assessment is likely to underestimate the actual contamination rate of the most vulnerable aquatic species, such as sea ducks and alcids, and overestimate the contamination of the more coastal species, such as geese and dabbling ducks (Lehoux and Bordage 1999). Additional details on how to assess rates of oiling for indicator species is provided in the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2021a).

4.0 COMPONENTS OF A WILDLIFE RESPONSE PLAN

A WRP is a plan that describes the objectives and methods for undertaking Wildlife Emergency response, specific to an area and Pollution or Non-Pollution Incident(s). The aim of a WRP is to avoid or minimize injury or harm to Wildlife during Pollution and Non-Pollution Incidents.

The following section outlines attributes that should be considered within a WRP (IPIECA 2014; Hebert and Schlieps 2018). An annotated WRP template is provided as an example in Appendix A, to be adapted and scaled based on the nature of individual Wildlife Emergencies. A checklist of activities that should be completed within the first 24, 48, and 72 hours of an incident involving Wildlife is provided in Appendix B.

4.1 INTRODUCTION

The Introduction section of the WRP provides the basis and rationale for how a Wildlife response will be handled. The Introduction will provide a general description of the types of issues that will be addressed by the

WRP. Where appropriate, the Introduction will describe how this WRP interfaces with various aspects of an ICP, including other response plans that WRP activities may interact with.

4.2 NOTIFICATION PROCEDURES

The Notification Procedures section outlines the agencies, organizations, and other technical specialists that will be notified during incidents involving Wildlife response. Where appropriate, this section will describe how notifications operate within the incident-specific ICS structure, as well as any intra- and interdepartmental communication requirements.

4.3 REGULATORY REQUIREMENTS

The Regulatory Requirements section provides a brief description of the applicable Wildlife legislation, where it applies, and whether supporting permits or authorizations are required to support a Wildlife response. In most cases, incidents involving Wildlife will need to consider the MBCA, the SARA, and possibly the CWA (see Section 2), as well as other provincial or territorial legislation. Additional permits and authorizations may also be required outside the regulatory authority of ECCC-CWS.

4.3.1 Permits and Authorizations

For any Wildlife Emergency involving the development of a WRP, the plan will identify any WROs or contracted subject-matter experts that will be engaged to support Wildlife response activities. Authorized organizations or individuals must have the training and resources necessary to meet Wildlife response requirements. Where permits or authorizations are identified, this section will highlight:

- a) what the authorization is for
- b) the issuing agency
- c) activities that are authorized
- d) who holds authorization to conduct those activities
- e) if a technical specialist or qualified professional is required to supervise or participate in the authorized activity (e.g., supervision or guidance of bird deterrence activities by ECCC-CWS or a WRO supervision of bird deterrence activities)
- f) reporting requirements, if any, for these authorizations

With respect to strategic WRPs prepared in advance for specific activities or areas, this section will also identify permits which are already in place and relevant information on renewal and reporting cycles.

4.4 RESOURCES-AT-RISK

The WRP will outline potential Wildlife and habitat resources-at-risk from the incident's current and reasonably foreseeable impacts. The resources-at-risk section of the WRP will describe:

- the geographic extent for which resources are being identified

- Migratory Bird sensitivities
- Species at Risk sensitivities
- important habitats for consideration and protection:
 - critical habitat
 - protected areas
 - colonial nesting areas
 - general nesting areas
 - seasonal stopover, molting, or staging areas
 - key areas (e.g., Important Bird Areas, Ecologically and Biologically Significant Areas)
 - other important habitat features such as estuaries

In addition to these general factors, the characterization of resources-at-risk should consider area- and species-specific factors such as seasonal presence, abundance, life stage, and habitat associations. Where available, incident-specific observations should be referenced in the description of resources-at-risk to characterize current conditions. Resources-at-risk should also consider details on mitigations related to habitats including priority sites, protection measures, clean-up restrictions, and information relevant to Net Environmental Benefits Assessment (NEBA) or Spill Impact Mitigation Assessment (SIMA) (e.g., IPIECA 2016, 2018).

4.5 WILDLIFE MANAGEMENT AND RESPONSE

This section will describe the nature of Wildlife management and response activities that are, or will be undertaken as part of the incident. The nature and scale of a WRP will depend on the incident, and the known or potential impacts to Wildlife.

For the early phases of an incident, the WRP should include, at minimum, a description of the initial approaches for Wildlife impact assessment (e.g., reconnaissance and monitoring activities). This section of the WRP will be revised as an incident evolves. Where appropriate, aspects of Wildlife management and response may warrant standalone plans that could be appended, and referenced in this section (e.g., detailed plans for Wildlife rehabilitation).

4.5.1 Operational Objectives

This section briefly describes the primary objectives for the activities that will be implemented during the operational period(s) this plan is expected to apply to until its next iteration. Objectives will consider the ethical considerations in context with situational, technical, and financial feasibility of implementation (IPIECA 2014). Objectives will change based on Wildlife concerns as well as personnel and equipment resource availability. These objectives form the basis for the nature and scope of activities described in this section of the WRP.

4.5.2 Initial Wildlife Impact Assessment (0 to 24 Hours)

In order to effectively plan for and direct Wildlife response efforts, an Initial Wildlife Impact Assessment needs to be conducted as early in the incident response as possible, to determine:

- existing information on Wildlife and habitats
- current/initial estimates of Wildlife impacts
- projection of potential impacts to Wildlife
- initial Wildlife response recommendations
- initial habitat protection recommendations
- initial resource, personnel, equipment, and facility requirements

As with all phases of a response, the Initial Wildlife Impact Assessment must be completed in consideration of the health and safety of response personnel and adhere to all incident-specific health and safety requirements (see Section 4.7).

4.5.3 Reconnaissance Surveys (24 to 48 Hours)

Reconnaissance surveys should be conducted in a timely manner on a large geographic scale to assess the outer limits of the incident. These surveys serve to obtain current information on impacted habitats, areas of special concern (e.g., colonial nesting areas) and the abundance and distribution of Wildlife within the general area of the incident, recognizing that Wildlife movements may extend beyond the geographic limits of the incident area. Initial reconnaissance surveys should take place as early in the response as possible to determine current conditions and inform potential response priorities and strategies. In all cases, reconnaissance should extend, at minimum, to the expected geographic limits of the incident area, recognizing those boundaries may change as the incident progresses. Reconnaissance surveys may be conducted on a recurring basis to inform response activities (e.g., deterrence and dispersal, Wildlife capture), or if the situation of the incident changes (e.g., following a storm). Reconnaissance surveys help identify the most suitable approaches for the surveillance or monitoring phase of the response. Reconnaissance may occur from land, boat, or air. Reconnaissance surveys are not systematic and the goal is not to precisely assess Wildlife densities but rather to conduct informal surveys to rapidly assess the distribution of impacted, or potentially impacted, Wildlife and habitats for a prompt response.

Primary objectives of reconnaissance surveys are to:

- determine the geographic scale of the incident
- identify Wildlife and habitats that have already been impacted
- estimate relative abundance and distribution of Wildlife with potential to be impacted
- evaluate key habitats of importance to Wildlife with potential to be impacted
- inform development of appropriate response strategies
- inform mitigation activities to minimize further damage to Wildlife
- inform suitability of various survey methods (e.g., shore, boat, or aerial surveys) for subsequent surveillance or monitoring for the duration of the incident
- inform Incident Command on the status of known or potential impact on Wildlife

If impacts to Wildlife or their habitats are known or anticipated, an approach for systematically surveying and monitoring Wildlife should be developed and articulated in the WRP (see Section 4.5.4). Standardized protocols

have been developed for conducting systematic Migratory Bird surveys during an emergency response in Canada and are summarized in the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2021a). The following stages of a Wildlife response (Sections 4.5.5 to 4.5.10) should be developed and implemented by trained and qualified personnel under the supervision of the Wildlife Branch Director in the Wildlife Branch and/or Wildlife Technical Specialist(s) in the Environmental Unit, depending on the structure of the response (see also Section 3.1).

4.5.4 Surveillance (Monitoring) Surveys (48 to 72 Hours and Onwards)

If impacts to Wildlife or their habitats are known or anticipated, Wildlife Branch will develop a systematic surveillance (monitoring) survey program with an appropriate temporal and geographic scope. If surveillance is required, the RP will secure qualified personnel to develop and execute the program and who will report to Wildlife Branch Director and/or Wildlife Technical Specialist(s). The methods and general approach(es) may be described in strategic WRPs and ECCC-CWS can advise on survey design and implementation for incident-specific WRPs, consistent with the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2021a).

Primary objectives of surveillance surveys are to:

- monitor and refine the identification of Wildlife and habitats in the impacted area
- monitor and identify areas where Wildlife would be potentially at risk from further impacts
- monitor and refine estimates of abundance and distribution of Wildlife in the impacted area
- monitor and estimate Wildlife densities for damage assessment
- monitor and estimate number of dead and moribund Wildlife affected by incident
- identify areas where affected Wildlife can be collected
- inform other response activities such as habitat protection and Wildlife deterrence and dispersal
- inform Incident Command

Implemented throughout the response in accordance with the plan, data collected during surveillance provides critical response information and can also be used to document damage assessment following the incident.

4.5.5 Deterrence and Dispersal

For some incidents, deterrence and dispersal can be an effective early means to deter Wildlife from moving into or near the incident area and coming into contact with contaminants. Use of these techniques can also be helpful in excluding Wildlife from impacted areas throughout the response phase. Deterrent devices used to disperse Wildlife include both visual and auditory techniques and range in their effectiveness depending on the species, number of individuals, time of year, and habitat where the incident occurs.

If deterrence or dispersal is required or recommended, the RP will retain a qualified and, if applicable, authorized WRO to develop and execute a Wildlife deterrence and dispersal program. In the absence of an RP, the Lead Agency may develop and execute a Wildlife deterrence and dispersal program. Guidance to

conduct activities related to deterrence and dispersal are outlined in Lehoux and Bordage (2000), with revisions and updates in development by ECCC-CWS. Other guidance to consider in the development of deterrence and dispersal tactics for WRP include Gorenzel and Salmon (2008) and IPIECA (2017). Deterrence will be conducted only by appropriately trained personnel, and under direct guidance and supervision (as required) from the Wildlife Branch Director and/or Wildlife Technical Specialist(s). A WRP may also outline protocols for Wildlife Technical Specialists in the field to monitor and document the use and effectiveness of deterrence and dispersal techniques so that updates may be made to subsequent WRPs. ECCC-CWS may provide guidance on deterrence and dispersal strategies and may also supervise deterrence and dispersal techniques for habitats or species that are particularly sensitive to these types of response measures (e.g., in proximity to breeding colonies). Strategic WRPs may outline a set of applicable techniques for a particular industry or facility, whereas an incident-specific WRP may then specify actions to be put in place given the species observed and environmental conditions at the time (e.g., weather).

Deterrence activities should be determined on a species-specific and location-specific basis that considers the following factors:

- What is the location and/or the extent of the spill
- Where are alternative species-appropriate habitats that birds can be dispersed to
- What species are present or likely to be at risk
- What is the life history status of the birds present (e.g., roosting, staging, breeding)
- What qualified personnel and equipment is available with experience and knowledge for deterrent use and Wildlife dispersal
- What are the environmental conditions
- Can the deterrence and dispersal plan be enacted in a safe manner for response personnel and Wildlife

4.5.6 Exclusion, Pre-emptive Capture, and Relocation

WRPs often implement measures designed to pre-emptively limit the potential for Wildlife to become impacted during Pollution Incidents. Often, marine, aquatic and terrestrial Wildlife can be excluded from areas that are known or have potential to become impacted through a combination of mechanical and physical techniques designed to dissuade habitat use (e.g., visual or acoustical deterrents, fence or net installation, physical habitat modification). Pre-emptive Wildlife capture and relocation similarly seeks to collect Wildlife before they are impacted during a Wildlife Emergency. Planning for Wildlife collection requires considerations for capture, transport, holding, and release strategies. If pre-emptively captured Wildlife need to be contained for a period of time, a WRO authorized to carry out these activities must be identified to provide appropriate species-specific housing, nutritional support, and medical care (if necessary) for a potentially extended period. Guidance and protocols on pre-emptive capture and care for Wildlife during a Pollution Incident are described in the *Guidelines for the Capture, Transport, Cleaning, and Rehabilitation of Oiled Wildlife* (ECCC-CWS 2021b). Where appropriate, the WRP should describe plans for Wildlife collection and relocation activities.

