

## **Comment Index**Westchester Wind Project

#### Government

Number	Source	Date Received
1	Nova Scotia Department of Environment and Climate Change - Water Resources Management Unit	January 31, 2023
2	Nova Scotia Department of Environment and Climate Change – Air Quality Unit	January 30, 2023
3	Nova Scotia Office of L'nu Affairs	January 30, 2023
4	Fisheries and Oceans Canada	January 30, 2023
5	Nova Scotia Department of Environment and Climate Change – Inspection, Compliance and Enforcement Division	January 30, 2023
6	Nova Scotia Department of Natural Resources and Renewables	February 1, 2023
7	Environment and Climate Change Canada	February 1, 2023
8	Nova Scotia Department of Environment and Climate Change – Protected Areas and Ecosystems Branch	January 31, 2023
9	Nova Scotia Department of Communities, Culture, Tourism and Heritage	February 4, 2023

#### **Public**

Number	Source	Date Received
1	Anonymous	January 30, 2023
2	Anonymous	January 31, 2023



Barrington Place 1903 Barrington Street Suite 2085 Halifax, Nova Scotia Canada B3J 2P8

Date: January 31, 2023

To: Candace Quinn, Environmental Assessment Officer

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

CC: Director, Water Branch and Manager, Water Resources Management Unit

Subject: Westchester Wind Project, Cumberland County, Nova Scotia

#### Scope of review:

The following review of the Westchester Wind Project (Westchester Mountain in Cumberland County, NS) Addendum to the Environmental Assessment Registration Document (EARD) (Natural Forces Developments Limited Partnership, February 2022) is specific to the mandate of the NSE Wetlands Program. 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 Addendum.

#### **Reviewed Documents:**

Westchester Wind Project Addendum to the Environmental Assessment Registration, Natural Forces Developments LP., December 15<sup>th</sup>, 2022.

#### **General Comments:**

Wetlands were avoided where possible in the proposed design. Fifteen wetlands were identified in the study area (within 30m of the potential development area (PDA)). Seven wetlands have the potential to be altered during construction including three Wetlands of Special Significance (WSS). Six wetlands (WL 3, 4, 6, 7, 11, and 12) were identified as WSS, of these three were identified within the PDA and have the potential for alteration, WL 3, 6 and 7. The proponent has stated "The final design should consider if the existing road requires upgrades. If so, upgrades should be considered that avoid altering, maintaining, restoring, or enhancing the potential WSS".

No pole placement of the collector line was provided in this EARD addendum, and therefore, it is hard to determine the footprint of the project and what wetlands have the potential to be impacted. The proponent has stated that during the final design the line will span the wetland.

Not all the information requested in the EARD review was provided in the addendum submission including maps clearly indicating the locations of the project in relation to the wetland and other natural features (i.e., watercourses, fish habitat, SAR/SOCC).

Gap Assessment					
Identify Gap	Can it be addressed in another permit/approval or with a T&C?	Define/provide detail	Risk of gap and this approach?		
Wetland 3 is a WSS located within the PDA including the proposed road and the proposed Turbine 2 pad.	Yes, T&C	Based on the mapping and details included in Table 11 pg. 54 there is the potential for Wetland 3 to be altered.	Potential for loss/alteration of a Wetland of Special Significance.		
Wetland 6 is a WSS and based on the mapping it has not been delineated within the existing roadway. The wetland is a WSS, and it is not clear if road upgrades will cause alteration to the wetland.	Yes, T&C	The wetland delineation for wetland 6 was not completed within the study area. Based on the mapping and details included in Table 11 pg. 54 there is the potential for Wetland 6 to be altered during construction.	Potential for loss/alteration of a Wetland of Special Significance.		
Wetland 7 is a WSS located within the PDA including an existing road that spans a section of the wetland.	Yes, T&C	Based on the mapping and details included in Table 11 pg. 54 there is the potential for Wetland 7 to be altered during construction.	Potential for loss/alteration of a Wetland of Special Significance.		
Collector Line pole placement not identified.	Yes, T&C	Pole placement was not provided and buffers around wetlands were not described. Confirm that pole placement is not in wetlands.	Potential for wetland alteration/loss.		

#### **Summary of Recommendations:**

There is uncertainty around the boundary of wetland 6 within the existing roadway. Based on the mapping provided only a portion of the wetland was delineated and the rest was determined by modelling. The entire wetland should be delineated to access potential impacts.

The *NS Wetland Conservation Policy* (2011) objective is to "manage human activity in or near wetlands, with the goal of no loss in Wetlands of Special Significance (WSS) and the goal of preventing net loss in area and function for other wetlands". Based on a review of the project, there is the potential for loss of WSS (WL 3,6, and 7) which is not consistent with the *NS Wetland Conservation Policy*. The final construction design should confirm how these wetlands are being avoided from direct or indirect alteration.

Prior to construction, the proponent should provide to ECC a construction plan with the pole placement around the wetlands and if possible, maintain a 30 metre buffer. A wetland management plan including wetland mitigations should be provided to ensure wetland avoidance and protection. Only hand clearing should occur in wetlands otherwise it is considered wetland alteration and an approval is required. The *Wetland Conservation Policy* only allows alteration to WSS for necessary public function projects.

Should the Project be approved, the proposed activities will be subject to the ECC Wetland Alteration Approvals process prior to any wetland impacts. The proponent should utilize Nova Scotia's Wetland Alteration Application's Guided Template for the permit applications.



#### **Environment and Climate Change**

Date: January 30<sup>th</sup>, 2023

To: Candace Quinn, Environmental Assessment Officer

From: Air Quality Protection Advisor, Air Quality Unit

Subject: Westchester Wind Project, Cumberland County, Nova Scotia

#### Scope of review:

This review focuses on the following mandate: Noise

#### Technical Comments:

The addendum with respect to noise has been submitted following the Minister's request for further information:

Provide justification for the noise assessment methodology used and how the modelling software addresses these larger scale commercial wind-turbines (5 MW) and their sound level outputs at the nearest receptor locations. Refer to Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise (Health Canada, 2017) as necessary. The noise assessment should also ensure the modulation of sounds from operations, low frequency noise, proposed mitigation and monitoring.

The revised noise impact assessment is based on a configuration of twelve 5.5MW turbines. Previously, the assessment considered sixteen turbine locations, although the proponent stated that the intention was to only use twelve locations. Consequently, the noise derived from the wind project in the amended assessment is lower at receptor locations than previously reported.

The modelling software that was used to assess impacts is based on international standard ISO 9613. The model assumes that the wind is blowing in all directions all of the time, and therefore represents worst case with respect to wind direction. The assessment provides details on the assumptions made, with sufficient justification, including the use of a surrogate baseline noise level for cumulative impacts. The proponent has used provincial and federal guidance, including Health Canada's Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise.

The proponent reports that the manufacturer guarantees that the turbines will not generate any tonal noises. Modulation and impulsive sounds were not considered to be 'of a level to necessitate the application of any penalty'.

#### **Guidance for Reviewers – Environmental Assessments**

Environmental Assessment Branch, Environment and Climate Change

Low frequency noise impacts have been assessed, with no infrasound predicted to occur at the receptor locations. The assessment indicates that the project will use natural measures to decrease noise impacts, for example, through minimizing the removal of scrub to promote sound absorption.

The proponent has developed an Environmental Management Plan and a Complaints Procedure. Complaints will be addressed within five business days, and, where it is considered necessary, a monitoring program will be used to investigate noise issues. This approach is consistent with the Department's approach for investigating noise complaints.

The revised assessment shows that the noise levels from the proposed development that are predicted to be experienced at receptor locations are lower than the surrogate baseline noise level by several decibels. This indicates that the development is predicted to have minimal impact on the noise levels at receptor locations. All cumulative noise levels are below the permissible sound level for rural areas during the nighttime (11pm to 7am) of 40 dBA.

#### Summary of Recommendations: (provide in non-technical language)

The proponent has based the revised assessment on the location of twelve turbines. Should the configuration change, the proponent would be required to reassess noise impacts at the receptor locations.

The proponent has used a surrogate baseline noise level to assess cumulative impacts. It is recommended that the proponent undertakes a baseline noise survey to confirm baseline noise levels at representative receptor locations.

Date: January 31, 2023

To: Candace Quinn, Environmental Assessment Officer

From: Nova Scotia Office of L'nu Affairs – Consultation Division Reviewed by Beata

Dera, Director of Consultation, Office of L'nu Affairs.

Subject: Natural Forces Westchester Wind Project, Cumberland County, Nova Scotia

#### Scope of review:

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.

#### **Technical Comments:**

#### 1.4.2 Physical Components of the Project

The project footprint accounts for approximately 74 hectares (ha) during construction phase and 47 ha for the operational life of the project. Impacts include ground disturbance for road upgrades, new roads, a transmission line, and construction of turbine foundations.

#### Summary of Recommendations:

#### 3.1.1.5 Culturally Significant Vegetation

A non-exhaustive list of culturally significant vegetation was prepared by a biologist from Maqamigew Anqotumeg. OLA recommends the proponent share this list with the Mi'kmaq of Nova Scotia through an ongoing engagement process throughout the development stages of the project.

#### 3.1.2.2. Terrestrial Wildlife Field Assessment

Page 42 lists the species observed during 2021 and 2022 field studies and includes snowshoe hare. Potential impacts to snowshoe hare and their habitat may potentially adversely impact Aboriginal and/or Treaty rights. OLA is aware that the harvest of showshoe hare is a traditional harvesting activity for the Mi'kmaq of Nova Scotia. OLA recommends that engagement with the Mi'kmaq, through a Mi'kmaq Communications Plan, be required should the EA be approved.

#### Appendix C Wildlife Study

According to Appendix C, a deer wintering area is located approximately 1.5 km east of the Proposed Development Area (PDA). The report states that deer wintering within

the PDA is considered to be unlikely because lands have been cleared, providing limited protection from wind. Although the potential for deer wintering in the PDA is low, potential impacts to deer and their habitat may potentially adversely impact Aboriginal and/or Treaty rights. OLA is aware that harvesting of deer is a traditional activity for the Mi'kmaq of Nova Scotia. It is recommended that the proponent engages in discussions with the Mi'kmaq of Nova Scotia to address mitigation measures for potential impacts on possible traditional and current use activities within the project area.

#### Appendix E Watercourse & Fish Habitat Survey

According to Appendix E, Brook trout, American eel and Atlantic salmon were observed within 20 km from the centre of the Potential Development Area (PDA). American eel and Atlantic salmon are species of interest to the Mi'kmaq of Nova Scotia. Potential impacts to these species and their habitat may potentially adversely impact Aboriginal and/or Treaty rights. It is recommended that the proponent works with the Mi'kmaq of Nova Scotia to develop mitigation measures for potential impacts on possible fishing activities within the project area.