4.5.7 Wildlife Capture, Transport, Rehabilitation, Release, and/or Euthanasia

This section of the WRP will be broken down into detailed phases, each of which are described briefly in Table 3. Planning for these activities may evolve over the course of the incident to include details on the number of monitoring and field staging facilities, capture procedures, rehabilitation facilities, as well as coordination of rehabilitation personnel.

The RP should retain a qualified and authorized WRO to develop and implement these phases of Wildlife response. These programs will adhere to the *Guidelines for the Capture, Transport, Cleaning, and Rehabilitation of Oiled Wildlife* (ECCC-CWS 2021b), *Guidelines for Establishing and Operating Treatment Facilities for Oiled Wildlife* (ECCC-CWS 2021c), as well as an area-specific or incident-specific Health and Safety Plan. Not all phases will be applicable or readily implemented during a response, but all may be considered as options when developing a strategic WRP, and later refined in an incident-specific WRP.

Table 3. Phases of Wildlife Capture, Transport, Rehabilitation, Release, and/or Euthanasia

Phase	Objectives
Pre-emptive Capture	<ul style="list-style-type: none"> • The capture of Wildlife that is at risk of being impacted • Transport of Wildlife to a holding facility
Capture	<ul style="list-style-type: none"> • The capture of impacted Wildlife • Transport of Wildlife to Field Stabilization Site or Oiled Wildlife Rehabilitation Centre
Field Stabilization	<ul style="list-style-type: none"> • Physical evaluation • Removal of gross contaminants • Thermoregulatory support • Fluid therapy and nutritional support • Address life threatening conditions • Euthanasia evaluations based on established criteria and best practices
Transportation	<ul style="list-style-type: none"> • Transport of contaminated animals from field or Field Stabilization Site to an Oiled Wildlife Rehabilitation Centre
Processing	<ul style="list-style-type: none"> • Evidence collection • Birds given individual, temporary band • Feather/fur sample • Photograph • Individual medical record
Intake	<ul style="list-style-type: none"> • Medical examination, triage, and treatment plan development • Critical care concerns addressed • Euthanasia evaluations based on established criteria and best practices
Triage	<ul style="list-style-type: none"> • Ongoing euthanasia and treatment plan evaluation based on medical health status
Euthanasia	<ul style="list-style-type: none"> • Euthanize Wildlife that are assessed by the WRO as not being good candidates for rehabilitation or survival
Stabilization	<ul style="list-style-type: none"> • Fluid, nutritional and medical stabilization of impacted animals • 48–72 hours period • Prepare animals for cleaning process
Cleaning	<ul style="list-style-type: none"> • Removal of all contaminants from an impacted animal by washing • Removal of the cleaning agent by rinsing • Drying cleaned and rinsed animal
Conditioning	<ul style="list-style-type: none"> • Restoring waterproofing and physical condition
Release	<ul style="list-style-type: none"> • Federal banding of individual animals • Consider additional tracking devices on some birds to monitor post-release • Release of cleaned, waterproof animals into a clean environment
Post-release	<ul style="list-style-type: none"> • Determining the effectiveness of rehabilitation of Wildlife impacted during a

Phase	Objectives
Monitoring	Pollution Incident <ul style="list-style-type: none"> • Monitoring the clean Wildlife's condition and activities • Following short-term and long-term survival and breeding status following rehabilitation

4.5.8 Wildlife Carcass Collection Procedures

Dead Wildlife should be removed from the environment to avoid attracting scavengers to the site and secondary contamination of Wildlife. The responsibility for the collection and documentation of dead Wildlife is primarily the responsibility of the Wildlife Branch and is completed under the supervision of authorized organizations (e.g., Wildlife Enforcement Directorate) and personnel with appropriate permits. Protocols for Wildlife collection, storage and documentation will be developed. Wildlife recovery personnel will retrieve dead Wildlife as part of daily activities. Dead Wildlife observed by the public can be reported to a 24-hour hotline (see Section 4.6.1). Members of the public must not pick up dead Wildlife but rather report them to the hotline. The Wildlife Branch will work with the Information Officer to develop appropriate messaging.

Carcass collection information will be used to:

- refine the geographic scale of the incident
- determine the cause of death if the source is unknown
- minimize damage and exposure to unaffected Wildlife by removing affected Wildlife from the environment
- minimize potential for harm or exposure by the public who participate in hunting activities or are supporting aspects of the response
- support appropriate response strategies for the treatment of affected Wildlife
- obtain a minimum number of casualties for damage assessment purposes
- obtain specimens/samples for legal enforcement activities or reporting requirements
- inform Incident Command

These procedures will also outline requirements necessary for proper chain of custody and storage of specimens. Chain of custody, and other record-keeping forms, will be attached as appendices to the WRP.

For additional guidance on collecting dead Wildlife during incidents, see the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2021a).

4.5.9 Waste Management

Plans for decontamination and disposal of waste materials will be developed. Waste and secondary pollution should be minimized at each step of the Wildlife response. During the various phases of Wildlife cleaning (holding pen, carcass wrapping), waste will be created. Washing Wildlife will cause waste water (e.g., oil with detergent), which will need to be managed (through existing Waste Management Plans or by establishing additional plans as needed). Medical waste (e.g., syringes and gloves) should be considered. The response

plan will identify the legislation and the authorities responsible for waste management.

4.5.10 Demobilization

Regardless of the scale of a Wildlife Emergency, the WRP will describe any processes or considerations for demobilizing Wildlife response activities. As appropriate, demobilization will be scaled in accordance with the size of Wildlife response (e.g., decreased intake of contaminated Wildlife) and must be approved by the Incident Command.

This section of the plan will discuss, as applicable:

- processes for demobilizing equipment, facilities, and personnel
- processes for ongoing involvement in the ICP or post-response impact assessment and monitoring
- processes for chain of custody of data to support enforcement decisions
- processes by which the RP can continue to receive advice and support from ECCC-CWS

4.6 INFORMATION MANAGEMENT AND REPORTING

This section of a WRP should describe how information collected throughout the operational periods of the WRP would be managed, organized, vetted, and reported on. It should include:

- the type of data being collected (e.g., inventory, photos, videos, GIS)
- the personnel that will collect, organize, and vet the data
- the process for maintaining data records during and after the incident
- the process for integrating Wildlife data and activities into an incident information system (often referred to as the Common Operating Picture) within an ICP
- who data will be reported to, including the type and frequency of reports (e.g., daily email tabular summaries to the Environmental Unit Leader)
- how information is disseminated to agencies responsible for overseeing response

4.6.1 Wildlife Reporting From the Public (Wildlife Hotline)

Within the initial phases of an ICP being established where there are potential impacts to Wildlife, ECCC-CWS should ensure that reports of impacted Wildlife are directed to the Environmental Unit by way of a 24-hour hotline (or other reporting mechanism created for an incident). The contact information and instructions to the public for the 24-hour hotline should be outlined in the WRP. This may include the use of already existing environmental emergencies reporting systems, or the development of new hotlines as required for the scale of the incident. The Wildlife hotline may also serve as a platform to relay incident-specific safety information to the public (e.g., avoiding direct contact with contaminated Wildlife).

4.6.2 Media Relations

Media statements help to inform the public and raise awareness regarding Wildlife concerns and treatment, as well as public safety. The WRP should identify how Wildlife response activities will be reported to the public

through media statements, and who within the Environmental Unit or Wildlife Branch are responsible for informing them. Generally, Wildlife Branch Response Director and the incident's Information Officer will jointly develop these statements, with relevant input from Wildlife Technical Specialist(s) and/or Environmental Unit Lead. Where appropriate, public statements involving Wildlife will also be vetted and approved by the ECCC-CWS technical specialists, Media Relations, and the Regional Director.

4.6.3 Permits Reporting

Certain permits which may be issued prior to or during an incident may also have reporting requirements. Most ECCC-CWS issued permits require reporting of activities within 30 days of the permit expiry.

4.7 HEALTH AND SAFETY

Responder safety is of paramount importance when initiating Wildlife response activities. Activities recommended and implemented as part of a WRP will adhere to the incident-specific health and safety plan and be identified in consultation with the Incident Safety Officer. A brief overview of health and safety considerations and requirements will be described in the WRP, with specific mention of Wildlife responder personal protective equipment, zoonoses, and site safety and security (including areas off limits to Wildlife responders). This section will evolve over the course of the incident.

4.7.1 Personal Protective Equipment

For Wildlife management and response activities proposed in a WRP, responders will have appropriate training and equipment for safely operating in shoreline, marine, or aerial environments (depending on incident location and response activities) and for contaminated Wildlife handling within a rehabilitation setting. Responders will have appropriate equipment and clothing to operate for extended periods and that protect against environmental exposure or incident-specific conditions. Basic personal protective equipment recommended for Wildlife management and monitoring activities includes:

- eye protection (e.g., sunglasses, goggles, safety glasses, or face shield)
- oil-resistant rain gear or oil protective clothing (e.g., coated Tyvek, Saranex, etc.)
- water and oil resistant hand protection (e.g., neoprene or nitrile rubber)
- waterproof and oil resistant non-skid boots; steel-toes may be required under the incident-specific health and safety plan
- hearing protection (muff or ear plug type)
- personal flotation device when working on, near, or over water
- air monitoring device when appropriate
- specific gear appropriate for work where personnel are or may be submersed in water (wet suits, dry suits, survival gear)
- species-specific capture and protective gear (welding gloves, steel toed boots etc.)

The above list should not be considered comprehensive or applicable to all incidents. Additional incident-

specific and specialized equipment may be required for other aspects of Wildlife response and will be developed in consultation with WROs and the Safety Officer.

4.7.2 Zoonoses

Zoonoses are infectious diseases that may be transmitted between animals and humans under natural conditions. Personnel handling or coming into contact with Wildlife are at risk of zoonotic disease exposure. Veterinarians, technicians, response personnel, Wildlife handlers, and other animal care personnel who come into direct or indirect contact with Wildlife or any body fluids are at risk of contact with disease agents that may have zoonotic potential. Organisms that may cause or transmit zoonotic diseases include many classifications from viruses, fungi, and bacteria to internal and external parasites. The WRP will describe biosecurity practices that will be employed in all aspects of Wildlife response to reduce risk of disease transmission.

4.7.3 Biosecurity

Biosecurity is a set of preventative measures that reduce the risk of transmission of infectious diseases, pests, and invasive species. Where there is potential for response measures (both overall incident response and Wildlife-specific response) to contribute to issues involving biosecurity, the WRP will outline a suite of measures to control for these risks.

4.8 PERSONNEL REQUIREMENTS

There are many personnel that could be involved in various aspects of WRP implementation. Certain roles, responsibilities, or authorized activities require various types of training or technical expertise.

Where applicable, the WRP will specify which activities individuals with specific training or expertise can complete. This may include outlining training standards and/or experience that may be required for specific industries, areas, or facilities. Industries and Response Organizations should consult with regional ECCC-CWS staff for guidance on relevant standards.