#### Appendix J Moose Study

According to Appendix J Moose Study, the Project is located within an area that is designated as core habitat within a concentration area for Mainland Moose. During the 2021 and 2022 field surveys no observations or signs of Mainland Moose (i.e., antler sheds, rubbings/hookings, tracks, browse, sightings and/or pellets) were observed during the targeted survey or incidentally during any of the other biophysical field surveys that were carried out in the study area. Although not encountered during any of the documented field surveys in 2021, and 2022, Mainland Moose have been historically identified in the vicinity of the Project.

Mainland Moose is a species of interest to the Mi'kmag of Nova Scotia. Potential impacts to Mainland Moose and their core habitat may potentially adversely impact Aboriginal and/or Treaty rights. Page 16 of Appendix J proposes a mitigation measure of participating in or funding Mi'kmaq-led Mainland Moose recovery programs. Page 18 of Appendix J states the proponent has engaged with the Confederacy of Mainland Mi'kmag (CMM) to understand current and proposed Mainland Moose recovery programs. The Proponent has indicated commitment to contributing to these programs in order to assist with the recovery of the Mainland Moose population. OLA recommends continued engagement with CMM regarding mitigating potential adverse impacts to Mainland Moose as well as Mainland Moose recovery with a two-eyed seeing approach. Given that the proposed project may potentially adversely impact Aboriginal and Treaty Rights, OLA recommends that engagement with the Mi'kmaq, through a Mi'kmaq Communications Plan, be required should the EA be approved. It is also recommended that the proponent works with the Mi'kmag of Nova Scotia and demonstrate continued efforts to engage the Mi'kmag to address mitigation measures for potential impacts on possible traditional and current use activities within the project area.

Appendix M 2022 Archaeological Resource Impact Assessment

As determined by the Archaeological Resource Impact Assessment (ARIA), through methods of reconnaissance and exploratory subsurface testing no areas of high

archaeological potential were found to be located within the proposed infrastructure. The consultant for the ARIA engaged Kwilmu'kw Mawklusuaqn's Archaeological Research Division (KMKNO-ARD) to request traditional and historic Mi'kmaq-use information for the study area. This engagement informed the results of the ARIA. It is recommended that engagement with KMKNO-ARD on archaeology continue throughout project development.

#### **Guidance for Reviewers – Environmental Assessments**

Environmental Assessment Branch, Environment and Climate Change

Date: January 31, 2023

To: Candace Quinn, Environmental Assessment Officer

From: Laura Watkinson, Linear Development, Regulatory Review Biologist, Fish and Fish

Habitat Protection Program; Sign-off by Leanda Delaney, Senior Biologist

Subject: Westchester Wind Project, Cumberland County, Nova Scotia

#### Scope of review:

The Fish and Fish Habitat Protection Program of Fisheries and Oceans Canada (DFO-FFHPP) is responsible for administrating the fish and fish habitat protection provisions of the *Fisheries Act* (FA), the *Species at Risk Act* (SARA) for aquatic species at risk, and the *Aquatic Invasive Species Regulations*.

DFO-FFHPP review focused on the impacts of the works outlined in the Westchester Wind Project Addendum to the Environmental Assessment Registration Document, to potentially result in:

- the death of fish by means other than fishing and the harmful alteration, disruption
  or destruction of fish habitat, which are prohibited under subsections 34.4(1) and
  35(1) of the Fisheries Act;
- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the Species at Risk Act; and
- The introduction of aquatic species into regions or bodies of water frequented by fish where they are not indigenous, which is prohibited under section 10 of the Aquatic Invasive Species Regulations.

#### **Technical Comments:**

	Risk Assessment	
Identify Gap/Risk	Can it be addressed in another permit/approval or with a T&C?	Define/provide detail
Fish Presence/Absence Determination:	The identified gap can be addressed during the Nova Scotia Environment and	Additional methods beyond visual observation and desktop review should be administered
Presence and/ or absence of fish conducted by visual observations and desktop review (page 66 of the addendum, in section 3.1.4.1.2).	Climate Change (NSECC) watercourse and/or wetland alteration approval process(es) and DFO-FFHPP regulatory review process.	to correctly identify all fish bearing waterbodies to be potentially impacted by the project. Additional methodology can include electrofishing, netting, and/or trapping in varying combinations.



Supplementary measures such as netting, electrofishing and/or trapping were not administered when conducting the fish and fish habitat assessment.		A Scientific License from DFO will be required prior to administering the assessment.
Watercourse Crossing Designs:  Specifics related to proposed watercourse crossings are not yet determined. The risk of cumulative impacts from multiple crossings within the same watershed will require additional consideration once details are finalized.	The identified gap can be addressed during the NSECC watercourse and/or wetland alteration approval process(es) and DFO-FFHPP regulatory review process. All new watercourse crossings will require DFO review, to address local and cumulative impacts to fish and fish habitat, including potential impacts to aquatic species at risk.	Additional information will be required as part of the DFO-FFHPP regulatory review process, including, but not limited to: final number of proposed watercourse crossings (new and upgraded), location and designs drawings for specific watercourse crossings, rationale for crossing types, site specific hydrological and fish passage assessments, site specific impacts to fish and fish habitat including delineated footprint below the ordinary high water mark, cumulative impacts, site specific impacts to aquatic species at risk, and site specific impacts to riparian and contiguous wetland habitat.

#### Summary of Recommendations: (provide in non-technical language)

DFO-FFHPP recommends the proponent consider:

- Conducting additional field assessments beyond visual observations and desktop review to identify all fish bearing waterbodies to be potentially impacted by the project;
- Submitting detailed information on watercourse crossing designs, and identifying
  potential impacts on fish and fish habitat (local and cumulative) in each watershed
  from each watercourse crossing, including potential impacts to aquatic species at
  risk; and
- Open bottom structures, such as clear span bridges and open bottom arch culverts for fish bearing watercourse crossings, where possible.

This information can be provided through the NSECC watercourse and/or wetland alteration approval process(es) to allow DFO to conduct a regulatory review of potential impacts to fish and fish habitat and to determine if a *Fisheries Act* and/or a *Species at Risk* permit is required.





#### **Environment and Climate Change**

Date: January 30, 2023

To: Candace Quinn, Environmental Assessment Officer

From: J. Cormier, Inspector Specialist, Inspection Compliance and Enforcement

Subject: Westchester Wind Project, Cumberland County, Nova Scotia

#### Scope of review:

This review focuses on the following mandate:

Potential impacts to ground and surface water, and related approval requirements.

#### **Technical Comments:**

Watercourse crossings and wetland alteration activities are subject to notification or approval requirements under the Activities Designation Regulations (Division 1, Water) and in conjunction with applicable standards, etc.

Several wetlands subject to possible alteration were noted as potentially being of special significance. This should be confirmed prior to related applications being submitted related to these specific wetlands.

Release of Substance: Environment Act.

Activities with possible risks of releases of substances that may result in negative impacts to the environment, particularly watercourses, include:

- sediment release from excavation/exposed soil activity.
- releases of automotive fluids from heavy equipment, etc, and fuel storage tanks on site could have significant adverse effects on watercourses and ground water. Proper handling of such fluids is imperative. Preventative and protective measures would be fully expected to be implemented, as well as prepared contingency responses and associated equipment must be readily available on site for response.

Spills must be cleaned up accordingly and must be reported in accordance with the Environmental Emergency Regulations, etc.

# Avoidance of watercourse and wetland alterations is preferred. If such alterations must occur, minimal impact is expected. (The guide document does not include specific details about watercourse alterations, however these details are expected with applicable applications.) Add contingency requirements related to release of contaminants.

Summary of Recommendations: (provide in non-technical language)



1701 Hollis St. PO Box 698 Halifax, NS B3J 2T9

Date: January 31, 2023

To: Candace Quinn, Environmental Assessment Officer

From: Department of Natural Resources and Renewables

Subject: Westchester Wind Project, Cumberland County, Nova Scotia

#### Scope of review:

This review focuses on the following mandates: <u>Biodiversity, species at risk status and recovery, wildlife species and habitat management and conservation, including Old Growth Forest, authority and approvals from Land Services, Clean Energy</u>

#### **Technical Comments:**

#### Regional Services, Wildlife divisions:

Throughout the document it is not clear which of the 12 WTG are new locations added as part of the addendum. This is relevant to the review of surveys in the appendices and should have been labeled differently in figures. It is unclear if new locations were selected pre- or post- survey program dates.

1.4.2.5 Lighting, page 12. The lighting plan should also be shared with NRR.

Table 6: Local Assessment Areas for Biophysical Valued Environmental Components, Page 24 and Appendix F, Table 1, page 7. Under the Local Area of Assessment (LAA) for turtle and turtle habitat, NRR recommends a survey distance of 200m upstream and downstream of the proposed area of work (such as a watercourse crossing).

- 3.1.2.3 Mainland Moose Field Assessment, page 42. The proponent has made incorrect statements or interpretations of Core Habitat; however, it does not appear to have affected surveys or proposed mitigation approaches.
- 3.1.5.2 Field Assessments and Radar and Acoustic Monitoring, page 86. The data and results presented in this section are inconsistent. Only the 2022 radar and acoustic monitoring data and results are discussed in this section, while all other programs provide the results and analysis for both the 2021 and 2022 survey programs. For the radar and acoustic monitoring, it is important that data sets for both years of pre-construction data and presented, compared, or analyzed together as needed to present the full picture of species migration across the PDA and inform both the mitigations and adaptive management plan.

Table 38: Potential Interactions and Proposed Mitigation for Terrestrial Habitats and Vegetation, page 143. Point 11 is confusing. The 200m protected zone is the area around the occurrence that is maintained for minimal disturbance according to criteria set out in the At-Risk-Lichens Special Management Practices.

Table 38: Potential Interactions and Proposed Mitigation for Terrestrial Habitats and Vegetation, page 144. Under Point 18, it is unclear if the application of the 50m buffer for a watercourse for a SAR encounter will be applied to the entire length of the watercourse. This

is especially confusing when read in the context of point 8 in Table 39 which suggests limited construction activities within 30m of a watercourse.

Table 39: Potential Interactions And Proposed Mitigation For Terrestrial Wildlife, page 146. Point 9 where it states "if a SAR is encountered during activities, work around the SAR shall cease until a biologist is dispatched to assess the situation and appropriate mitigation is applied" it should include "following consultation with NRR and other regulatory agencies as required". Mitigations and approaches may vary depending on species and type of encounter. This is applicable for all instances where this statement is found in the document and associated appendices.

Table 44: Potential Interactions and Proposed Mitigation for Birds and Bird Habitat, page 157. Point 6 and Appendix O, Section 2.8.3.1 Birds/Bat and Bird/Bat Habitat, page 16. The breeding bird season should be **April 5th – August 28**<sup>th</sup> from an interpretation of federal guidance on general nesting periods of migratory birds.

5.1.2 Ecologically Significant Areas, page 179. Incorrect statement concerning Mainland Moose Core Habitat. It has been defined and identified according to the Endangered Species Act, but has not been designated, which is a regulatory process.

Appendix F, Table 1, page 7. Spatial Boundaries: Study Area and Local Area of Assessment (LAA). The proponent has not provided the justification for selecting distances for field observations and where project-specific interactions are anticpated.

Appendix F, Section 4.2.2 Turtle Survey, page 10. Surveys conducted during the month of July will be too late in the season to properly evaluate for turtle presence, as the temperature at the time of surveys are usually too high (>25°C) or vegetation too dense to spot turtles on stream banks. Temperature and vegetation conditions for surveys has not been provided.

Appendix F, Section 6.1.2 Identification of Potential Environmental Effects, page 16. The registration document did not identify an important environmental effect around the potential to create artifical nesting habitat through road construction and road upgrades, increasing potential negative project interactions with turtles. This should be addressed in mitigations under section 6.1.4.

Appendix G, Figure 2, page 8. Surveys should cover the entirety of the PDA where reasonable. Gaps exist where winter track surveys and nocturnal surveys were not conducted (particularly areas covering T18-T21).

Appendix G, Section 4.0 Methods -Targeted Breeding Nightjar Surveys, page 17. It is unknown from the information presented whether locations used for night survey locations provided suitable habitat to support presence of Common Nighthawk. Given that the protocol used is

initially designed as a repeatable survey route, it is important to address differences in the survey methodology and that surveys are conducted within suitable habitat for the species.

Appendix G, Table 21, page 53. In addition to the Migratory Bird Convention Act, birds, eggs, and their nests are protected through the Wildlife Act (*Nova Scotia*). Therefore, under point 5 of the proposed mitigation measures, NRR should also be consulted with respect to buffers for migratory birds. Under point 7, the stockpiling of soil should be minimal, kept to a slope of less than 70° to reduce potential for Bank Swallow nesting habitat, and monitored regularly during the breeding season.

Appendix H. Radar and acoustic monitoring data indicates that birds are migrating through the rotor sweep area (70m-200m) during the spring and fall migration, with variations in patterns due to period (higher proportion of birds <200m in the fall migration period), time of day, and weather. The author indicated that based upon review of both the 2021 and 2022 data birds are possibly migrating at lower altitudes across the region due to the elevation in the region. There are potential impacts of the project on bird species migrating through the PDA which must be addressed through both monitoring and the development of an adaptive management plan.

Appendix I. Data presented in Section 5.2 Field Results has not been addressed through proposed mitigations. Although breeding on site is considered unlikely, there is a clear pattern for peak migration times in the fall. This should be addressed through either the Wildlife Management Plan or Adaptive Management Plan.

Appendix I, Section 6.1.3 Standard Mitigation for Potential Environmental Effects, page 24. It should be noted that NRR is the primary responsible agency for species at risk bat species in Nova Scotia that occur on non-federal lands. In addition, a post-construction *bat* mortality survey should be developed.

Appendix N. Overall, the adaptive management plan is incomplete and missing key information; the two years of pre-construction baseline surveys and analysis of results should be used to inform both avoidance and mitigation. Engagement with regulators on the development of the adaptive management plan is encouraged.

Appendix N, page 0. Under Section 1 Introduction it states "The Project consists of up to 28 wind turbines capable of producing up to approximately 150 MW of renewable energy...". This is in contrast to previous statements where up to 12 turbines would be constructed to produce approximately 50 MW. The discrepancy creates some uncertainty or confusion about the scope of the project.

Appendix O. The Draft Environmental Management and Protection Plan does not provide specific information on measures to avoid or mitigate all potential SAR which were identified through field surveys or that have the potential to occur within the PDA.

The PDA overlaps with the high predictor areas (orange and red polygons) of the Old Growth Predictor layer as per the Nova Scotia Old Growth Policy, indicating a high potential risk of impacting Old Growth habitat. Proponent is responsible for on the ground scoring for old-growth.

#### Land Services division:

The Proponent will require authority (such as a lease, licence, or easement) from the Department of Natural Resources and Renewables for any activity on Crown land.

#### Clean Energy division:

The proposed project is not part of the current successful Rate Base Procurement portfolio resulting from the 2022 Request for Proposals process; however, is anticipated to participate in subsequent procurement opportunities for new renewable energy.

Wind energy projects such as Westchester would help Nova Scotia transition its electricity system from the use of coal-fired generation that has direct negative impacts, including air pollution and greenhouse gas emissions.

The transition of our electricity system to renewable energy is part of the province's plans and commitments to climate change mitigation.

Wind energy is the lowest cost of energy world-wide and local deployment of wind energy is anticipated to save rate payers of Nova Scotia millions of dollars over the lifetime of their operation while also reducing the emissions and pollution intensity of the electricity system.

Wind energy will help the electricity system avoid output-based price compliance for greenhouse gas emissions in Nova Scotia resulting in less upward pressure on rate payers through fuel.

Transitioning the electricity system to renewable energy is the most cost effective and significant action the province can undertake to reduce its greenhouse gas emissions in the near term.

This project is in partnership with all 13 Mi'kmaq communities in Nova Scotia meeting the Departments mandate on inclusion in the transition of the electricity system. Renewable energy projects such as wind projects will assist the province in achieving its goals in the Electricity Act, NRR mandate letter and business plan. It will also support Environment and Climate Change's Environmental Goals and Climate Change Reduction Act (EGCCRA), and the Climate Change Plan for Clean Growth (CCPCG).

#### Summary of Recommendations: (provide in non-technical language)

#### Regional Services, Wildlife divisions:

Based upon a review of the information in the addendum, the following recommendations for conditions of approval are provided:

- Obtain all necessary permits as required under legislation related to wildlife and species at risk in order to undertake the project.
- Provide digital way points and/or shapefiles for all Species at Risk and Species
  of Conservation Concern to NRR (those species listed and/or assessed as at
  risk under the Species at Risk Act, Endangered Species Act, COSEWIC, as well
  as all S1, S2 and S3 species). Data should adhere to the format prescribed in
  the NRR Template for Species Submissions for EAs and is to be provided within
  two (2) months of collection.
- Develop a Wildlife Management Plan (WMP) in consultation with NRR and implement following approval which shall include:
  - Communication protocol with regulatory agencies;
  - o General wildlife concerns (e.g., human-wildlife conflict avoidance);
  - Noise, dust and lighting mitigations;
  - Measures to protect and mitigate against adverse effects to migratory birds during construction and operation. This may include avoidance of certain activities (such as vegetation clearing) during the regional nesting period for most birds, buffer zones around discovered nests, limiting activities during the breeding season around active nests, and other best management practices.
  - Mitigation measures to avoid and/or protect SAR/SoCC and associated habitats discovered through survey work or have the potential to be found on site;
  - Details on monitoring and inspections to assess compliance with the WMP.
- Revegetate cleared areas using native vegetation or seed sources following consultation with NRR.
- Develop a plan to prevent the spread of invasives both on and off site.
   Implementation of the plan can only occur following approval from NRR.
- Develop a monitoring program to assess mortality for birds and bats in consultation with NRR and ECCC and implemented for a minimum of two (2) years post-construction during the operation stage of the project. Guidance on monitoring requirements will be provided by NRR. Reporting of the results of the monitoring program shall be on an annual basis to appropriate regulatory agencies. Pending review of results of the monitoring program, additional monitoring or mitigation measures may be required.
- Engage with NRR and ECCC to develop an adaptive management plan to inform decision-making related to adverse effects of the project on migratory bird and bat species. The plan shall be implemented following NRR approval.

- Additional surveys or mitigations may be required following a review of the effectiveness of the plan.
- As the proposed work is within identified Mainland Moose Core Habitat, conduct surveys for Mainland Moose for a minimum of two (2) years during the operation phase of the project, in a buffered zone of influence extending up to two (2) kms from the project footprint, in order to assess potential effects of disturbance.
- Evaluate the presence of old growth forest within the PDA and provide mitigation as required per the Old Growth Forest Policy.

#### **Land Services division:**

No further comments.

#### **Clean Energy division:**

The EA process does not currently allow for the comparison and reflection on the climate change or environmental related benefits of transitioning the electricity system from fossil fuels to renewable energy. The long-term use of coal-fired generation for our electricity system has had significant cumulative negative impacts to the environment, climate, and human and animal health as a result of air pollution and other related pollutants from coal-fired generation. New renewable energy projects, such as wind energy, must be considered in comparison to the status quo and the benefits that result from the transition of the electricity sector to renewable energy. There are substantial benefits to the health and welfare of the ecosystem in Nova Scotia that is a result of switching coal-fired generation for new renewable energy resources.

It is recommended this project proceed for approvals with the appropriate mitigation measures captured in terms and conditions to ensure sustainable development of wind energy in Nova Scotia.