4.9 FACILITY AND EQUIPMENT REQUIREMENTS

As part of planning and implementing Wildlife response measures outlined in a WRP, specific equipment and facility requirements may need to be developed. The level of detail of these requirements will vary by the scale of the incident and may be more appropriately described in documents appended to the WRP. Components of equipment and facility considerations may include:

- the type and amount of equipment required
- means of transportation to support Wildlife response elements
- requirements for utilities, waste management, and security
- the nature of equipment or facility requirements (e.g., temporary, mobile, permanent)
- sources of supplies if known

Additional information to support equipment and facility planning is outlined in the *Guidelines for Establishing*

5 EVALUATING WILDLIFE RESPONSE

5.1 EVALUATION AND REVIEW

WRPs should be implemented and evaluated for their effectiveness within a context of adaptive management, where the results are used to refine future iterations (IPIECA 2014, Hebert and Schlieps 2018). Following a Wildlife Emergency, WRP developers and implementers should debrief on strengths and weaknesses of the plan, lessons learned, and gaps or areas for improvement (particularly for strategically developed activity- or area-based WRPs). Evaluation of the WRP should consider a) ease of implementation, b) efficiency of implementation, c) areas of practice that were or were not included, and d) whether the WRP supported the desired response outcome(s), business and legal requirements. ECCC-CWS may be consulted in this review and assist with recommendations for refinement.

5.2 EMERGENCY EXERCISES

Emergency exercises are important for testing the effectiveness of WRPs, identifying potential gaps, and ensuring activity-, area- or incident-specific considerations are planned for in advance of an actual incident occurring (IPIECA 2014). Exercises also allow for government and industry partners to work together and familiarize themselves with the personnel and resources available to support Wildlife response activities. Exercises can also be an excellent means to provide training, or to test certain response strategies in a controlled setting.

Emergency exercises can take place in several formats: notifications, tabletop, field drills, and participation in the Environmental Unit or Wildlife Branch of an ICP. Each exercise will be planned with specific Wildlife response focused objectives in mind, and may center on testing particular aspects of the WRP. WRPs should be updated and revised to incorporate identified gaps and lessons learned into the plans.

6 CUSTODIAN

The custodian for the *Guidelines for Wildlife Response Plans* and any amendments thereto is the:

Director General, Regional Operations Directorate

ECCC-CWS

ECCC

The approval of future updates is vested to the Director General, Regional Operations Directorate, ECCC-CWS.

7 ACKNOWLEDGEMENTS

This publication represents the collective efforts of many members of the ECCC-CWS National Wildlife Emergency Response Working Group (François Bolduc, Daniel Bordage, Andrew Boyne, Brigitte Collins, Jean-François Dufour, Kevin Fort, Carina Gjerdrum, Jeanette Goulet, Jack Hughes, Nancy Hughes, Lesley Howes, Vicky Johnston, Raphael Lavoie, Jim Leafloor, Erika Lok, Craig Machtans, Kim Mawhinney, Ruth Milkereit, Dave Moore, Patrick O'Hara, Mia Pelletier, Lisa Pirie, Jennifer Provencher, Greg Robertson, Myra Robertson, Rob Ronconi, Pierre Ryan, Saul Schneider, Chris Sharp, Eric Shear, Graham Thomas, Mike Watmough, Becky Whittam, Sabina Wilhelm, Megan Willie, and Sydney Worthman) and the ECCC-CWS Permits Working Group. Additional review and comments were provided by Tri-State Bird Rescue and Research (Ryan Wheeler), and Focus Wildlife (Jenny Schlieps, Charlie Hebert). This document is a product of ECCC.

8 LITERATURE CITED

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APPENDIX A: EXAMPLE TEMPLATE OF A WILDLIFE RESPONSE PLAN

APPENDIX B: EXAMPLE CHECKLIST OF WILDLIFE EMERGENCY ACTIVITIES

Table B.1. Example Checklist of Activities to Undertake within the initial 24, 48, and 72 hours of a Wildlife Emergency (adapted from Hebert and Schlieps 2018)

Timeline	Responsibility	Action
0-24 Hours	Incident Command/ Unified Command	<ul style="list-style-type: none"> • Ensure appropriate notifications to relevant government departments and branches • Activate an authorized WRO
	Environmental Unit	<ul style="list-style-type: none"> • Compile existing information on Wildlife • Complete a Resources-at-risk form (i.e., ICS 232) • Initiate Initial Wildlife Impact Assessment • Initiate deterrence and dispersal strategy
24-48 Hours	Incident Command/ Unified Command	<ul style="list-style-type: none"> • Establish a Wildlife Branch under the Operations Section of the ICP • Designate a Wildlife Branch Director
	Environmental Unit and/or Wildlife Branch	<ul style="list-style-type: none"> • Mobilize the WRO • Continue Initial Wildlife Impact Assessment • Conduct Reconnaissance Survey • Refine deterrence and dispersal strategy • Develop Wildlife Branch organization chart • Establish a Wildlife hotline • Initiate incident-specific WRP • Initiate requests for resources (personnel, supplies, facilities, equipment) • Identify Wildlife response health and safety requirements • Ensure ongoing notifications and updates to relevant government department contacts • Identify subject matter experts that might support the ICP
48-72 Hours	Wildlife Branch and/or WRO	<ul style="list-style-type: none"> • Coordinate with the WRO to develop or modify an existing WRP, and a process for WRP implementation • Develop plan for ongoing monitoring • Conduct surveillance and monitoring surveys • Determine locations for field stabilization • Establish field staging areas • Refine incident-specific WRP • Develop internal and external communications with the Information Officer and departmental communications personnel • Ensure ongoing notifications and updates to departmental contacts



Department of Municipal Affairs and Housing

Maritime Centre, Floor 8 North
1505 Barrington Street
PO Box 216
Halifax, NS B3J 2M4

Date: March 24, 2022
To: NS Department of Environment and Climate Change
From: Department of Municipal Affairs and Housing
Subject: **NATURAL FORCES WESTCHESTER WIND PROJECT**

As requested, the Department of Municipal Affairs and Housing has reviewed the Environmental Assessment Registration Documents for the proposed Westchester Wind Project. From the perspective of our Departmental mandates, we have no comments to submit relative to this EA review.

Thank you for the opportunity to review the Registration Documents for the above-noted project.

Date: March 23rd, 2022

To: Janice Ray, Environmental Assessment Officer

From: Wetland & Water Resources Specialist, Water Resources Management Unit

Subject: Westchester Wind Project EA

Scope of Review:

The following review of the Westchester Wind Project (Westchester Mountain in Cumberland County, NS) Environmental Assessment Registration Document (EARD) (Natural Forces Developments Limited Partnership, February 2022) is specific to the mandate of the ECC Wetlands Program within the Sustainability and Applied Sciences (SAS) Division. The review considers whether the environmental concerns associated with wetlands and the proposed mitigation measures to be applied have been adequately addressed within the Environmental Assessment. The recommendations provided below are meant to supplement the actions outlined in the EA submission documents.

Reviewed Documents:

Westchester Wind Project Environmental Assessment Registration, Natural Forces Developments LP., February 16th, 2022.

General Comments:

A preliminary assessment of wetlands for this project was provided with few details on the wetlands. There is not enough information provided in the EARD to predict whether adverse environmental effects on wetlands will occur. The Guide to Preparing an EA Registration Document for Wind Power Projects in Nova Scotia has a list of information that should be provided within the EA Registration Document. The following information was not provided:

- *Identify the location, size, boundary and class of any wetland*
 - It is unclear how many wetlands are in the LAA and how many will be directly impacted by the project. The EARD states, *“Additional field assessments are planned for 2022 for wetlands that have not been field-truthed as part of the 2021 preliminary wetland assessment.”* Clarify the exact number of wetlands within the LAA and which ones will be impacted by the Project. This should be presented in a table. A pre-liminary assessment is not sufficient. All wetlands that have the potential to be impacted (direct or indirect) should be included in the EARD.

- *Functional Assessment information*
 - To predict whether adverse environmental effects on wetland function will occur, wetland functional assessments should be completed for all wetlands that

could be impacted by the project. Furthermore, functional assessments (WESP-AC) can determine whether wetlands are Wetlands of Special Significance (WSS) based on the wetland function using the WESP-AC interpretation tool. There was no mention of WSS based on function in the EARD.

- *Maps and photos clearly indicating the locations of the project in relation to the wetland and other natural features*
 - The wetland shape files do not have all the wetland ID's matching the figures that were provided in the report and wetland class in the attribute table.
 - Other natural features (i.e., watercourses, fish habitat, SAR/SOCC) were not included in the wetland figures.
 - Figures should include potential wetland alterations; it was unclear if the project development area intersections are the proposed wetland alteration areas.

- *Nature of the proposed alteration*
 - It is unclear which wetlands will be altered by new roads, road upgrades and transmission line installation. Proposed wetland alterations should be provided including direct and indirect alteration areas (in a table and shown on figures). In the EARD, impacts to wetland 1, 3, 14 and two unassessed wetlands (unclear on their location, size, boundary, and class) are only mentioned, however in the figure it appears that more will be impacted.
 - What wetland avoidance measures will be taken along the access roads?

- *All identifiable impacts to the wetland (e.g., percent of wetland to be altered, species at risk present and/or species of conservation concern, terrestrial & aquatic flora, and fauna species to be affected)*
 - The percent of each wetland proposed to be altered (relative to the wetlands total area, including estimated areas outside of LAA) should be provided in a table.
 - Not all the SAR/SOCC species identified in the EARD in or near wetlands were mentioned in the wetland section of the report. It is important to include any wetlands that are known to support at-risk species. It is unclear if Common Nighthawk, Evening Grosbeak and Canada Warbler were identified in any of the wetlands since it was not shown on the figures or mentioned in the report. The EARD only mentions that Point Count 1, 2, 12 and 16 were located within wetland habitat (Table 14) but does not specify which wetlands. Clarify the presence of SAR/ SOCC within or near wetlands and include detailed information on the habitat and habitat usage.

- The NS *Wetland Conservation Policy* identifies WSS as wetlands known to support at-risk species as designated under the federal *Species At Risk Act* or the *Nova Scotia Endangered Species Act (2011)*, among others (see policy). Government will not support or approve alterations proposed for a WSS or any alterations that pose a substantial risk to a WSS except alterations that are required to maintain, restore, or enhance a WSS. Or

alterations deemed to provide necessary public function, based on an Environmental Assessment (if required) with public review or other approvals (e.g., Wetland Alteration Approval) as appropriate.

- Wetland 17 would be considered a Wetland of Special Significance due to the presence of Eastern Waterfowl.
- Identify which other wetlands would be considered WSS. (See note above on SAR/SOCC birds).
- *Opportunities for mitigation of impacts and/or compensation.*
 - The EARD states: “Due to locations of wetlands in proximity to site infrastructure, as well as avoidance of impact to wetlands with infrastructure no further monitoring will be recommended during operations”. The duration of monitoring is dependant on the Wetland Alteration Approval Terms and Conditions. Monitoring may be required during operations.
- No mitigation or monitoring was mentioned for wetlands that will be altered by the project. This should be included.
- Wetland Compensation was not mentioned in the EARD. If a wetland is altered compensation would be a requirement of the Wetland Alteration Approval Application.

Additional Comments:

In Appendix G, Section 2.2, it states that “a two parameter system was established at representative locations within the field identified wetlands based on the presence of hydrophytic vegetation and wetland hydrology”. For wetland alteration permit applications hydric soils should be assessed in the field.

Conclusion:

The information provided in the EARD is insufficient in identifying the potential environmental impacts on wetlands. A pre-liminary wetland assessment is not sufficient in identifying the impacts on wetlands. All wetlands that could be impacted need to be identified. Functional Assessments should be completed for all wetlands that could be altered directly or indirectly. Information is lacking detail and does not correlate with other important features (i.e., project infrastructure, SAR/SOCC, watercourses, fish habitat). It is unclear if the project construction will be altering wetland. Additional information is required to understand the environmental effects of the project relative to wetlands within the LAA. Please provide the additional information requested in the sections above.