From: Zwicker, Stephen (ECCC)
To: Quinn, Candace M

Cc: Hingston, Michael (il, lui | he, him) (ECCC); Breau, Monique (elle, la | she, her) (ECCC)

Subject: RE: Westchester Wind Project - Additional Information Addendum EA Review

**Date:** February 1, 2023 2:53:53 PM

Attachments: <u>image002.png</u>

CWS Atlantic Guidance Update for Wind Energy and Migratory Birds - April 2022.pdf
CWS Atlantic Guidance Update for Wind Energy and Migratory Birds - April 2022 FR.pdf

#### \*\* 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

#### Hi Candace,

Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS) has reviewed the Natural Forces Limited Partnership's Addendum based on Nova Scotia's Department of Environment and Climate Change (NSECC)'s Minister Request for Additional Information for the proposed Westchester Wind Project, located on the Cobequid Mountain, Cumberland Co, NS. ECCC-CWS' previous review comments provided for this project on March 25, 2022 remain applicable and we also provide the following comments on the December 2022 Addendum:

#### **Migratory Birds**

- The proponent conducted the recommended four seasons of surveys (e.g. timing, number of surveys, and site selection), and 2 years of radar + acoustic studies were completed according to ECCC-CWS recommendations (ECCC, 2007 and 2022). The radar and acoustic confirmed nocturnal migration and movements of migratory birds and bats, including bird and bat species at risk, which were not observed during diurnal surveys, validating the need for these nocturnal studies during migratory periods.
- Addendum Part 1 (section 1.4.2.4 Wind Turbine Generators): It is stated that: "The operators will have the ability to remotely shut off the turbines should they observe conditions that could pose a risk the turbines' proper functioning or risk to people or wildlife...". ECCC-CWS recommend that the Proponent clarify plans to monitor meteorological conditions, including favorable tail wind conditions during peak bird and bat migration, and inclement weather conditions (e.g. fog), which may increase risks to migratory birds, and further describe conditions for implementing preventative temporary remote shutdown(s).
- Addendum Part 1 (section 1.4.5 Planning, Site Preparation and Construction, Page 15): It is stated that, "...If clearing is required during the breeding bird season, a qualified biologist will be onsite prior to starting the activities to conduct monitoring to identify possible breeding birds in the area and their active nests. These monitoring efforts will follow Environment and Climate Change Canada's (ECCC) specific considerations related to determining the presence of nests. A biologist will observe the bird species in the area and determine if there is presence of suitable nesting habitat within the proposed clearing area. As will observe bird behaviour including, but not limited to, territorial males and individuals carrying food to determine the potential for active nest in the area".

As indicated in previous advice, ECCC-CWS recommends restricting high disturbance activities such as vegetation clearing activities to <u>outside</u> of the regional nesting period for migratory birds to avoid impacts and ensure compliance with the <u>Migratory Birds Convention Act</u> (MBCA) and its associated regulations. ECCC-CWS does not recommend active nest searches in complex habitat (trees and shrubs) as they are unlikely to be successful in avoiding incidental take. Ground nesters, such as the threatened Common Nighthawk found in the local assessment area, are very cryptic and difficult to locate.

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.

• ECCC notes in Addendum Part 7 (Section 3.2.6 Birds and Bird Habitat), it is stated that: "The predicted mortality rate of birds due to collision and/or habitat loss cannot be accurately predicted prior the operation of the Project as there is little correlation between pre-construction activity levels and operational mortality, however, it is anticipated that the mortality rate of birds from collision or habitat loss during Project operation, if at all, will be low ... with the proposed mitigation, the residual interactions of the Project with nocturnal migrating birds are not anticipated to be substantive...".

In section 4.0 Summary (Appendix H), it is stated: "when examining the nights with the largest numbers of targets (i.e., when most of the migration occurred), most of the targets tend to be at approximately the top of the RSA (i.e., 200 m). Based on experience completing similar studies across the Atlantic region, often during peak nights of migration, the density of targets is generally at a higher altitude, approximately 400 m".

In the Section 4.2 Assessment of Risk (Appendix H – Radar and Acoustic Monitoring Report), it is stated that, "...it appears from the data that large numbers of birds are not using the Project area as a stopover site. However, because during the peak nights of migration the relative density of migration was highest near the top end of the RSA, there is a potential for a proportion of migrants to be at risk of collision during migration".

ECCC-CWS notes that the proponent's conclusion that interactions of nocturnal migrating birds with the project will not be substantial is based only on their professional experience. ECCC-CWS recommends that any references to studies, and/or results from monitoring other similar projects, be further discussed in correlation with the proposed projects geographical features and proposed turbine heights.

ECCC-CWS recommends that the Proponent consider monitoring nocturnal migratory birds and bat migration at a comparable site to help determine the relative volume of birds and

importance of the Westchester Wind Project area for migration.

ECCC notes in Addendum Part 7 (section 3.2.9 Cumulative Effects) that there are a number of existing wind energy projects and other infrastructure in the vicinity of the project (e.g., Higgins Mountain Wind (Phase 1), a major transmission line corridor, telecommunication towers and associated infrastructure, including overhead power lines, within the local assessment area. Comparison of monitoring results from nearby existing tall infrastructure similar to the proposed turbine heights during peak migration periods could also be helpful in assessing potential effects of the proposed project on migratory birds and bats.

• ECCC notes in Appendix G (Birds and Bird Habitat, Section 6.1.2), it is stated that: "without mitigation, the Project has the potential to cause negative impact to birds and their habitat".

ECCC notes that the volume of birds found within the rotor swept area (RSA) warrants the need for a plan to mitigate potential impacts during optimal migration conditions.

It is understood that proposed mitigation measures (e.g. blade feathering, temporary shutdowns, etc.) will only be implemented after an impact has been observed and that proposed mitigation will likely not avoid/minimize potential impacts (e.g. incidental take) on migratory birds during peak periods. While ECCC recognizes and supports the proponent's plans to prepare a post-construction monitoring and adaptive management plan, these plans are not mitigation measures to avoid/minimize effects on migratory birds *before* they occur.

Based on the level of concern (Category 4)(ECCC(a), 2007, and 2022), and the uncertainties identified, ECCC recommends that the proponent identify additional mitigations measures (e.g. adjusting turbine heights, implementing industry standards and operational procedures, planning temporary shut-off during peak migration periods) to avoid impacts on migratory birds and bats.

#### Species at Risk – Bats

- Addendum Part 5 (Section, 3.1.6 Bats and Bat Habitat), ECCC notes that acoustic monitoring (2021 and 2022) detected all three bat species at risk and three species of conservation concern using the proposed project area. Note: All three migratory bat SoCC (Hoary Bat, eastern red and Silver-haired Bat) are currently undergoing assessment by COSEWIC. ECCC recommends that monitoring, mitigation measures and adaptive management plans consider species of conservation concern as though they are species at risk.
- Section 3.2.7 Potential Interactions and Mitigation, the proponent states: "A comprehensive

AMP (Appendix N) will be developed and implemented in consultation with NSDNRR and CWS, including a follow-up bat mortality survey to be conducted after the Project commissioning, and appropriate actions to be taken should there by significant negative impact to bats".

It is not clear what is meant by "significant" in this context. ECCC is of the opinion that any additive mortality of the SARA listed bats in WNS-affected areas, including mortality at wind turbines, has the potential to be biologically-important. Even mortality of a small number of remaining individuals, particularly breeding adults and disturbance to maternity roosts, has the ability to negatively impact the survival of local populations, their recovery, and potentially, the development of resistance to the fungus that causes White-nose Syndrome (WNS).

• ECCC notes that the Proponent's discussion of Significance of Residual Effects, states: "...due to the low number of bat passes recorded at the Project site, limited predicted impact to the habitat, the implementation of planned mitigation and careful development of contingency and emergency response plans, it is anticipated that effects related to the Project will not be substantive".

ECCC notes that mitigations described in Part 7 of the Addendum - Table 45 may be insufficient to avoid impacts on bats before they occur.

ECCC-CWS recommends the proponent continue acoustic monitoring to assess presence, establish numbers, habitat use, confirm predictions, and inform the development of additional mitigation measures and adaptive management plans.

- The potential presence of bats maternity roosting habitat (residences) in human-made structure (e.g. existing adjacent buildings, abandoned mines) in vicinity of the proposed project should be further investigated if there is any evidence of roosting bats in natural or human-made structures (e.g. Phase 2 and 3 of the ONMRF), and mitigation measures identified to protect bat residences. For example, buildings can be surveyed for signs of bats (e.g. guano) followed by emergence surveys during the breeding season to confirm presence. An excerpt from the draft bat residence description for Little Brown Myotis is available (upon request) for consideration in identifying bat maternity roosting habitat.
- ECCC-CWS recommends that the proponent consult provincial SAR biologists at the Nova Scotia Department of Natural Resources and Renewables for technical expertise and advice on bat SAR under their responsibility and jurisdiction (contact: Donna Hurlburt at: <a href="mailto:Donna.Hurlburt@novascotia.ca">Donna.Hurlburt@novascotia.ca</a> and Pam Mills at: <a href="mailto:pamela.mills@novascotia.ca">pamela.mills@novascotia.ca</a>).

ECCC-CWS notes the following additional technical comments for consideration:

The Ontario Ministry of Natural Resources and Forestry (OMNRF, 2017) Guidance - Phase
 1 (i.e. desktop survey) - was referenced for the bat maternity roost assessment;
 however, a different diameter to breast height (DBH) threshold was used for identifying
 maternity roost habitat than the 10 cm recommended in the OMNRF. The >25cm DBH if

for the placement of acoustic monitors and are not a "snag" ranking for determining bat maternity roosts. There were no field surveys to confirm the results of the desktop exercise;

- o If there are areas that might impact >10ha of treed habitat, sub-sampling the landscape with the Ecological Land Classification (ELC)-based analyses, snag density plots, and acoustic monitoring at representative sites would assist in evaluating roosting habitat (and impacts to it);
- o In analyzing the acoustic survey results, Eastern red bat (LABO) and Silver-haired bat (LANO) calls should be separated (if possible);
- o Displaying bat passes/night for each species/species group at each detector location would also be helpful in the analysis of results.

#### **Wetlands**

The original 2021 EA Registration Document indicated there was no government funding for this project. As a number of federal funding initiatives have been introduced since that time, It should be confirmed if that remains the case as the *Federal Policy on Wetland Conservation in Canada* (FPWC) may apply. As the federal department responsible for promoting the FPWC, ECCC-CWS request the opportunity to review a draft WCP prior to finalization to ensure the goals of the FPWC will be met.

#### **Additional Comments**

- The proponent should retain raw data (e.g., information on individual tracks) until appropriate data standards have been developed. Proponents are encouraged to share and store data with:
  - The Atlantic Canada Conservation Data Center (<a href="http://accdc.com/en/contribute.html">http://accdc.com/en/contribute.html</a>), and,
  - The Canadian Wind Energy Association (CanWEA) database (<a href="https://canwea.ca/">https://canwea.ca/</a>) (Birds Canada 2022).
- Draft Generic EA Mitigations Wind Wildlife (Attachment): It is noted that the proponent is instructed to: "Contact NRR to discuss required actions should nesting birds or their young, or any species-at-risk, be encountered on site during construction".
  - ECCC-CWS is responsible for the management and conservation of migratory birds, and protection of SARA listed species at risk and their habitats. The "Draft Generic EA Mitigations Wind Wildlife" should be updated to clarify that ECCC-CWS should be contacted for advice related to migratory birds and migratory bird species at risk, and compliance with MBCA and SARA.
- A Pileated Woodpecker was detected during summer 2022 breeding bird survey. ECCC-CWS notes that the nests of Pileated Woodpecker listed on Schedule 1 of the amended Migratory Bird Regulations (2022) continue to have year-round nest protection, unless they have been shown

to be abandoned. For more information on the amended nest protections, frequently asked questions on how these protections apply to migratory birds, including Pileated Woodpecker, and responsibilities for reporting abandoned nests, please visit Fact Sheet Nest Protection Under the Migratory Birds Regulations, 2022 and Frequently Asked Question, Migratory Birds Regulations, 2022. Information on Pileated Woodpecker nest cavities can be found on ECCC's website: Pileated Woodpecker Cavity identification Guide, Damage or Danger Permits for Nest Destruction: Pileated Woodpecker nesting cavities - Canada.ca and Damage to the Use of the Land: Pileated Woodpecker nesting cavities - Canada.ca

• If the project proceeds, the proponent should be advised that provincial conditions of approval do not supersede their responsibility to ensure that activities comply with the MBCA and associated regulations. For <u>all</u> activities and during all Project phases, the Proponent must take measures to avoid the incidental take of migratory birds, nests, and eggs.