Date: March 2, 2022

To: Candace Quinn, Environmental Assessment Officer

From: , Consultation Advisor, Mi'kmaq Relations Unit

Subject: Westchester Wind Farm

The Nova Scotia Department of Natural Resources and Renewables has reviewed the Environmental Assessment Registration Document for the proposed Westchester Wind Farm project, submitted by Natural Resources, dated February 23, 2022. The following review considers whether the information provided will assist the Province in assessing the potential of the proposed Project to adversely impact established and/or asserted Mi'kmaw Aboriginal and Treaty rights during the Crown-led Aboriginal Consultation process.

3: Mi'kmaq of Nova Scotia

Section 3 indicates ongoing engagement efforts by Natural Forces with the Mi'kmaq of Nova Scotia. Activities included engagement efforts with all 13 Bands and with the KMKNO. Engagement with the KMKNO has been ongoing since March 2021. Natural Forces has initiated an MEKS by Membertou Geomatics, which the Proponent indicated has been delayed due to COVID restrictions. Natural Forces has been working with KMKNO and the Confederacy of Mainland Mi'kmaq to hire a Mi'kmaq technician to assist with identifying vegetation and species of significance to the Mi'kmaq that could be impacted by the project. The proponent has indicated this technical position has not been filled due to a lack of interest and the proponent hired Maqamigew Anqotumeg to do this work. It is recommended that the proponent continue these discussions and engagement with the Mi'kmaq to pursue both the MEKS and the Mi'kmaq technician position.

6.1.2: Physical Environment

6.2.1: Terrestrial Habitat and Vegetation

Several plant species that are known to be of cultural significance to the Mi'kmaq were identified within the mixed-wood and sugar bush forest habitat and the hardwood forest habitat within the assessed area. Some of the listed plants are recognized to be traditional Mi'kmaw medicinal plants or culturally significant plants.

Potential impacts to plant species may potentially have an adverse impact to Aboriginal and Treaty rights. Additional information should be provided on the potential impacts to plant species in the area.

6.2.2: Wildlife

The project development area (PDA) is located within a Mainland Moose Concentration Area. Eastern mainland moose have been reported historically in the vicinity of the proposed Project (145 sightings within 7.3km of the project location). The Proponent has contacted the Confederacy of Mainland Mi'kmaq to understand current and proposed Mainland Moose recovery programs. Further discussions are required to understand the scope of work and funding required for such programs, however the Proponent commits to contributing to these programs in order to help the recovery of the Mainland Moose population.

Although moose hunting is not permitted on the mainland, Moose are a culturally important species to the Mi'kmaq of Nova Scotia. As such, additional information should be provided to determine the potential of Moose presence in the project area and the potential for the project to impact Moose and Moose habitat. The proponent should rely on the *Mainland Moose Recover Plan* to determine potential impacts of activities and to recover the species.

6.2.3: Wetlands

Proposed new access roads are anticipated to directly impact one wet area and come within 30 m of a second wet area. It is estimated that an additional 3 wetlands (approximately 1.72 ha) are potentially within the local assessment area (LAA). 17 wetlands were identified within the LAA (approximately 7.42 ha of wetlands in the LAA; however, only 2.51 ha of were delineated within the PDA). Wetlands are located with the PDA for access road development if the current road layout is selected.

Potential impacts to wetlands could have an adverse affect on Aboriginal and Treaty rights. Additional information should be provided and water quality monitoring programs should be considered for any terms and conditions of the EA Approval, or subsequent Part V Approvals, if issued.

6.2.6: Aquatic Environment

This section indicates that the proposed project is situation in the Cobequid ecodistrict, which includes multiple large river systems. The PDA is located within the Economy and Phillip/Wallace primary watersheds and some areas of the PDA are located within the River Philip and Wallace River secondary watersheds, which both flow north to the Northumberland Strait. The new proposed roads in the PDA are anticipated to cross existing watercourses at seven locations.

American eel and Atlantic salmon from the Inner Bay of Fundy and the Gaspé-Southern Gulf of St. Lawrence populations were observed within 13-16km from the PDA. Atlantic Salmon have been identified throughout the Portapique River watershed which has been identified as a critical habitat for this species.

Potential habitat for American eel (Portapique Seondary Watershed) is present within the PDA. Eel is a significant species to the Mi'kmaq.

Brook Trout is considered S3 for Vulnerable according to the Atlantic Canada Conservation Data Centre (ACCDC) designation. During the 2021 field surveys, suitable habitat was observed on the Project site as well as direct observations. The ACCDC report additionally indicates that the species can be found within 16 km of the project footprint.

Potential impacts to fish and fish habitat may potentially have an adverse impact to Aboriginal and Treaty rights. Additional information should be provided on the potential impact on fish and fish habitat in the project area. Additionally, water quality monitoring programs should be considered for any terms and conditions of the EA Approval, or subsequent Part V Approvals, if issued.

6.4.2: Existing and Historic Land Uses

There is evidence of Mi'kmaq land use near the PDA and there are historical accounts of Mi'kmaq campsites in the Cobequid Hills in the mid-19th century. This information should be further investigated through a completion of an MEKS.

7.0: Effects of an Undertaking on the Environment

The proponent indicates that all construction noise and disturbance will fall within acceptable thresholds for noise and air quality as it relates to the disturbance for nearby residences and human activity. The proponent should also indicate how this could potentially affect wildlife and wildlife migration patterns, especial Moose and other SAR. Any construction activities occurring near/on watercourses will require the appropriate permits for any potential alterations.

7.3.5: Archaeological and Cultural Resources

The Proponent has identified that the project has the potential to interact with heritage resources via accidental discovery during excavation activities. The proponent will be required to adhere to provincial legislation (*Special Places Protection Act*) that protects the preservation of archaeological and cultural resources. The proponent should continue to engage with the Mi'kmaq as it relates to archaeological investigation in the area. An ARIA was indicated in Appendix N, however this was not submitted as it is our understanding it is not yet complete.

7.5: Cumulative Effects

This area of the province has a number of existing wind energy developments and a quarry development. This has the potential to have cumulative impacts for land use and species that are critical to the Mi'kmaq, such as Moose.

Appendix O: Environmental Management and Protection Plan

The scope of the draft EMPP includes the construction, operation, maintenance and decommissioning of the Project. The activities proposed for these four phases should include a communication plan to the Mi'kmaq as well as other efforts to include relevant concerns, issues, or interests they may have.

Date: March 25, 2022

To: Janice Ray, Environmental Assessment Officer

From: Surface Water Staff, Water Resources Management Unit

Subject: **Westchester Wind Project**

Scope of Review

The scope of this Environmental Assessment Registration review from the NSE Water Resource Management Engineer is to assess the potential environmental impacts and proposed mitigations of the proposed undertaking on surface water quantity, quality and management.

The following Westchester Wind Project Environmental Assessment (EA) Review focuses on the following topics:

- Surface water quality & its management
- Hydrology and surface water quantity & its management

While comments may also include considerations for impacts on groundwater, freshwater fish habitat, and wetlands, appropriate technical specialists for these areas should be consulted for specific review and comment.

Reviewed Documents

The documents outlined below formed the basis for this EA Registration review:

- The Westchester Wind Project EA Registration document for a Class I undertaking under Nova Scotia Environmental Assessment Regulations by Natural Forces
- Appendices A-P

Comments

General

- The Westchester EA Registration notes that it is based on 16 proposed turbine locations. However, the proponent only plans to construct the optimal 12 of the 16 proposed turbines. This EA Registration Review has been prepared with the

assumption: that no alteration will occur outside of the project areas and project assessment areas shown in the EARD, and that all interactions with surface water will remain principally consistent with these proposed plans.

- Named watercourses were identified within the area of the proposed Project include the River Phillip, Wallace River and the Portapique River Secondary watershed. There are numerous named and unnamed tributaries that flow to each of these. The majority of the project area falls within the Portapique River secondary watershed, including watercourses Duck Pond, Little Duck Pond, Fountain Lake and Gleason Brook, which flow south towards Minas Basin.
- The Project includes construction of new access roads, as well as upgrades to existing access roads to the proposed wind turbine locations.
- There are many surface water features (watercourses and wetlands) in the project area and intersecting with the Project access roads.
- Details of the final road footprints (new and upgraded) are necessary to confirm the conclusions the applicant has provided and/or further analyze project impact to the surface water resources of site.
- Details of the construction methods and mitigations of the Project's electrical infrastructure is necessary to confirm the conclusions the applicant has provided and/or further analyze project impact on surface water resources of the site.
- The construction activities specifically of grubbing and clearing have the potential to alter the existing hydrology and introduce sediment to the nearby surface waters. Mitigation measures have been proposed to minimize effects of this undertaking.
- The risk of residual effects to the general surface water quality and drainage should be minimal and focused mainly during times of construction, and minimally in decommissioning, based on the mitigations identified by the EA Registration Report, and summarized in Section 7.1.2.2.

Surface Water Quality

- Standard best management practices have been identified as risk mitigation.
- No site surface water quality monitoring plans were identified by the EA Report.
- Section 7.1.2.2 of the EA Registration Document states that: Fill and excavated materials will only be stockpiled for limited periods of time to reduce the likelihood of sedimentation. No specific periods of time identified as to what has potential to reduce the likelihood of sedimentation.
- In Appendix K, the proponent states that of 31 crossings with the PDA, 22 watercourses were identified in the 2021 field studies conducted. No information is provided on reasoning for a water quality study completed by the proponent for 15 of these watercourses and watercourse characteristics provided for 19 of these watercourses.
- Table 36 in the EA Registration Report states that “weather will be monitored and

additional erosion control measures such as the instalment of hay bales and check dams/silt fences will be employed, as appropriate, should stockpiled fill be present in unexpected heavy rain events,” S.7.2.1.1. It is noted that Erosion and Sediment control measures should be always in place and ready during the construction phase of the project.

Hydrology

- Interactions with surface water patterns are anticipated to occur mainly in the construction phase of the project, resulting from physical permanent footprints (grading, road construction, clearing and grubbing of electrical corridors). However, these have potential to reoccur in reclamation and decommissioning activities.
- S. 7.1.2.2 states that construction activities have the potential to result in changes in surface hydrology. A surface water management plan developed by a qualified professional engineer should be submitted to NSECC for review and approval prior to construction. This plan should include the final road alignment electrical corridors, and turbine pad footprints, demonstrate maintenance of existing drainage patterns, and confirm watercourse crossing locations.

Watercourse Alterations

- In Appendix K, it is stated that due to a plan update in 2021, one watercourse crossing, WC15, was not included in the 2021 field surveys. The proponent has committed to habitat assessment prior to construction and interaction with this watercourse, and if fish habitat is identified, will follow measures outlined in Section 7.1.2 and 7.2.6.
- Upon completion of a finalized project layout, the proponent has committed to detailed aquatic assessments to be submitted with a NSE Watercourse Alteration Permit and DFO Request for Review.
- Proposed upgrades, including widening, to previously constructed access roads and watercourse crossings on project site potentially require Approval or Notification under the Activities Designation Regulations.
- Regardless if they are temporary in nature, the potential watercourse crossings associated with the construction of electrical infrastructure potentially requires Approval or Notification, and the Activities Designation Regulations should be reviewed.

Conclusions and Recommendations

The following are recommended to be included as conditions in support of the potential approvals for the Project:

Planning/ Design Issues:

- A surface water management plan developed by a qualified professional engineer should be submitted to NSECC for review and approval prior to construction. This plan should include the final road alignment and turbine pad footprints, the power pole locations and power line alignment, demonstrate maintenance of existing drainage patterns, and confirm watercourse crossing locations.
- The criteria for establishing the 'optimal' design and selection of the final 12 turbine locations should be outlined and submitted. Surface water interaction and watercourse alterations should be kept minimal where possible.

Operational Issues/ Other Permitting Processes:

- An erosion and sediment control plan developed by a qualified professional should be submitted for NSECC review and approval prior to the start of construction and operation activities, including clearing, grading and excavating.
- Prior to undertaking any construction activity, regardless if it is temporary in nature, in the bed or banks of a watercourse, obtain any watercourse alteration construction Approvals or Notification receipts which may be required pursuant to Part V of the Environment Act.