#### **Attachments**:

• Environment and Climate Change Canada's Canadian Wildlife Service (Atlantic Region) – Wind Energy & Birds Environmental Assessment Guidance Update (April, 2022) (not available online). Note: Recommendations in the ECCC 2022 guidance update were previously discussed at early pre-construction meeting, and correspondence. This document does not replace the Environment Canada 2007(a) Wind Turbines and Birds: A Guidance Document for Environmental Assessment and 2007(b) Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds, which are referenced in the 2022 document (available online). The 2022 update elaborates on recommendations provided ECCC 2007(a)(b), primarily related to radar and acoustic studies for proposed projects using larger turbines (>150m), and outlines expectations for pre and post-construction surveys and monitoring.

#### Stephen Zwicker

Environmental Assessment Coordinator, Environmental Protection Operations Directorate Environment and Climate Change Canada / Government of Canada <a href="mailto:stephen.zwicker@ec.gc.ca">stephen.zwicker@ec.gc.ca</a> / Tel: Cell: 902-402-7145

Coordonnateur, Évaluations environnementales, Direction des activités de protection de l'environnement

Environnement et Changement climatique Canada / Gouvernement du Canada stephen.zwicker@ec.gc.ca / Tel: Cell: 902-402-7145

# Environment and Climate Change Canada's Canadian Wildlife Service (Atlantic Region) - Wind Energy & Birds Environmental Assessment Guidance Update

#### Background

Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS) is charged with the administration of the *Migratory Birds Convention Act* (MBCA) and *Species at Risk Act* (SARA), responsible for the management and conservation of migratory birds and protection of SARA listed species at risk and their habitats; ECCC-CWS Atlantic (ATL) provides expert advice for these species for wind energy impact assessments, upon request. ECCC-CWS published two guidance documents in 2007 for assessing the risk of wind energy developments on migratory birds:

- Wind Turbines and Birds: A Guidance Document for Environmental Assessment" (Environment Canada 2007a)
- Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds" (Environment Canada 2007b)

Recent advancements in technology for wind energy production include taller turbines with increased energy generating capacity. As a result, in 2018, ECCC-CWS-ATL provided an advice update related to radar and acoustic monitoring recommended for monitoring particular factors of concern (e.g. migration corridors, passage rate and flight altitudes of nocturnal migrants in relation to the height of proposed turbines – larger scale) (s.8.2 CWS 2007a and CWS2007b protocols).

ECCC-CWS-ATL has prepared this guidance update to replace the 2018 advice; this guidance update provides minimum standards and best approaches for pre- and post-construction monitoring related to wind energy developments in Atlantic Canada. It is incumbent on the proponent to identify the best approach, based on the circumstances, to comply with the *Migratory Birds Convention Act* and *Species at Risk Act*.

#### **Determining Site Sensitivity**

ECCC-CWS-ATL recommends that wind energy sites proposing building turbines > 150m (thus placing turbine height places the rotor sweep within songbird nocturnal flight corridors (i.e., 150 – 600 m, Horton *et al.* 2016)) in total height be considered 'Very High' site sensitivity (i.e., Category 4, Environment Canada 2007a).

#### Minimum Standard

#### **Pre-Construction Monitoring**

There is little available data and associated studies on the latest larger scale turbine technologies and risk to migratory birds. Therefore, proponents should assess the potential risk of Category 4 level sites to understand and characterize nocturnal avian flight paths around proposed sites. ECCC-CWS-ATL recommends using radar and acoustic monitoring during the spring and fall migrations, in addition to standard avian surveys (Environment Canada 2007a).

Although much of the bird migration is above turbine heights and rotor sweep areas, there are accounts of both songbird migration, and localized migratory bird population seasonal movements, occurring within the turbine altitudinal zone (Richardson 1972, Horton et al. 2016). Therefore, monitoring should also characterize potential

localized lower-level movements of birds. For example, Bank Swallows move between coastal bank colonies and inland roost sites; shorebirds move overland from foraging to roosting sites during pre-migration recruitment flights; sea ducks are low altitude nocturnal migrants.

The use of acoustic autonomous recording units (ARUs) complements radar data and can support conclusions in the final analysis. ARUs have a maximum detection distance of approximately 200-250m above ground level, similar to the height of proposed wind turbines and can assist in evaluating species composition of nocturnal migrants, especially important in understanding the potential risk to species at risk.

#### Study Design

ECCC-CWS-ATL recommends, at minimum, monitoring early in the project-planning phase (pre-construction) to ensure that the proponent completes a minimum of 2 years (consecutive) of monitoring. The 2-year minimum standard supports analyses of bird flight height by capturing the variance in weather conditions present. In addition, ECCC-CWS-ATL recommends pre-construction monitoring to quantify the risk at a proposed site **before** approval. This also provides baseline information to assess post-construction impacts and mortality on migratory bird populations. Data should be collected under various types of weather conditions.

Spring migration recommended monitoring window is **March 15 - June 7**, and fall migration is **July 15 - November 30**. These extended monitoring windows allow the proponent to assess landbirds, waterfowl/sea duck and shorebird migration movements, especially important in coastal areas or along known migration routes (e.g., Bay of Fundy, Tantramar Marsh, Strait of Canso, and Cape Sable Region).

The breeding season window in Atlantic Canada varies from region to region (i.e. nesting zones) which have corresponding nesting calendars showing variation in nesting intensity by habitat type. Information regarding regional nesting periods can be found at <a href="ECCC's General Nesting Periods">ECCC's General Nesting Periods — Avoiding Harm To Migratory Birds</a>. Each site should be visited at least twice during this time to establish which species are breeding in the area and to determine if there are any migratory bird species at risk and/or species that have aerial mating displays.

If provincial regulatory processes do not require pre-construction monitoring, the proponent should initiate monitoring as soon as possible (for a minimum 2-year period). Although not ideal, monitoring could start during the construction year to assess impacts on migratory bird populations and determine the need for additional mitigation and/or inform future guidance.

#### Data Analysis

Data analysis guidance is available in the 2007 national guidance (Environment Canada 2007a, Environment Canada 2007b). ECCC-CWS-ATL recommends consolidating site-specific avian baseline and habitat assessment with radar and acoustic monitoring data into one report. In addition, this report should include and detail an overall assessment of the risk to migratory birds.

The report should include, at minimum, the following:

- List of potential breeding birds (following breeding bird atlas protocols)
- Volume estimates of birds (i.e. targets) at a fine scale of altitudinal resolution on a nightly basis;
- o Altitudinal information;
- Time period monitored (note: monitoring should take place at the same time every day);
- Weather data;
- o Tidal and lunar cycles (note: shorebird movements increase during bright nights);
- Summary of overall bird activity, including how bird activity:
  - o changed through the night and the season.
  - o changed across the study area.

#### Post-Construction Monitoring

ECCC-CWS-ATL recommends that post-construction mortality surveys (Environment Canada 2007b) and radar and acoustic monitoring <u>be consistent</u> with baseline pre-construction methods. The proponent (for any approved project) should complete a minimum of 2 years (consecutive) of monitoring. ECCC-CWS-ATL may recommend additional monitoring based on reported findings.

The mortality survey data should be paired with radar and acoustic monitoring to provide context for the localized impacts on birds. Additionally, the proponent should compare the pre-construction and post-construction results to assess and quantify any changes in migratory bird species assemblage, density, and behaviours.

Permits are required to handle or collect any dead birds or bats found during post-construction monitoring activities (e.g. carcass searches or used as part of observer efficiency or scavenging trials) (ECCC, s.10.4 2007). Under the Migratory Bird Regulations, a scientific permit is required for the collection of a migratory bird (dead or alive), feathers, or part of a migratory bird, as defined in the MBCA (contact: <a href="Permi.Atl@ec.gc.ca">Permi.Atl@ec.gc.ca</a>). Proponents should also contact the appropriate provincial territorial wildlife department for information related to requirement to collect species under provincial jurisdiction (bats and bird species such as raptors not covered by the MBCA). Proponents should review and carefully note the conditions in permits, including annual reporting and mortality incident reporting. Proponents will need to ensure they remain in compliance with all permitting conditions and requirements.

#### Data and Report Submission

Please provide ECC-CWS-ATL with the monitoring reports. Reports must be provided to CWS by December 31 of the same calendar year in which monitoring took place. Submit reports ECCC's environmental assessment window for coordination at: <a href="mailto:FCR\_Tracker@ec.gc.ca">FCR\_Tracker@ec.gc.ca</a>.

ECCC-CWS-ATL recommends that the proponent submit all wind energy monitoring (migratory birds and bats) data to the <u>Wind Energy Bird & Bat Monitoring Database</u> (Birds Canada 2022). The proponent should retain raw data (e.g., information on individual tracks) until appropriate data standards have been developed.

#### Best Approach

ECCC-CWS-ATL considers the best approach to be a regional BACI (Before-After/Control Impact) study design (i.e., paired-site design) or an impact-gradient design for smaller developments. The BACI design is designed to help isolate the potential effect of development from natural variability. Proposed turbine sites should be paired with similar reference sites to provide comparative assessments. This comparative site assessment should compare bird density, flight height variance/altitude levels, activity patterns, timing, consistency of movements, habitat variables between control (reference) and treatment (turbines) sites during the breeding period and during migration. Data should be collected under various types of weather conditions.

Reference sites should be located at minimum 500m from proposed turbine sites. These reference sites should be placed in habitats similar to the paired turbine site. ECCC-CWS-ATL recommends that this approach be factored into the pre-construction and post-construction monitoring designs. All study design recommendations presented above should be used for this approach (e.g., pre-construction monitoring should be completed before site approval, be done for two years, etc.). Additionally, all sampling considerations (e.g., migration timing windows, data collection, reporting) should be consistent with the minimum standard.

#### Bats

Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), and Tri-colored Bat (*Perimyotis subflavus*) are small, insectivorous bats that are listed as Endangered (Species at Risk Act, Schedule 1). ECCC-CWS-ATL recommends that the proponents consider bats in their pre-construction and post-construction monitoring and their data and report submissions. However, the proponent should contact Provincial representatives for additional information on bats and wind energy developments, as they are the jurisdiction responsible for the conservation and protection of bat species.

#### References:

Bence, J. R., A. Stewart-Oaten, and S.C. Schroeter. 1996. Estimating the size of an effect from a Before-After-Control-Impact-Pairs design: the predictive approach applied to a power plant study. In R. J. Schmitt and C. W. Osenberg, editors. Ecological impact assessment: conceptual issues and application in coastal marine habitats. University of California Press, Berkeley, California, USA.

Birds Canada. 2022. Wind Energy Bird & Bat Monitoring Database. Accessed March 16, 2022, at https://www.bsc-eoc.org/naturecounts/wind/main.jsp.

Canadian Wildlife Service. 2018. Wind Turbines and Birds – Updated Guidance for Environmental Assessment and Monitoring Canadian Wildlife Service – Atlantic Region. 2pp.

Environment Canada. 2007a. Wind Turbines and Birds: A Guidance Document for Environmental Assessment. 46pp.

Environment Canada. 2007b. Recommended Protocols for Monitoring Impacts of Wind Turbines in Birds. 33pp.

Hanson, A., I. Goudie, A. Lang, C. Gjerdrum, R. Cotter, and G. Donaldson. 2009. A framework for the scientific assessment of potential project impacts on birds. Canadian Wildlife Service Technical Report Series No. 508. Atlantic Region. 61 pp.

Horton K.G., B.M. Van Doren, P.M. Stepanian, A. Farnsworth A., and J.F. Kelly. 2016. Where in the air? Aerial habitat use of nocturnally migrating birds. Biol. Lett. 12: 20160591. (http://dx.doi.org/10.1098/rsbl.2016.0591

Kunz, T.H., E.B. Arnett, B.M. Cooper, W.P. Erickson, R.P. Larkin, T.J. Mabee, M.L. Morrison, M.D. Strickland, and J.M. Szewczak. 2007. Assessing impacts of wind-energy development on nocturnally active birds and bats: a guidance document. Journal of Wildlife Management 71(8):2449-2486.

Lynn and Auberle. 2009. Guidelines for Assessing the Potential Impacts to Birds and Bats from Wind Energy Development in Northern Arizona and the Southern Colorado Plateau. Northern Arizona University.

Osenberg, C.W., R.J. Schmitt, and S.J. Holbrook. 1994. Detection of environmental impacts: natural variability, effect size, and power analysis. Ecological Applications 4(1): 16-30.

Richardson, W.J. 1972. Autumn migration and weather in Eastern Canada: A radar study. American Birds 26(1): 10-17

ECCC - Canadian Wildlife Service Atlantic Region

### Service canadien de la faune d'Environnement et Changement climatique Canada (région de l'Atlantique) : Mise à jour du document d'orientation pour les évaluations environnementales relatives à l'énergie éolienne et aux oiseaux

#### Contexte

Le Service canadien de la faune d'Environnement et Changement climatique Canada (SCF/ECCC) est chargé de l'administration de la *Loi sur la Convention concernant les oiseaux migrateurs* (LCOM) et de la *Loi sur les espèces en péril* (LEP). Il est responsable de la gestion et de la conservation des oiseaux migrateurs et de la protection des espèces en péril inscrites sur la liste de la LEP et de leurs habitats. Le SCF/ECCC Atlantique (ATL) fournit, sur demande, des avis d'experts sur ces espèces pour les évaluations des répercussions relatives à la production d'énergie éolienne. En 2007, le SCF/ECCC a publié deux documents d'orientation pour l'évaluation du risque associé aux projets de production d'énergie éolienne sur les oiseaux migrateurs :

- Les éoliennes et les oiseaux : Document d'orientation sur les évaluations environnementales (Environnement Canada, 2007a);
- Protocoles recommandés pour la surveillance des impacts des éoliennes sur les oiseaux (Environnement Canada, 2007b).

Les récents progrès technologiques en matière de production d'énergie éolienne comprennent la hausse des turbines et le renforcement de la capacité de production d'énergie. Par conséquent, en 2018, le SCF/ECCC-ATL a fourni une mise à jour des avis sur la surveillance radar et acoustique recommandée pour surveiller certains facteurs préoccupants (p. ex., les couloirs de migration, le taux de passage et les altitudes de vol des oiseaux migrateurs nocturnes par rapport à la hauteur des turbines proposées — à plus grande échelle) (s.8.2, SCF2007a, et protocoles, SCF2007b).

Le SCF/ECCC-ATL a préparé cette mise à jour de l'orientation pour remplacer l'avis de 2018. Cette mise à jour de l'orientation fournit des normes minimales et les meilleures approches pour la surveillance avant et après la construction liée aux projets de production d'énergie éolienne au Canada atlantique. Il incombe au promoteur de choisir la meilleure approche, en fonction de la situation, pour se conformer à la *Loi sur la Convention concernant les oiseaux migrateurs* et à la *Loi sur les espèces en péril*.

#### Détermination de la sensibilité du lieu

Le SCF/ECCC-ATL recommande que les lieux de production d'énergie éolienne où il est proposé de construire des turbines à une hauteur supérieure à 150 m (donc la rotation des pales à cette hauteur de turbine coïncide avec les corridors de vol nocturne des oiseaux chanteurs, c. à d. à 150 à 600 m [Horton et coll., 2016]), comme hauteur totale, soient considérés comme des lieux «très sensibles» (c.-à-d. de catégorie 4, Environnement Canada, 2007a).

#### Norme minimale

#### Surveillance avant la construction

Il existe peu de données et d'études connexes disponibles sur les plus récentes technologies en matière de grandes turbines et les risques pour les oiseaux migrateurs. Par conséquent, les promoteurs doivent évaluer le risque associé aux lieux de catégorie 4 pour comprendre et caractériser les trajectoires de vol nocturne des oiseaux autour des lieux proposés. Le SCF/ECCC-ATL recommande de recourir à la surveillance radar et acoustique pendant les migrations du printemps et de l'automne, en plus des enquêtes aviaires standard (Environnement Canada, 2007a).

Bien qu'une grande partie de la route migratoire des oiseaux passe au-dessus des turbines et de l'espace de rotation des pales, on aurait rapporté à la fois une migration des oiseaux chanteurs et des déplacements saisonniers localisés des populations d'oiseaux migrateurs, lesquels se produisent à la hauteur des turbines (Richardson, 1972; Horton et coll., 2016). Par conséquent, la surveillance devrait également comprendre la caractérisation des déplacements localisés possibles d'oiseaux à une faible hauteur. Par exemple, les Hirondelles de rivage se déplacent entre les colonies d'oiseaux de rivage du littoral et les dortoirs situés à l'intérieur des terres; les oiseaux de rivage se déplacent au-dessus des terres entre les sites de recherche de nourriture et les dortoirs pendant les vols de recrutement prémigratoires; les canards de mer sont des oiseaux migrateurs nocturnes de basse altitude.

Le recours à des unités d'enregistrement acoustique autonomes (UEAA) permet de compléter les données radar et d'étayer les conclusions de l'analyse finale. La distance de détection maximale des UEAA est d'environ 200 à 250 m au-dessus du sol, soit une hauteur semblable à celle des turbines d'éoliennes proposées. Ces UEAA peuvent aider à déterminer la composition des espèces d'oiseaux migrateurs nocturnes, ce qui est particulièrement important pour comprendre le risque pour les espèces en danger.

#### Plan expérimental

Le SCF/ECCC-ATL recommande, au minimum, une surveillance au début de l'étape de planification du projet (avant la construction) afin de s'assurer que le promoteur effectue une surveillance pendant au moins deux années (consécutives). La norme minimale de deux ans étaye les analyses de la hauteur de vol des oiseaux en saisissant la variabilité des conditions météorologiques présentes. En outre, le SCF/ECCC-ATL recommande une surveillance avant la construction pour quantifier le risque à un lieu proposé avant l'approbation. Cela fournit également des données de référence pour évaluer les incidences et la mortalité après la construction dans les populations d'oiseaux migrateurs. Les données devraient être recueillies dans différentes conditions météorologiques.

La période de surveillance recommandée pour la migration printanière est du **15 mars au 7 juin**, et celle de la migration automnale, du **15 juillet au 30 novembre**. Ces fenêtres de surveillance étendues permettent au promoteur d'évaluer les déplacements migratoires des oiseaux terrestres, de la sauvagine/des canards de mer et des oiseaux de rivage, ce qui est particulièrement important dans les zones côtières ou le long des voies de migration connues (p. ex., la baie de Fundy, le marais de Tantramar, le détroit de Canso et la région du cap de Sable).

La période de reproduction au Canada atlantique varie d'une région à l'autre (c.-à-d. les zones de nidification), et les périodes de nidification correspondantes présentent une variation de l'intensité de la nidification par type d'habitat. Pour des renseignements sur les périodes de nidification régionales, veuillez consulter le le site Web d'ECCC intitulé <u>Périodes générales de nidification — Prévention des effets néfastes pour les oiseaux migrateurs</u>. Chaque site devrait être visité au moins deux fois pendant cette période afin d'établir quelles espèces se reproduisent dans la région et de déterminer s'il y a des espèces d'oiseaux migrateurs en péril et/ou des espèces qui font des parades nuptiales aériennes.

Si les processus réglementaires provinciaux n'exigent pas de surveillance avant la construction, le promoteur doit commencer la surveillance dès que possible (pour une période minimale de deux ans). Bien que ce ne soit pas idéal,

la surveillance pourrait commencer pendant l'année de construction afin d'évaluer les impacts sur les populations d'oiseaux migrateurs et de déterminer les besoins en matière de mesures d'atténuation supplémentaires et/ou d'éclairer les orientations futures.

#### Analyse des données

Une orientation sur l'analyse des données est offerte dans le document d'orientation nationale de 2007 (Environnement Canada, 2007a; Environnement Canada, 2007b). Le SCF/ECCC-ATL recommande de regrouper dans un seul rapport les données de référence aviaires et l'évaluation de l'habitat, de chaque lieu, ainsi que les données de surveillance radar et acoustique. En outre, ce rapport doit comprendre une évaluation globale détaillée du risque pour les oiseaux migrateurs.