Fisheries and Aquaculture

Date: March 23rd, 2022

To: Janice Ray, Nova Scotia Environment and Climate Change

From: Executive Director, Policy and Corporate Services
Nova Scotia Department of Fisheries and Aquaculture

Subject: Westchester Wind Project - Environmental Assessment

Thank you for the opportunity to review the Westchester Wind Project documents.

The Department of Fisheries and Aquaculture has the following comments:

- This project is not likely to have major impacts on any commercial fisheries in the area and there are no active seafood processing operations within the immediate vicinity.
- The larger permanent streams in the construction area are potentially important areas for spawning and rearing of brook trout and no direct assessments of fish populations have been completed.
- There are two land-based aquaculture facilities located within a 25km radius of the proposed project.

Date: March 25, 2022
To: Janice Ray, Environmental Assessment Officer
From: Climate Change Unit
Subject: **Westchester Wind Project**

Greenhouse Gas Mitigation

The proponent has not supplied any estimate of GHG emissions expected during the construction phase of the project. It is expected that these quantities may be negligible but some mitigative measures should be proposed.

Climate Change Adaptation

In accordance with the guidelines, the proponents of the Westchester Wind Project used up-to-date Climate Change projections throughout the report, including Section 8.0 Effects of the Environment on the Undertaking. They also provided a set of precautionary measures to mitigate the adverse effects of extreme weather events. Therefore, there are no further recommendations in this area.

Environmental Health Program (EHP)
Regulatory Operations and Enforcement Branch (ROEB)
1505 Barrington Street, Suite 1625
Halifax, NS B3J 3Y6

March 24, 2022

Policy, Planning and Environmental Assessment
Nova Scotia Environment
1903 Barrington St. Suite 2085
Halifax, NS, B3J 2P8

Sent by e-mail to: Lynn.Bowen@novascotia.ca

Subject: Health Canada's Comments of the Westchester Wind Project Environmental Assessment Registration Document¹

Dear Lynn Bowen,

Thank you for your e-mail on February 23, 2022 requesting Health Canada's review of the above-mentioned Environmental Assessment (EA) Registration document¹ with respect to issues of relevance to human health. Health Canada only reviewed **Appendix C: Sound Level Impact Assessment Study²** and is providing the following comments with respect to noise for your consideration. As Health Canada only reviewed Appendix C some of these comments may have been addressed in other sections of the EA.

Health Canada's role in Impact/Environmental Assessment is founded in statutory obligations under the *Impact Assessment Act*, and Health Canada's knowledge and expertise can be provided upon request to Federal Departments, Agencies and other federal stakeholders (e.g., Impact Assessment Agency of Canada, review panels, and/or Indigenous groups that are under federal jurisdiction). Upon request, Health Canada can also support provincial authorities on EA. How the expertise provided by Health Canada will be used in the EA process will ultimately be determined by the reviewing body(ies). Please note that Health Canada does not approve or issue licenses, permits, or authorizations in relation to the EA.

Health Canada's comments are included in the attached table for your consideration. For more information on Health Canada's guidance relating to the assessment of health risks associated with noise in EAs please see:

¹ Natural Forces Development LP, Natural Forces Development LP, Environmental Assessment Registration for the Westchester Wind Project. 2022. February

² Natural Forces Development LP, Appendix C: Sound Level Impact Assessment Study for the Westchester Wind Project. 2022. February. Environmental Assessment Registration for the Westchester Wind Project. 2022. February.

Health Canada. 2017. Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. <http://publications.gc.ca/pub?id=9.832514&sl=0>

Should you have any comments or questions regarding Health Canada's comments, please contact the undersigned.

Sincerely,

Acting Impact Assessment Specialist
Health Canada, Atlantic Region
email: [@hc-sc.gc.ca](mailto: @hc-sc.gc.ca)

cc:

, A/Manager, EHP, ROEB, Health Canada, Atlantic Region
, A/Manager, Environmental Assessment and Contaminated Sites (EACS)
Division, Healthy Environments and Consumer Safety Branch (HECSB), Health Canada
, Environmental Officer, EHP, ROEB, Health Canada
, Senior Environmental Health Specialist, EACS, HECSB, Health Canada

Attached: Table 1: Health Canada's Comments on Appendix C of the **Westchester Wind Project EA**

Table 1: Benjamins Wind Project – Health Canada’s Comments on Appendix C of the Environmental Assessment (EA)

Comment number	Section	Reference from the Sound Level Assessment Study (Appendix C)	Health Canada Comments
HC-01	Section 1.0 – Introduction (p. 2)	<p>The document states that <i>“While several turbine models are being considered, this assessment has been completed using the Enercon E-160 EP5 E2 turbine. This model has a nameplate capacity of 5.5 MW and a hub height of 120 m.”</i></p> <p>and</p> <p><i>“The operational sound assessment was conducted using the ISO 9613-2: Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation model within the Decibel module of the software package, windPRO version 3.5. The Guide to Preparing an EA Registration Document for Wind Power Projects was consulted during this assessment.”</i></p>	<p>Health Canada recommends that the proponent address the following comment in a revised project document:</p> <p>The 28 proposed turbines are each intended to be 5.5 megawatt (MW). It is unclear if the existing modelling software (e.g. windPRO 3.5.552) is appropriate for wind turbines of this capacity. Previous projects reviewed by Health Canada that have used this software have been based on wind turbines with a maximum power output up to approximately 3.5 MW.</p> <p>Rationale be included to support whether this software is appropriate to adequately model wind turbines of this size.</p>



HC-02	Section 2.0 – Construction sound assessment Table 3 (p. 4)	<i>TABLE 3: worst-case sound levels in the surrounding environment calculated using WSDoT (Washington state department of transportation, 2017) guidelines and assuming sound levels in soft environment attenuates at - 7.5 dB[A] per doubling of distance.</i>	Health Canada recommends that the proponent address the following comment in a revised project document: The document indicates that the proponent has assumed that sound levels in soft environments attenuate at a rate of 7.5 A-weighted decibels (dBA) per doubling of distance. In general and under ideal conditions, for point sources, sound levels drop approximately 6 decibels (dB) for every doubling of distance from the source. For line sources, sound levels drop by approximately 3 dB per doubling of distance (because sound will create a cylindrical spreading). It is unclear why 7.5 dBA was selected to represent sound reduction from operational turbines, particularly given that they are in close proximity and may act more as a line source than a point source. Rationale be provided to support the attenuation rates used in Table 3 (7.5 dBA per doubling of distance). In addition, with respect to low frequency noise (LFN), sound level reduction is even lower over distance (see comment HC-06 for additional information on sound propagation with respect to LFN).
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<p>HC-03</p>	<p>Section 2.0 – Construction sound assessment (p. 5)</p> <p>Section 5.0 – Conclusion and Mitigation (p. 7)</p>	<p>The document states that “<i>Many sound level scales refer to 70 dB[A] as an arbitrary base of comparison where levels above 70 dB[A] can be considered annoying to some people (Purdue University). As indicated in Table 3, at 61 m from the construction site, noise levels are approximately 70 dB[A], similar to that of a car travelling at 100 km/h and just at the threshold of possible annoyance (Purdue University, 2000). Also indicated in Table 3, sound levels from the construction site reach ~40 dB[A] at 1 km from the site. With the nearest dwelling located ~1.5 km from a proposed turbine, construction noise is not expected to impact dwellings in the area. Further, the construction noise is not expected to be annoyingly high beyond 61 m from the construction site as sound levels at this distance have already attenuated to approximately 70 dB[A].</i>”</p> <p>and</p> <p>The document states that “<i>While heightened sound levels during construction activities are unavoidable, the sound level assessment for the construction period shows that sounds levels at nearby residences are not expected to be significant. Various mitigation measures will be put in place during construction to limit the heightened sound levels.</i>”</p>	<p>Health Canada recommends that the proponent address the following comment in a revised project document:</p> <p>Health Canada (2017)¹ provides guidance related to short-term construction noise (< 1 year) and calculations for deriving long-term high annoyance from long-term construction noise (>1 year) which is based on ISO:1996-1 (2016)² and ANSI (2005)³).</p> <p>In quiet rural areas, Health Canada suggests that during construction, the long-term average day-night sound level (Ldn) be below 57 adjusted dBA at residences. An Ldn of 57 dBA is expected to be the threshold for widespread complaints for construction noise (United States Environmental Protection Agency or US EPA, 1974)⁴. If noise levels at residences are expected to exceed the acceptable level, it is suggested that the report include a discussion about proposed mitigation measures. See Appendix H of Health Canada (2017)¹ for suggested construction noise mitigation measures.</p> <p>If an Ldn of 57 dBA at receptors cannot be obtained with the use of quieter technology, Health Canada suggests that community consultation be undertaken to determine work schedules and to inform the public of the times and durations of noisy activities (including blasting if applicable). In general, Health Canada suggests that impulsive sources (e.g. hammering, pile driving) be avoided at night and in the early morning. Further, Health Canada suggests that noise management and noise monitoring plans, including complaint resolution, as appropriate, be included as part of an Environmental Management Plan.</p>
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¹ Health Canada. 2017. Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario. <http://publications.gc.ca/pub?id=9.832514&sl=0>

² ISO. 2016. ISO 1996-1:2016 Acoustics – Description, measurement and assessment of environmental noise – Part 1: Basic quantities and assessment procedures. www.iso.org/iso/catalogue_detail?csnumber=59765

<p>HC-04</p>	<p>Section 2.0 – Construction sound assessment (p. 5)</p>	<p>The document states that <i>“Wind generally increases ambient sound levels in an area and in combination with the vegetative cover will aid in making construction noise less noticeable at even shorter distances (Washington State Department of Transportation, 2017)”</i>.</p>	<p>Health Canada recommends that the proponent address the following comment in a revised project document:</p> <p>Health Canada notes that vegetative shields such as trees, hedges and vines generally do not absorb significant amounts of sound (ISO 9613-2:1996)⁵. As noted in Section 3.1, no attenuation was considered from topographical shielding for objects (such as barns, trees, buildings, etc.) located between the turbines and receptors. Health Canada suggests to consider addressing this contradiction and consider removing the statement that vegetative cover will aid in making construction noise less noticeable.</p> <p>In addition, according to Section 6.2.1 of Health Canada (2017)¹, any baseline measurements should not contain non-anthropogenic sounds. Not removing these sources may result in an overestimation of baseline sound pressure levels and impact baseline and future changes in percent highly annoyed (%HA) calculations. Health Canada suggests to consider ensuring any baseline noise measurements do not include any non-anthropogenic sounds.</p>
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³ ANSI. 2005. Quantities and Procedures for Description and Measurement of Environmental Sound Part 4: Noise Assessment and Prediction of Long-Term Community Response (ANSI S12.9-2005/Part 4) Standards Secretariat Acoustical Society of America.

⁴ United States Environmental Protection Agency (US EPA). 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (Report No. 550/9-74-004).

⁵ International Organization for Standardization (ISO). 1996. ISO 9613-2:1996. Acoustics — Attenuation of sound during propagation outdoors — Part 2: General method of calculation. Available at: <https://www.iso.org/standard/20649.html>

<p>HC-05</p>	<p>Section 3.1 - Worst Case Sound Assessment (p. 5)</p>	<p>The document states that <i>“The worst-case sound assessment followed a conservative methodology in calculating sound levels by assuming downwind propagation is occurring simultaneously in all directions of the wind turbines. Sound propagation in an upwind direction would result in a significant reduction of sound levels at any receptor located upwind from the turbine. This means that the resulting sound levels from the assessment are likely calculated as higher than they would be experienced.”</i></p>	<p>Health Canada recommends that the proponent address the following comment in a revised project document:</p> <p>This statement would imply that all of the receptors are located upwind, which is unlikely the case and therefore may be subject to downwind conditions, which has been modelled. Health Canada suggests that the conclusion that the assessment is overly conservative with respect to calculating sound levels by assuming downwind propagation be re-evaluated, particularly for any downwind receptors, as not all receptors will be upwind from the turbines.</p>
<p>HC-06</p>	<p>Section 3.1 – Worst Case Sound Assessment</p>	<p>The document states that <i>“No correction for special audible characteristics, such as clearly audible tones, impulses, or modulation of sound levels, was made as part of this assessment. These are not common characteristics of modern WTGs in a well-designed wind farm. It is common that WTG manufacturers guarantee the absence of tonal sound produced by the WTG. Furthermore, impulses and modulation of sound levels from the wind farm under normal conditions would not be of a level to necessitate the application of any penalty.”</i></p>	<p>Health Canada recommends that the proponent address the following comment in a revised project document:</p> <p>Wind turbines create modulation noise due to the fact that they rotate, and given the size of these proposed turbines (5.5 MW each), the expectation is that they will rotate slower than smaller wind turbines, hence modulation sounds could be more prevalent and annoying to nearby residents. Health Canada suggests to consider evaluating these sounds in any noise assessment with respect to this project.</p>

<p>HC-07</p>	<p>Section 4.1 – Low Frequency Sound (p. 7)</p>	<p>The document states that <i>“Infrasound describes sounds with a frequency less than 20 Hz and can occur when large masses are in motion. The movement of wind turbine blades has generated infrasound in the local environment in some cases. An additional assessment was completed through the Finland Low Frequency module of windPRO v3.5. This assessment showed a minimum frequency of 80 Hz observed at all receptors, 60 Hz higher than the threshold for infrasound.”</i></p>	<p>Health Canada recommends that the proponent address the following comment in a revised project document:</p> <p>Modern industrial scale wind turbines produce LFN and this is an important component of the total noise levels experienced by receptors near large wind turbines. In addition to evaluating infrasound, Health Canada suggests to consider completing an assessment of LFN (typically between 20-100 Hz).</p> <p>According to Moller and Pederson (2011)⁶, who evaluated LFN from large wind turbines, <i>“the relative amount of low-frequency noise is higher for large turbines (2.3-3.6 MW) than for smaller turbines, and the result is statistically significant for the one-third-octave bands in the frequency range 63-250 Hz...it is thus beyond any doubt that the low-frequency part of the spectrum plays an important role in the noise at the neighbors”</i>.</p> <p>LFN is not generally well perceived by the human ear. However, it may induce vibrations in lightweight structures in residences or sleeping quarters that may be perceptible or cause a “rattle.” The properties of LFN allow it to travel farther distances with less atmospheric attenuation than higher frequencies. Shepherd and Hubbard (1991)⁷ indicate that low frequencies (below 100 Hz) are only attenuated by 3 dB per doubling of distance downwind of turbines for distances of 0.3 to 20 km, and attenuated by 6 dB per doubling of distance upwind of turbines from 0.4 to 3 km.</p> <p>LFN is also less susceptible to conditions that mitigate the transfer of noise from outdoors to indoors including structural barriers, environmental conditions, and topography. Research indicates that annoyance related to noise is greater when LFN is present (ISO 1996-1:2003)⁸ and one of the main reasons is the annoyance caused by rattles (Schomer and Neathammer, 1987⁹; Schomer and Averbuch, 1989¹⁰). In addition, very little change in the sound pressure level at lower frequencies is needed to</p>
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			<p>have a disproportionate increase in subjective loudness. This annoyance may result in increased complaints from nearby residents.</p> <p>The American National Standards Institutes (ANSI S12.9-2005)³ indicates that there is evidence that noise-induced rattles are very annoying, and this annoyance may be independent of the number or duration of events. To prevent rattles from LFN and the associated annoyance from this effect, the ANSI indicates that the (energy) sum of the sound levels in the 16-, 31.5- and 63-Hz octave bands be less than 70 dB. Additionally, ANSI³ provides a more sophisticated mathematical procedure for assessing % HA when LFN is present. Health Canada recommends using the ANSI procedure when the C-weighted Ldn exceeds the A-weighted Ldn by more than 10 dB. The procedure is further outlined in Appendix D of ANSI S12.9-2005³.</p> <p>Based on current research, large wind turbines produce LFN, modeling may underestimate LFN levels during turbine operation, and annoyance is greater when LFN is present. If the sum of sound levels in the 16-, 31.57- and 63 Hz octave bands exceeds 70 dB, Health Canada recommends that additional mitigation be implemented in order to protect nearby residents from LFN. If the C-weighted Ldn exceeds the A-weighted Ldn by more than 10 dB, the percentage highly annoyed can be calculated using ANSI S12.9-2005³.</p>
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⁶ Moller, H. and C. S. Pederson. 2011. Low-frequency noise from large wind turbines. J. Acoust. Soc. Am. 129(6), June 2011.

⁷ Shepherd, K.P., Hubbard, H.H. 1991. Physical characteristics and perception of low frequency noise from wind turbines, Noise Control Engineering Journal 36(1), pp 5-15.

⁸ International Standards Organization (ISO). 2003. Acoustics - Description, measurement and assessment of environmental noise - Part 1: Basic quantities and assessment procedures. ISO 1996-1:2003.

⁹ Schomer, P.D. & Neathammer, R. D. (1987). The Role of Helicopter Noise-Induced Vibration and Rattle in Human Response. Journal of the Acoustical Society of America. 81(4), 966-976.

¹⁰ Schomer, P. D. and Averbuch, A. 1989. Indoor Human Response to Blast Sounds that Generate Noise. Journal of the Acoustical Society of America. 86(2), 665-671.

<p>HC-08</p>	<p>Section 5.0 – Conclusion and Mitigation (p. 7)</p>	<p>The document states that <i>“The operational sound level modelling for the Project demonstrates that the sound levels expected to be experienced at receptors under worst case conditions adhere to the Nova Scotia guidance. Should excessive sound emissions from the Project be reported during operation at nearby receptors, screening mitigations will be explored for feasibility in the area. Such mitigation measures for heightened sound levels could include increasing vegetation between the receptor and emitting source, and any other appropriate technology available at the time of the required mitigation.”</i></p>	<p>Health Canada recommends that the proponent address the following comment in a revised project document:</p> <p>The limited effectiveness of vegetation as a noise mitigation measure has been noted above (see HC-04). In addition, there are no specific mitigation measures described for the operation phase. Health Canada suggests to consider ensuring that the “appropriate technology” referred to in Section 5 of the Appendix C be defined and elucidated.</p> <p>Additionally, Health Canada suggests to consider implementing a formalized complaint-response protocol (i.e. a formalized means of receiving and responding to complaints in a timely fashion) with additional monitoring and mitigation measures defined, particularly in the event of public complaints.</p>
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Date: 23 March, 2022

To: Janice Ray, Environmental Assessment Officer

From: Environmental Services, Nova Scotia Department of Public Works

Subject: Westchester Wind Project

The Nova Scotia Department of Public Works (NSDPW) staff have reviewed the Environmental Assessment for the Natural Forces Developments Limited Partnerships' Westchester Wind Project and prepared the following:

General comments:

1. Any work zones created on provincially owned roads require compliance with the appropriate section of the Nova Scotia Temporary Workplace Traffic Control Manual (available online at [Temporary Workplace Traffic Control Manual | novascotia.ca](https://www.novascotia.ca)).
2. The Proponent has indicated a possible requirement for speed limit signs, warning signs, detour signs in addition to traffic control. This requires approval of the District Traffic Authority to erect these signs, with an appropriate and approved signage plan.
3. A reference was made to contacting local officials to determine if a Transportation Study is required. This information is critical so that a proper highway and structural analysis of the delivery route can be completed (clearance on underpasses, weight on overpasses, turning radii for large trucks, spring weight restrictions, etc.).
4. A reference was made to avoid delivery during peak travel hours. This should be adhered to as much as possible.

Section 9.0: Other Approvals Required, Table 57: Required Approvals and Permits for Project Completion, Page 181

1. The proponent has indicated modifications required for intersections of provincially owned roads at Westchester Road and Wentworth Collingwood Road. This will require a Working Within Highway Right of Way Permit (available from the local Area Manager). This permit must be included in the list of provincial permits required in Table 57, Page 181 of the report. This table also references the former name of the Department and must be corrected.

2. References are made to overweight/oversized loads for transportation of turbine components. This requires a Special Moves Permit. The proponent is encouraged to reach out to our Departmental contact for Special Moves Permits, Manuel Abreu at Manuel.Abreu@novascotia.ca as soon as possible to determine and verify the next steps.

Sincerely,

Environmental Services
Department of Public Works

Date: April 7, 2022
To: Janice Ray, Environmental Assessment Officer
From: NSECC, Protected Areas and Ecosystems Branch
Subject: **Westchester Wind Project**

The Protected Areas and Ecosystems (PAE) Branch is responsible for the planning, designation, and management of provincially designated protected areas (wilderness areas and nature reserves).

The Branch also promotes biodiversity conservation and ecological connectivity on unprotected lands that may affect the ecological health and resilience of sites in the provincial protected areas network, and/or sites that may be of interest for future protected area contributions towards provincial and federal protected area targets.

NSECCs' *Guide to Preparing an EA Registration Document for Wind Power Projects in Nova Scotia (Revised 2021)* acknowledges the Province's commitment to enhanced land protection, and encourages proponents to contact the PAE Branch to review if project proposals may overlap with lands of interest for conservation or protection. To date, the proponent has not contacted the Branch.

The VEC section of the Guide also encourages proponents to avoid relatively intact natural areas and lands that, due to their location on the landscape and ecological condition, are important for ecological connectivity, including between relatively intact natural areas and between protected areas. Emphasis on ecological connectivity is informed, in part, by direction from the New England Governors and [Eastern Canadian Premiers Resolution 40-3 - Resolution on Ecological Connectivity, Adaptation to Climate Change, and Biodiversity Conservation](#). The Guide also provides guidance to proponents to consider cumulative effects of their projects.

Considering the above, the Branch reviewed the registration document primarily through two lenses:

- 1) Could the proposed project affect existing protected areas and/or does it overlap with lands that may be of interest for future protection, and if so, how is this addressed in the registration document?
- 2) Could the proposed project (i) cause fragmentation of relatively intact natural areas and/or (ii) overlap with lands that may be important for landscape-scale

ecological connectivity; and are sufficient mitigation measures proposed to address potential impacts?

With respect to Question 1, no existing or candidate protected areas occur within the proposed project site. While NSECC intends to collaborate with private landowners interested in protecting lands that could contribute to provincial protected area targets, lands within the project site have not been assessed for potential protection.

With respect to Question 2, the registration document does not address how the project would affect landscape-scale ecological connectivity through cumulative impacts of additional and more permanent landscape fragmentation, or how such impacts will be mitigated.

This is a significant information gap as negative impacts can be expected given the project's broad spatial extent, including road construction and expansion requirements, in a location between large concentrations of relatively intact habitat (much of it designated wilderness area and/or with high habitat suitability for endangered mainland moose).

While much of the project site itself is ecologically degraded from past conversion to blueberry fields and more recent clearcutting and forestry roads, its connectivity and biodiversity value is held somewhat intact by the lack of human settlement and permanent built infrastructure, and the presence of remnant natural forest patches. These factors, coupled with the project site's location, give it value for sustaining regional ecological connectivity through the Cobequids, including protected areas in the region.

To address the above it is recommended that:

- **In conjunction with NSECC Protected Areas and Ecosystems Branch, the proponent provide an analysis of potential landscape-scale biodiversity and ecological connectivity impacts and prepare a strategy to mitigate such impacts. Mitigation measures to be considered should include those aimed at (i) reducing road density within the project site, (ii) retaining and restoring remnant natural forest patches, (iii) limiting impacts of public vehicle use, and (iv) acquiring land for protection to support regional ecological connectivity.**

Quinn, Candace M

From: Tutty, Bridget R
Sent: March 4, 2022 3:02 PM
To: Patrick Butler
Cc: Ray, Janice; Quinn, Candace M
Subject: Re: Westchester Wind Project - Missing ARIA

Good afternoon ,

Thank you for your email. The proponent has not received approval from CCH for either Benjamin's Mills or Westchester Wind project ARIAs. As they are only draft reports they are not permitted to be posted, and we will not be considering them in the review. Once the reports are finalized we can forward them to you if you like. Feel free to call and discuss.