Le rapport doit comprendre, au minimum, les éléments suivants :

- o liste des oiseaux nicheurs pouvant être présents (suivant les protocoles de l'atlas des oiseaux nicheurs);
- o estimation du volume des oiseaux (c.-à-d. cibles) par nuits à une échelle de résolution altitudinale fine;
- o données altitudinales;
- o période visée par la surveillance (remarque : la surveillance doit se dérouler à la même heure chaque jour);
- o données météorologiques;
- o cycles des marées et de la lune (remarque : les déplacements des oiseaux de rivages augmentent lors des nuits claires);
- o Résumé de l'activité globale des oiseaux, y compris comment l'activité des oiseaux :
  - o a changé au cours de la nuit et de la saison;
  - o a changé dans la zone d'étude.

#### Surveillance post-construction

Le SCF/ECCC-ATL recommande que les relevés de mortalité après la construction (Environnement Canada, 2007b) ainsi que la surveillance radar et acoustique <u>soient conformes</u> aux méthodes de référence d'avant la construction. Le promoteur (pour tout projet approuvé) doit effectuer une surveillance pendant au moins deux années (consécutives). Le SCF/ECCC-ATL peut recommander une prolongation de la surveillance selon les résultats rapportés.

Il faut apparier les données des relevés de mortalité à celles de la surveillance radar et acoustique afin de fournir un contexte pour les impacts localisés sur les oiseaux. De plus, le promoteur doit comparer les résultats avant et après la construction afin d'évaluer et de quantifier tout changement dans l'assemblage, la densité et les comportements des espèces d'oiseaux migrateurs.

Il faut des permis pour manipuler ou prélever tout oiseau ou chauve-souris mort(e) trouvé(e) au cours des activités de surveillance après construction (p. ex., recherche de carcasses ou utilisation de carcasses dans le cadre d'essais d'efficacité des observateurs ou d'essais de récupération) (ECCC, s. 10.4, 2007). En vertu du *Règlement sur les oiseaux migrateurs*, un permis scientifique est requis pour le prélèvement d'un oiseau migrateur (mort ou vivant), de plumes ou d'une partie, tel que défini dans la LCOM (personne-ressource : <a href="mailto:Permi.Atl@ec.gc.ca">Permi.Atl@ec.gc.ca</a>). Les promoteurs doivent également communiquer avec le service de la faune de la province ou du territoire concerné pour obtenir des renseignements sur les exigences relatives au prélèvement d'espèces qui est de compétence provinciale (des espèces de chauves-souris et d'oiseaux comme les rapaces ne sont pas visés par la LCOM). Les promoteurs doivent examiner et noter soigneusement les conditions des permis, y compris les rapports annuels et les rapports sur les incidents de mortalité. Les promoteurs devront s'assurer qu'ils demeurent en conformité avec toutes les conditions et exigences des permis.

#### Présentation des données et des rapports

Veuillez fournir à SCF/ECCC-ATL les rapports de surveillance. Les rapports doivent être transmis au SCF avant le 31 décembre de l'année civile au cours de laquelle la surveillance a eu lieu. Présentez les rapports au guichet d'évaluation environnementale d'ECCC pour la coordination à l'adresse suivante : FCR Tracker@ec.gc.ca.

Le SCF/ECCC-ATL recommande que le promoteur soumette toutes les données de surveillance relative à l'énergie éolienne (oiseaux migrateurs et chauves-souris) au <u>Suivi des populations d'oiseaux et de chauves-souris relié à l'énergie éolienne</u> (Oiseaux Canada, 2022). Le promoteur doit conserver les données brutes (p. ex., les données sur chaque trajectoire) jusqu'à ce que des normes de données appropriées aient été élaborées.

#### Meilleure approche

Le SCF/ECCC-ATL considère que la meilleure approche consiste en un plan d'étude régionale par comparaison (c.-à-d. une étude par paires de sites) avant-après/témoins-impact (BACI, pour Before-After-Control Impact) ou une étude à gradient d'impact pour les petits projets. Le plan expérimental BACI est conçu pour aider à isoler l'effet potentiel du projet de la variabilité naturelle. Il faut apparier les projets de construction d'éoliennes avec des lieux de référence similaires afin de fournir des évaluations comparatives. Une évaluation comparative des sites doit comparer la densité des oiseaux, la variabilité de la hauteur de vol/les altitudes, les profils d'activité, le moment de l'activité, la cohérence des déplacements, les variables de l'habitat entre les sites témoin (référence) et de traitement (éoliennes) pendant la période de reproduction et la migration. Les données doivent être recueillies dans différents types de conditions météorologiques.

Les sites de référence doivent être situés à au moins 500 m des sites de construction d'éoliennes proposés. Ces sites de référence doivent être placés dans des habitats semblables à ceux du site de l'éolienne auquel ils ont été jumelés. Le SCF/ECCC-ATL recommande que cette approche soit prise en compte dans les plans de surveillance avant et après la construction. Toutes les recommandations relatives au plan de l'étude, présentées ci-dessus, doivent être utilisées pour cette approche (p. ex., la surveillance avant la construction devrait être réalisée avant l'approbation du projet et sd'étendre sur deux ans). En outre, toutes les considérations relatives à l'échantillonnage (p. ex., périodes de migration, collecte de données, rapports) doivent être conformes à la norme minimale.

#### Chauves-souris

La petite chauve-souris brune (*Myotis lucifugus*), la chauve-souris nordique (*Myotis septentrionalis*) et la pipistrelle de l'Est (*Perimyotis subflavus*) sont de petites chauves-souris insectivores inscrites sur la liste des espèces en voie de disparition (*Loi sur les espèces en péril*, annexe 1). Le SCF/ECCC-ATL recommande aux promoteurs de tenir compte des chauves-souris dans leur surveillance avant et après la construction et dans la présentation de leurs données et rapports. Toutefois, le promoteur doit communiquer avec les représentants provinciaux pour obtenir des renseignements supplémentaires sur les chauves-souris et les projets d'énergie éolienne, puisqu'ils sont l'administration responsable de la conservation et de la protection des espèces de chauves-souris.

#### Références

Bence, J. R., A. Stewart-Oaten, et S.C. Schroeter. 1996. Estimating the size of an effect from a Before-After-Control-Impact-Pairs design: the predictive approach applied to a power plant study. Dans R. J. Schmitt et C. W. Osenberg, éditeurs. Ecological impact assessment: conceptual issues and application in coastal marine habitats. University of California Press, Berkeley, Californie, États-Unis.

Environnement Canada. 2007a. Les éoliennes et les oiseaux : document d'orientation sur les évaluations environnementales. 46 pages.

Environnement Canada. 2007b. Protocoles recommandés pour la surveillance des impacts des éoliennes sur les oiseaux. 33 pages.

Hanson, A., I. Goudie, A. Lang, C. Gjerdrum, R. Cotter, et G. Donaldson. 2009. Cadre pour l'évaluation scientifique des impacts potentiels des projects sure les oiseaux. Série de rapports techniques du Service canadien de la faune, n° 508. Région de l'Atlantique, 69 p.

Horton K.G., B.M. Van Doren, P.M. Stepanian, A. Farnsworth A., et J.F. Kelly. 2016. Where in the air? Aerial habitat use of nocturnally migrating birds. Biol. Lett. 12: 20160591. (http://dx.doi.org/10.1098/rsbl.2016.0591

Kunz, T.H., E.B. Arnett, B.M. Cooper, W.P. Erickson, R.P. Larkin, T.J. Mabee, M.L. Morrison, M.D. Strickland, et J.M. Szewczak. 2007. Assessing impacts of wind-energy development on nocturnally active birds and bats: a guidance document. Journal of Wildlife Management 71(8):2449-2486.

Lynn et Auberle. 2009. Guidelines for Assessing the Potential Impacts to Birds and Bats from Wind Energy Development in Northern Arizona and the Southern Colorado Plateau. Northern Arizona University.

Oiseaux Canada. 2022. Base de données du Suivi des populations d'oiseaux et de chauves-souris relié à l'énergie éolienne. Consulté le 16 mars 2022, à l'adresse <a href="https://www.bsc-eoc.org/naturecounts/wind/main.jsp">https://www.bsc-eoc.org/naturecounts/wind/main.jsp</a>.

Osenberg, C.W., R.J. Schmitt, et S.J. Holbrook. 1994. Detection of environmental impacts: natural variability, effect size, and power analysis. Ecological Applications 4(1): 16-30.

Richardson, W.J. 1972. Autumn migration and weather in Eastern Canada: A radar study. American Birds 26(1): 10-17

Service canadien de la faune. 2018. Wind Turbines and Birds – Updated Guidance for Environmental Assessment and Monitoring, Service canadien de la faune - Région de l'Atlantique. 2 pages.



Barrington Place 1903 Barrington Street Suite 2085 Halifax, Nova Scotia Canada B3J 2P8

Date: January 31, 2023

To: Candace Quinn, Environmental Assessment Officer

From: Peter Labor, Director, Protected Areas and Ecosystems

Subject: Westchester Wind Project, Cumberland County, Nova Scotia

#### Scope of review:

This review focuses on the following mandate: protected areas and ecosystems

#### **Technical Comments:**

Comments from the Protected Areas and Ecosystems Branch on the addendum are limited to the following requirement for more information specified in the Minister's March 14, 2022, decision: "In consultation with ECC Protected Areas and Ecosystems Division provide an analysis of potential impacts to biodiversity values and land-scape scale ecological connectivity from habitat fragmentation. Identify any associated mitigation measures."

The addendum to the EA registration document provides adequate information to identify the potential environmental effects of the project on biodiversity values and landscape scale ecological connectivity. Most of this information is provided in Section 5 of the addendum, beginning on p.175 (not p. 183 as indicated in the Table of Contents). Information supplied through the addendum and reviewed by staff includes mapping and/or metrics for land cover, forest type and seral stage, road index, forest connectivity, and the footprint of various project infrastructure elements (e.g., road expansions, collector lines), as well as proposed mitigation measures.

After reviewing relevant parts of the addendum, including forest intactness information and a connectivity analysis, it is not clear how mitigation measures proposed in the addendum are aligned with the with guidance from p.17 of the Department's *Guide to Preparing an EA Registration Document for Wind Power Projects in Nova Scotia* (*Revised 2021*) encouraging avoidance of relatively intact natural areas, and lands of importance for ecological connectivity.

More specifically, it appears that proposed mitigation is based on findings in the addendum that may underestimate the project area's importance for biodiversity values and landscape scale ecological connectivity, as well as the impacts of specific activities such as road and corridor construction and upgrading. The effectiveness of the proposed mitigation measures seems somewhat dependent on which turbine locations are adopted, and the amount and location of associated road and corridor upgrades and new construction. Note: the proponent has indicated that they intend to pursue construction at only 12 of 28 potential locations.

#### **Summary of Recommendations:**

It is recommended that consideration be given to advancing the project in such a way that the proposed measures mitigate impacts to biodiversity values and landscape scale ecological connectivity from habitat fragmentation. More specifically,

 The project should, to the extent possible, be concentrated within a development footprint that best avoids the most intact and naturally forested portion of the project site.

This recommended condition aligns with Mitigation Measures #1 and #2 in the addendum which aim to site the project in an area with previous anthropogenic disturbance and high road density. The recommended condition appears to also align with Mitigation Measure #3 which intends to limit the project footprint "to that which is necessary to enable the project to be carried out". As the project description calls for development of only up to 12 of 28 potential turbine locations, it is not clear that which turbines will be selected for the project to be viable while minimizing disturbance of relatively intact natural areas.

 The proponent should, to the extent possible, minimize impacts to intact forest patches.

This condition aligns with Mitigation Measure #6 which aims to retain and restore natural forest patches.

• The project should, to the extent possible, result in no net increase in road density for the project area.

This condition aligns with Mitigation Measures #4 and #5, which are aimed at reducing road density and habitat fragmentation.



Communities, Culture, Tourism and Heritage

1741 Brunswick Street 3rd Floor P.O. Box 456 Halifax, NS B3J 2R5

Date: February 3<sup>rd</sup>, 2023

To: Candance Quinn, Nova Scotia Environment

From: Coordinator Special Places, Culture and Heritage Development

Subject: Westchester Wind Project – Additional Information

Staff of the Department of Communities, Culture, Tourism, and Heritage has reviewed the EA documents for the Westchester Wind Project – Additional Infomration and have provided the following comments:

#### Archaeology

Staff reviewed the sections of the EA document pertaining to archaeology. Archaeology Staff at CCTH have no additional concerns.

#### **Botany**

Staff reviewed the sections of the EA document pertaining to botany. The original concerns surrounding the avoidance of SAR lichens were addressed with the re-locating the Roads. Botanical Staff at CCTH have no additional concerns.

#### **Palaeontology**

Staff have reviewed the sections of the EA document pertaining to palaeontology. Paleontological Staff at CCTH have examined the bedrock geology maps for the general area around Westchester Station. The bedrock geology includes Carboniferous Polly Brook and Boss Point Formations. These units have potential to have fossils present if bedrock excavation is planned. The proposal document (Part 1) does not mention geology, at all. It only mentions that if/when cement pads for the turbines are installed a detailed geotechnical survey will be conducted.

#### Zoology

Staff reviewed the sections of the EA document pertaining to zoology. Zoological Staff at CCTH have no additional concerns.

Westchester Wind Project, Natural Forces – Environmental Assessment – Public Input

To: Environmental Assessment Branch, NS Department of Environment and Climate Change

From: Protect Wentworth Valley

Process - On August 17, 2022, the province announced that five (5) projects were selected as a result of the procurement RFP to provide renewable energy which was released by the Province in February 2022. The Westchester Wind Project was not one of the five selected projects. We therefore question why the Department of Environment, and more specifically the Minister of Environment, is investing the time and resources required to assess this project. They have committed to, on or before February 20, 2023, to make a decision on whether the project can be granted conditional environmental assessment approval. It appears a contradiction of process, accountability and transparency if a project that was not selected, by what the Government describes as a rigorous and diligent selection process (at the cost of many taxpayers' dollars), is able to submit an EA to the Minister and possibly receive approval.

The Nova Scotia government has not done landscape level planning for the province or for crown land. Without this work being complete it is impossible to determine risks that large industrial projects pose to the environment around ecological connectivity, biodiversity, Species-at-Risk, cumulative effects, etc.

The Environmental Assessment process requires a thorough update and until that happens all EA's submitted before that time need extra careful consideration around connectivity, biodiversity, wetlands, SAR and their recovery plans.

The proponent selects and pays the consultant (Dillon) with no independent verification. Volunteers and local community members that are most impacted do not have the expertise to provide this verification. The government should be doing it independently on their constituents' behalf.

Timing – Natural Forces registered the Environmental Assessment on December 22, 2022, with comments due before January 31, 2023. This does not provide adequate time for informed responses from the public given the holiday season. One week was added to the EA time but most people are extremely distracted at this time of year for two to four weeks. How was the public informed?

Lack of Community Engagement – The studies are completed by those not from the community or those that live in the community and with very little input from community residents. The disregard for community involvement and input is further evidenced by the proponent scheduling two community meetings after the deadline for the EA public input. This is not commitment to community engagement.

We have concerns related to the timing and the process in work supporting conclusions and we feel studies were not sufficiently performed to get useful data. There appears to be gaps in the field research. For example, two-year baseline survey for flora and fauna, and water quality research beyond simple pH testing.

The project area is considered core moose habitat and many moose are known to frequent the region but little details are included regarding the mainland recovery plan and the mitigation effects of the proponent plans. Road building and the related habitat destruction are significant threats to moose but there was little detail on what best practices road building the proponent will use in core moose habitat as noted in the recovery plan.

The updated Environmental Assessment is unclear whether or not 3 wetlands/turbine locations will be impacted. No conditional Environmental Assessments should be given until a final proposal is confirmed.

Natural Forces EA failed to note private protected conservation areas close to the project area. The Nova Scotia Nature Trust has three protected properties in the Wentworth Valley that do not appear to be mentioned in the EA.

Related to these properties and the adjacent Wentworth Valley Wilderness Area the EA does not address ecological connectivity with these four conservation areas and the project area. The EA only references connectivity issues west towards the Portapique Wilderness Area.

We also have special concerns in the following areas:

- Water courses and fish habitat including the threatened Atlantic salmon in three different major watersheds
- Wetland, brooks, streams, in this area; widening of roads to industrial roads
- Bird and bat habitat
- Real life acoustic impact in the unique topography of the project area? Has anything been done beyond desktop analysis?
- Environmental cost of this project? (e.g., carbon sequestration, ecological biodiversity, water quality impact / core sample done before/after and effect on water for animals and people/analysis of water quality)
- Visual impact
- Mix of habitat including mature Acadian forest
- Existing Roads will have to be widened to accommodate this project. An existing road that is referenced is a trail.

As Nova Scotians, and members of the community, we expect an objective and unpartisan, environmental assessment of the highest standard. This is critical as Nova Scotia is in a crisis of biodiversity loss. The health and survival of Nova Scotia's essential life support systems — land, air, waters, wildlife -- are at stake. The EA must be rigorous and preserve these threatened life support systems. The loss of nature accelerates climate change.

Thank you for your consideration,

Protect Wentworth Valley

protectwentworthvalley.com

info@protectwentworthvalley.com

From:
To:
Subject:
Date:

**From:** r@gmail.com>

**Sent:** January 31, 2023 10:20 AM

**To:** Environment Assessment Web Account <EA@novascotia.ca>

**Subject:** Proposed Project Comments

#### \*\* 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

Project: westchester-wind-project Comments: Natural Forces EA Response, Natural forces have strategically placed themselves, yet again, in a position to get their EA addendum submitted and deadline for comments ended, prior to any FURTHER community engagement or answers to questions. They have set community meeting dates for AFTER submission of comment periods- for February 7th and February 9th- if you review previous engagement within the community, you could not it also was held after initial EA and RFP submission deadlines- with little advertisement within the community. These companies, out to save the world with â?~greenâ?T energy â?" fail and fail again to provide communities with clear pictures of what these wind turbines mean to the communities surrounding them. Communities have asked for landscape planning from these companies- including Natural Forces- we have received nothing. To the extent we have gone and engaged experts on our own time to provide us with such. We have also asked for socio economic studies of the benefits of these projects to communities. WE have seen no evidence of return of benefits to the greater community surrounding these communities beyond the requirement of them to engage with indigenous communities. The mainland moose is greatly endangered- habitats will be destroyed by these projects. Nothing in the parties submitted EAâ?Ts show how they are going to prevent this and adapt the area to be â?~mooseâ?T friendly. Also, there are many intertwined Protected Areas surrounding this project area that are protected because of Specieâ?Ts at risk-I do not see any mention of any of that in this EA. Plans lack detailed photos of the terrain that will be destroyed. There are few areas left in this province with the magnificent Acadian type of forest that exists in the path of this projects development. Are we to destroy the environment- to save the environment? Does the existence of nature no longer matter in the escape from non renewable resources? I, personally, live very close to this development- I have not been approached once about the visual impact and acoustics issues that exist with many existing projects of this magnitude. When will people who live in these areas matter? Is our rural peaceful living to be impacted because we are of the minority of the demand of the city dwellers? We have asked the question- how long before destruction of environment carbon because of construction of these â?~greenâ?T energy projects breaks even based on the production of these projects? We have not received an answer. WE are handed quotes of â?~project resultsâ?T in other continents. We are in an area of unique terrain. The acoustics between valleys and mountains will greatly magnify the resulting noise of

these projects. We have asked to see information- weâ? Tve seen nonrelative to the project. We live in an epi center of migrating raptors and birds.

Not one mention of the loon species is even mentioned in their EA. The common Loon, which is of the species that I discovered in this area, is a protected migratory bird- under the Migratory Birds Convention Act in Canada. It alarms me that this species was not mentioned once in the EA despite it embodying fresh water, natural habitat for this bird. And this is just one of the species under this act in this area.

https://northernontario.ctvnews.ca/n-s-woman-rescues-loon-stuck-on-side-of-highway-1.6203632? fbclid=lwAR2XnbUQozlkXYsJ8kSszNAS1JINR1QhM2ZlGvA4yl3aBSKDgK95W2GFWcE The fact that a proponent can do itâ?Ts own environmental studies without verification by an armâ?Ts length party is particularly disturbing. There is nothing or anyone to verify the studies and numbers submitted. How is this a fair process? Would you let an accused murderer do their own investigation on the matter? This is essentially the same thing that is being allowed here. And what faith should we even have in an EA process when currently in this same area an already defunct Windmill project failed to follow their EA in regard to decommissioning their windmills and only after the citizens reminded the Government of this EA did it actually come to point. It would be a travesty if this EA were to be approved without thorough, further investigation. Sincerely,

Email: @gmail.com Address: Municipality: Westchester

email\_message: Privacy-Statement: agree x: 59 y: 31