Thank you
Bridget Tutty

Sent from my iPhone

On Mar 4, 2022, at 2:43 PM,

@mikmaqrights.com> wrote:

**** EXTERNAL EMAIL / COURRIEL EXTERNE ****

Exercise caution when opening attachments or clicking on links / Faites preuve de prudence si vous ouvrez une pièce jointe ou cliquez sur un lien

Good Afternoon,

We are in the process of reviewing the Westchester Wind Project and it appears the ARIA is missing from the uploads at : <https://novascotia.ca/nse/ea/Westchester-Wind-Project/>

It should be Appendix N according to the Table of Contents but there is no upload. Can you please forward our office the ARIA or update the Nova Scotia EA website.

Wela'lin,

Mi'kmaq Energy and Mines Advisor



Kwilmu'kw Maw-Klusuaqn Negotiation Office
Mi'kmaq Rights Initiative
75 Treaty Trail
Truro, Nova Scotia

B6L 1W3

P: 902-379-2209

F: 902-379-2186

www.mikmaqrights.com

This email and any files transmitted with it contains information that is privileged, confidential and under the protection of the February 23, 2007 Mi'kmaq-Nova Scotia-Canada Framework Agreement. This message is intended solely for the use of the individual or entity to whom it is addressed. Any unauthorized use, copying, review or disclosure is prohibited. If received in error, please notify the sender immediately by email and delete this message from your system. Thank you for your cooperation.

Quinn, Candace M

From: Environment Assessment Web Account
Sent: March 28, 2022 8:45 AM
To: Ray, Janice
Subject: FW: NCNS - Comments - Westchester Wind Project
Attachments: NCNS - Westchester Wind Project.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

From: @mapcorg.ca>
Sent: March 24, 2022 1:24 PM
To: Environment Assessment Web Account <EA@novascotia.ca>
Cc: ' @ncns.ca'; netcomm@ncnsnetcomm.ns.ca; '
@mapcorg.ca>; @mapcorg.ca>
Subject: RE: NCNS - Comments - Westchester Wind Project

**** EXTERNAL EMAIL / COURRIEL EXTERNE ****

Exercice caution when opening attachments or clicking on links / Faites preuve de prudence si vous ouvrez une pièce jointe ou cliquez sur un lien

To whom it may concern,

Please find attached to this email the Maritime Aboriginal Peoples Council's (MAPC) comments, written on behalf of the Native Council of Nova Scotia (NCNS), regarding the environmental assessment registration of Westchester Wind Project, located in Cumberland County, Nova Scotia. If there are any questions or need for clarification, please feel free to contact MAPC directly.

Habitat and Impact Assessment Manager

Maritime Aboriginal Aquatic Resources Secretariate
172 Truro Heights Road
Truro Heights, Nova Scotia, B6L 1X1

Office: 902 895 2982



This email has been checked for viruses by Avast antivirus software.
www.avast.com



Native Council of Nova Scotia

The Self-Governing Authority for Mi'kmaq/Aboriginal Peoples residing Off-Reserve in Nova Scotia throughout traditional Mi'kmaq Territory

"Going Forward to a Better Future"

P.O. Box 1320
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B2N 5N2

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chieflaugustine@ncns.ca
www.ncns.ca

Aboriginal/Treaty Rights
Negotiations Facilitating
Directorate

NCNS Citizenship
Information Office

Education & Student
Services

Rural & Native
Housing Group

Aboriginal Peoples
Training & Employment
Commission (APTEC)

Netukulimkew'e'l
Commission

Wenjikwom Housing
Commission

Social Assistance
Recipient Support for
Employment & Training
(SARSET)

Micmac Language
Program

Native Social
Counselling Agency

Child Help Initiative
Program (CHIP)

E'pit Nuji Ilmuet
Program (Prenatal)

Reaching Home
Indigenous Program

Parenting Journey
Program

Youth Outreach Program

Mi'Kma'ki Environments
Resource Developments
Secretariat (MERDS)

Aboriginal Connections
in Trades & Apprenticeship
(ACITA)

March 24, 2022

Environmental Assessment Branch
P.O. Box 442
Halifax, Nova Scotia
B3J 2P8

RE: Westchester Wind Project

To Whom It May Concern,

The Native Council of Nova Scotia was organized in 1974 and represents the interests, needs, and Rights of Off-Reserve Status and Non-Status Section 91(24) Indians/Mi'kmaq/Aboriginal Peoples continuing on our Traditional Ancestral Homelands throughout Nova Scotia as Heirs to Treaty Rights, Beneficiaries of Aboriginal Rights, with Interests to Other Rights, including Land Claim Rights.

The Native Council of Nova Scotia (NCNS) Community of Off-Reserve Status and Non-Status Indians/Mi'kmaq/Aboriginal Peoples supports projects, works, activities and undertakings which do not significantly alter, destroy, impact, or affect the sustainable natural life ecosystems or natural eco-scapes formed as: hills, mountains, wetlands, meadows, woodlands, shores, beaches, coasts, brooks, streams, rivers, lakes, bays, inland waters, and the near-shore, mid-shore and off-shore waters, to list a few, with their multitude of in-situ biodiversity.

Our NCNS Community has continued to access and use natural life within those ecosystems and eco-scapes where the equitable sharing of benefits arising from projects and undertakings serve a beneficial purpose towards progress in general and demonstrate the sustainable use of the natural wealth of Mother Earth, with respect for the Constitutional Treaty Rights, Aboriginal Rights, and Other Rights of the Native Council of Nova Scotia Community continuing throughout our Traditional Ancestral Homeland in the part of the Mi'kma'ki now known as Nova Scotia.

Current State of the Westchester Wind Project Environmental Assessment Registration Document

At present, we do not have any comments regarding the Westchester Wind Project Registration Document. We do however wish to be included and informed of any further developments regarding the project, including being made aware of the final turbine layout of the proposed 12 out of 16 locations. Thank you for the opportunity to review the Registration Documents for the above-noted project.

Consultation with the Mi'kmaq of Nova Scotia

We would like to take this opportunity to reiterate that it is important for all proponents of projects to understand that the Off-Reserve Aboriginal Community represented by the NCNS is included within the definition of the word “Indian” of Section 91(24) of the *Constitution Act*, 1982. The Supreme Court of Canada in a landmark decision in *Daniels v. Canada (Indian Affairs and Northern Development)*, 2016 SCC 12, declared that “the exclusive Legislative Authority of the Parliament of Canada extends to all Indians, and Lands reserved for the Indians”, and that the “word ‘Indians’ in s. 91(24) includes the Métis and non-Status Indians”.¹ Since 2004, in multiple decisions passed by the Supreme Court of Canada: *Haida Nation*², *Taku River Tlingit First Nation*³, and *Mikisew Cree First Nation*⁴, has established that,

Where accommodation is required in making decisions that may adversely affect as yet unproven Aboriginal Rights and title claims, the Crown must balance Aboriginal concerns reasonably with the potential impact of the decision on the asserted right or title and with other societal interests.⁴

Further, both the Government of Nova Scotia and the Government of Canada are aware that the “Made in Nova Scotia Process”, and the *Mi'kmaq-Nova Scotia-Canada Consultation Terms of Reference* does not circumvent the Provincial Government’s responsibility to hold consultations with other organizations in Nova Scotia that represent Indigenous Peoples of Nova Scotia. While the proponent may have to engage with the thirteen Mi'kmaq First Nations through the Assembly of Nova Scotia Mi'kmaq Chiefs, represented by the Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO), the KMKNO does not represent the Off-Reserve Aboriginal Community who has elected to be represented by the NCNS, since 1974.

We assert the Off-Reserve Aboriginal Communities, as 91(24) Indians, are undeniably heirs to Treaty Rights and beneficiaries of Aboriginal Rights as substantiated by Canada’s own Supreme Court jurisprudence. As such, there is absolutely an obligation to consult with the Off-Reserve community through their elected representative body of the NCNS. The Crown’s duty to consult with all Indians extends beyond that only with Indian Act Bands, or as through the truncated Terms of Reference for a Mi'kmaq Nova Scotia Canada Consultation Process.

Going Forward To
A Better Future

Habitat and Impact Assessment Manager
Maritime Aboriginal Aquatic Resources Secretariate

¹ *Daniels v. Canada (Indian Affairs and Northern Development)*, 2016 SCC 12, [2016] 1 S.C.R. 99

² *Haida Nation v. British Columbia (Minister of Forests)*, (2004), 3 S.C.R. 511.

³ *Taku River Tlingit First Nation v. British Columbia (Project Assessment Director)*, (2004), 3 S.C.R. 550.

⁴ *Mikisew Cree First Nations v. Canada (Minister of Canadian Heritage)*, (2005), 3 S.C.R. 388.

C..

, Chief and President, NCNS
, Commissioner, Netukulimkewe'1 Commission
Director of Intergovernmental Affairs, MAPC



March 25, 2022

Janice Ray, Environmental Assessment Officer
Nova Scotia Environment and Climate Change
P.O. Box 442
Halifax, NS
B3J 2P8

RE: Environmental Assessment Registration Document – Westchester Wind Project, Cumberland County, Nova Scotia – Offer to Consult with the Sipekne'katik First Nation

Dear Ms. Ray:

Thank you for your information regarding the above-mentioned project. Please note that Sipekne'katik has formally adopted and launched our community-based consultation process under the Sipekne'katik Governance Initiative (SGI) Consultation Protocol.

The above-mentioned project may have implications impacting the aboriginal rights, treaty rights and title of the Mi'kmaq. In order to address any correspondence for legal consultation all projects must go through the SGI consultation application process. Therefore, we are returning the information to your office pending application and/or review by the Sipekne'katik SGI Process.

We are enclosing an information brochure outlining the six-phase approach to consultations and an application for your perusal.

If you have any questions or require additional information, please contact C
@gmail.com.

Sincerely,

Original signed by:

Sipekne'katik Governance Initiative

Encl.

Sipekne'katik Governance Initiative: Six Phases to Consultation

Consultation process application form:

Please ensure all sections are filled out and application fee is included. Incomplete applications will be returned.

Make Payable to: Sipekne'katik First Nation

Re: Consultations- Name of Department and project.

PART I

Federal or Provincial Crown:

Name: _____ Project name: _____

Lead department or contact: _____

Government Department: _____

Federal Environment and Climate Change Provincial Proponent Other

Relevant statute, acts, regulations or governing bodies. _____

List: _____

Legislation/overlaps/jurisdiction/Statutes etc. _____

PART II

About the Project: _____

Location: _____

Size: _____

Scope: _____

Jurisdiction status: _____

Time line for completion. _____

Part III

Application fee:

Payable to Sipekne'katik Band: Re: SGI project name/department application fee (ie: DFO - Tusket dam)

Upon completion of the application and fee, the application will proceed to electronic records department and an electronic file # will be assigned to each project before proceeding to the Strength of claim/impact to rights and review stage.

Upon completion of the application process and review stage the file will be returning to the appropriate department with the following:

- Preliminary issues regarding the Impact to the established Treaty Rights, the Aboriginal title of the Mi'kmaq and the impact to Aboriginal title of the Mi'kmaq.
- Level of consultation required to community/government.
- Level of capacity needed for formal consultations
- Cost of consultation negotiations for formal consultation process with community rights holders.

Further considerations will include the scope and cost of consultations in regards to

- Level of community engagement (based upon phase two assessments)
- Cost of consultation, interpretation, science and experts needed, cost to gather community input, community consultation, level of governance engagement, referendum, materials, communication, print, admin etc.
- Cost of Lnu governments participation. Chief, council, Elders council and Grand council.

For more Information

Sipekne'katik Governance Initiative
Secretariate

Phone: 902 835-2869

Fax: 902 758

Email: consultation@sipeknekatik.ca

522 Church Street,

Indian Brook 14,

N.S., B0N2H0



For office use only

Date received: _____

Assessment number: _____

Assessment start date: _____

Assessment Phase: _____





Sipekne'katik Governance Initiative: Six Phases to Consultation

Considerations for capacity needs for project:

The proposed workplan and implementation may include or consider the following:

- Any specialized studies, community use, ecological inventory, baseline data, science, marine, archaeological, etc,
- Identify any indigenous expertise required
- Level of community engagement required
- Level of governance engagement required
- Human resource/staff needs
- Interpretation needs
- Historical records/archive research
- Communication/print
- Legal review
- Cost of plebiscite or referendum for consent-based decision making when appropriate.
- IT needs
- Logistical cost of space, printing, meals and hospitality, and support staff
- Budgetary considerations

Conduct the formal community consultation process.

Phase 6: Outcome based

In support:

Upon completion of community consultations, the results in support or a project and process will proceed and may include letters of support, development of partnership agreements, negotiations of impact benefit agreements, compensation, etc.

Not in support:

Return to governance and community for next steps. Possible options include: courts processes, negotiations for alternative process with minimal impairment, fair compensation, community actions, International and legal options.

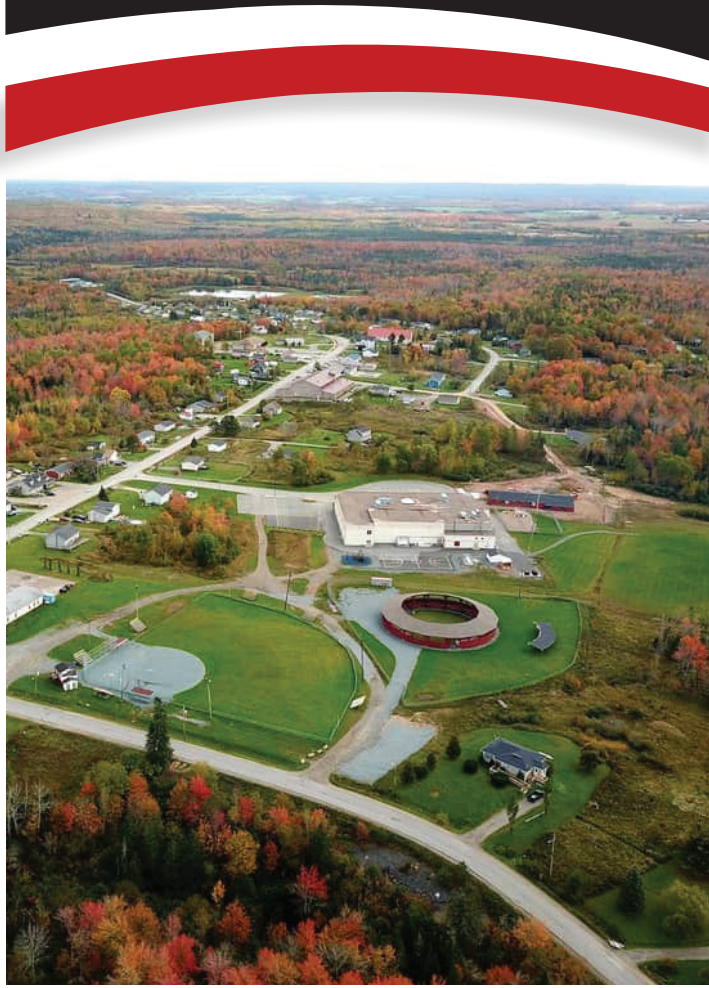
Projects may need adjustments and accommodations which may restart the consultation process.



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The Sipeknekatik governance initiative Protocol-Navigating a new path forward (SGI) has been established by the community of Sipeknekatik on how they want to be engaged and consulted on regarding matters which impact their Aboriginal rights, treaty rights and Mikmaq title lands. The consultation protocol was enacted into law in the summer of 2020.

The Sipeknekatik Chief and council understand the duties owed to its members when acting on behalf of the community. The SGI protocol respects the fiduciary duties owed to its members by the Chief and council under the Indian Act, but also, recognizes and respects the duties owed to rights holders in regards to matters affecting the treaty rights, Aboriginal rights and title lands of the Sipeknekatik Mikmaq.

Whereas, the Sipeknekatik governance Initiative protocol is based on impacts to rights and with the legal and fiduciary duties owed to its members in mind, the following six phase approach has been adapted as the self-governing regulatory process for dealing with consultations.

Phase 1: Application stage/fee structure:

Application forms for each project must be completed with the applicable application fee.

The application process will introduce each project, outline the scope in size, legal jurisdiction and relevant legislation of each project.

Upon completion of the application and receipt of the application fee, the application will proceed to the electronic records department and an electronic file number will be assigned to each project.

The administrative fee is to cover the cost on establishing a legal electronic record, assign a project file number and to obtain all pertinent information for the project to enter into Phase two: The Strength of claim and the potential impact to rights phase.



Phase 2: Strength of claim/assertion stage.

With all relevant information available, the applicant/crown must outline the potential impact to rights and risk of their project.

The SGI Strength of claim process will determine and outline any preliminary issues regarding the existing rights of the Mikmaq and the potential impact to:

- i. Established treaty rights of the Mikmaq
- ii. Aboriginal rights held by the Mikmaq
- iii. Aboriginal title of the Mikmaq to the project area.

Based upon the strength of claim process, a report for each project will proceed to the community governance review stage in regards to the determination of the level of consultation required by the community, by the Sipeknekatik government and the potential cost of formal community consultation.

Phase 3: Review stage

The Strength of claim report will proceed to a three-part review process consisting of:

- I. in house legal review
- II. Community Experts/committee review
- III. Governance review

After the review process, the project file will proceed to negotiations regarding the scope of consultations needed and the cost for capacity for community process.

Phase 4: Negotiations: Scope and cost of consultation

Consideration for negotiations will include:

- Level of engagement needed (based upon phase two assessments).
- Cost of consultation, interpretation, science and experts needed, cost to gather community input, community consultation, level of governance engagement, referendum, materials, communication, print, admin etc.
- Negotiations will be based upon evolving case law regarding the capacity of community and the reasonable cost of consultations.

Phase 5: Community Consultation process

Part 1

Development of consultation workplan:

A project based workplan will be developed for each project to ensure community capacity needs are met, determine the scope of project and potential impact to rights and ensure the best available information be provided in a manner appropriate for community consideration.

Part 2

Implementation of the workplan:

The formal community consultation process will follow the approved workplan and timeline established under the SGI process. The depth of consultation and scope must be consistent with the nation to nation-based relationship of the Mikmaq and the crown.



Our Rights. Our Future.

March 31st, 2022

Annamarie Burgess, MCIP, P. Eng.
Water Resources Management Unit
Sustainability and Applied Science Division
Nova Scotia Environment and Climate Change
Phone: (902) 219-4804
Email: Annamarie.Burgess@novascotia.ca

**Re: Environmental Assessment Registration Document – Westchester Wind Project,
Cumberland County, Nova Scotia - Offer to Consult with the Assembly of Nova Scotia
Mi'kmaw Chiefs**

Ms. Ray,

I write in response to your letter dated February 23, 2022, requesting consultation under the *Terms of Reference for a Mi'kmaq-Nova Scotia-Canada Consultation Process (ToR)* as ratified on August 31, 2010, on the above noted project. We wish to proceed with consultation.

Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO) supports Nova Scotia's intentions to generate clean, renewable energy, and reduce Nova Scotia's reliance on imported energy sources through the development of renewable energy generation and supports the province's objectives of achieving a 53% reduction in greenhouse gas (GHG) emissions by 2030 and becoming net-zero by 2050. It is KMKNO's understanding that Natural Forces intends to bid into upcoming renewable energy procurement program, the Nova Scotia Rate Based Procurement Program, in partnership with Wskijnu'k Mtmno'taquinow Agency Ltd (WMA). Our office recommends that the Nova Scotia Department of Natural Resources and Renewables (NRR) considers this project as a candidate for this program.

The Mi'kmaq Nation of Nova Scotia have a general interest in all lands and resources in Nova Scotia as the Mi'kmaq Nation has never surrendered, ceded, or sold the Aboriginal title to any of its lands in Nova Scotia. The Mi'kmaq have a title claim to all of Nova Scotia and as co-owners of the land and its resources.

It is our office's understanding that the Archaeological Resource Impact Assessment (ARIA) for this project is currently under review by Communities, Culture, Tourism and Heritage (CCTH) and the proponent. Please keep us updated on the status of this ARIA and our office will comment on the full assessment when it becomes available. Based on the documentation available at this time, KMKNO's Archaeological Research Division (ARD) has provided the following.

After review of the Westchester Wind Project Environmental Assessment (EA) Registration document, particularly Section 6.4 Cultural and Heritage VECs (pp. 123-127) and Table 52 (pp. 169). We would like to emphasize that this is an extensive project with a footprint that accounts for approximately 88 hectares (ha) that will require upgrades to existing roads, the creation of new access roads, the development of turbine foundations, crane pads, the development of a substation, collector lines, a transmission line and cleared right of way, in addition to the construction of up to 16 turbine foundations. The project does exhibit complex impacts within a landscape that has a substantial record of Mi'kmaw archaeological heritage. There are many areas of elevated concern, specifically where water courses intersect directly with locations slated for construction work on foundations and pads, electrical lines, road development or improvement. We must encourage the expansion of high potential areas to include elevated signalling and surveillance sites that maximizes topographic vistas.

It is strongly recommended all proposed disturbances or impact areas within the Westchester Wind Project study area be subjected to subsurface testing before construction activities commence. Disturbance is defined, for archaeological purposes, as the dislocation of soils and/or sediments, such as that by heavily treaded or tracked vehicles, as well as purposeful excavation by heavy equipment. We would also encourage construction activities be monitored by a qualified archaeologist.

The Assembly of Nova Scotia Mi'kmaw Chiefs (ANSMC) expects a high level of archaeological diligence with evidence-based decisions grounded in an understanding of the subsurface environmental data. The Maw-lukutijik Saqmaq (Assembly of Nova Scotia Mi'kmaw Chiefs) expects subsurface data, adequate to eliminate concern for presence, protection, and management of Mi'kmaw archaeological and cultural heritage as part of assessment of potential in advance of any development.

Our office is encouraged to see that Natural Forces has reached out to Membertou Geomatics to scope a Mi'kmaq Ecological Knowledge Study (MEKS) at the Project site. We strongly recommend that an MEKS be completed for Westchester and future sites; in accordance with the MEKS protocol.

It is our understanding that Natural Forces has been in contact with the Mi'kmaw Conservation Group (MCG) for discussions on moose monitoring opportunities for Westchester and future wind project sites. We strongly encourage this partnership to allow for a Two-Eyed Seeing Approach and to incorporate traditional knowledge into any future monitoring efforts.

The Mi'kmaq are also concerned on how these wind turbine generators will impact the migratory routes and habitats of birds, bats and other species that may reside in the area. Our office should be informed of future studies and surveys that address these concerns. The Mi'kmaw Conservation Group should participate in any of these surveys where possible to ensure a Two-Eyed Seeing Approach.

Please continue to keep our office informed and consult on future permits and approvals for this project including the wetland alteration approvals and watercourse alteration approvals or

Fisheries Act Authorization that will be required. Please contact Mi'kmaw Energy and Mines Advisor, at KMKNO for any further questions.

Director of Consultation
Kwilmu'kw Maw-Klusuaqn Negotiation Office

c.c.:
Kwilmu'kw Maw-klusuaqn Negotiation Office
Nova Scotia Department of Natural Resources and Renewables
Nova Scotia Department of Natural Resources and Renewables Nova Scotia Office
of L'nu Affairs