ECCC-CWS recommends the following best management practices:

- The proponent should develop mitigations for programs that introduce very loud and random noise disturbance (e.g., blasting programs) during the migratory bird breeding season for their region.
- The proponent should, where possible, prioritize construction works in areas away from natural vegetation while working during the migratory bird breeding season. Conducting loud construction works adjacent to natural vegetation should completed outside the migratory bird breeding season.
- The proponent should keep all construction equipment and vehicles in good working order and loud machinery should be muffled if possible.

### <u>Appendix 1</u> Excerpt from the Draft ECCC-CWS Residence Description (January 2022)

#### Little Brown Myotis and Northern Myotis

Any place used as a maternity roost by Little Brown Myotis or Northern Myotis is considered a residence. A maternity roost site may be a natural site, such as a cavity in a tree, a rock crevice, a cave or the underside of loose bark. Little Brown Myotis also use anthropogenic sites such as the underside of bridges, attics in a building or other structures (Fenton and Barclay 1980; Coleman and Barclay 2011). Little Brown Myotis is one of the few bat species that uses buildings and other anthropogenic structures to roost. Females of both species are thought to select a quality maternity roost at the expense of travelling longer distances to forage possibly indicative of a limited number of suitable maternity roosting sites in foraging areas (Broders et al. 2006, Randall et al. 2014).

Maternity roosts in trees are often associated with natural holes, holes made by cavity excavators (*e.g.*, woodpeckers) or holes resulting from broken limbs or under loose bark. Typically, maternity roost sites are located in tall, largediameter trees (DBH >30 cm), within forests (Kalcounis-Ruepell et al. 2005; Olson 2011; Olson and Barclay 2013) and older forest stands are preferred over younger forest stands (Barclay and Brigham 1996; Crampton and Barclay 1996; Jung et al. 1999). A larger tree size will usually house a larger number of bats (Olson 2011). Broders and Forbes (2004) found a preference for deciduous trees (Sugar Maple, Yellow Birch, and American Beech) and attributed this preference to deciduous trees' susceptibility to limb breakage and decay (creating available habitat for roosting), long-lived characteristics (permitting repeated use by bats), and their upland habitats with increased solar radiation (reducing energy costs to maintain the bat's body temperature).

Maternity roosts located in buildings tend to be located in warm but uninhabited areas of the building or in abandoned ones. Attics in older buildings are commonly used.

#### Tri-colored Bat

Little is known about maternity roosts of Tri-colored Bat. However, the species is known to roost in clumps of dead tree foliage and lichens and broken branches in coniferous and deciduous tree species (Veilleux et al. 2003, Perry and Thill 2007, Poissant et al. 2010). Tri-colored Bats also use barns and other anthropogenic structures for maternity roosts, and they may also use tree cavities, broken branches on trees, caves and rock crevices (Fujita and Kunz 1984). In Nova Scotia, a local population of Tri-colored Bat roosted solely in clumps of *Usnea* lichen and mostly within spruce trees (Poissant et al. 2010).

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#### WATER QUALITY

Pollution prevention and control provisions of the *Fisheries Act* are administered and enforced by ECCC. Subsection 36(3) of the *Fisheries Act* prohibits "anyone from depositing or permitting the deposit of a deleterious substance of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter such water".

It is the responsibility of the proponent to ensure that activities are managed so as to prevent the release of substances deleterious to fish. In general, compliance is determined at the last point of control of the substance before it enters waters frequented by fish, or, in any place under any conditions where a substance may enter such waters. Additional information on what constitutes a deposit under the *Fisheries Act* can be found here: <u>https://www.canada.ca/en/environment-climate-change/services/managing-pollution/effluent-regulations-fisheries-act/frequently-asked-questions.html</u>

#### ACCIDENTS AND MALFUNCTIONS

Hazardous materials (e.g. fuels, lubricants, hydraulic oil) and wastes (e.g. waste oil) should be managed so as to minimize the risk of chronic and/or accidental releases. For example, the proponent should encourage contractors and staff to undertake refueling and maintenance activities on level terrain, at a suitable distance from environmentally sensitive areas including watercourses, and on a prepared impermeable surface with a collection system.

The proponent is encouraged to prepare contingency plans that reflect a consideration of potential accidents and malfunctions and that take into account site-specific conditions and sensitivities. The Canadian Standards Association publication, *Emergency Preparedness and Response,* CAN/CSA-Z731-03, reaffirmed 2014), is a useful reference.

All spills or leaks, such as those from machinery or storage tanks, should be promptly contained and cleaned up (sorbents and booms should be available for quick containment and recovery), and reported to the 24-hour environmental emergencies reporting system (Maritime Provinces 1-800-565-1633)

If you have any questions, please direct any further correspondence to ECCC's environmental assessment window for coordination at: <u>FCR\_Tracker@ec.gc.ca</u>.

#### Suzanne Wade

Environmental Assessment Analyst, Environmental Stewardship Branch Environment and Climate Change Canada/Government of Canada



# Survey Protocol for Species at Risk Bats within Treed Habitats Little Brown Myotis, Northern Myotis & Tri-Colored Bat April 2017



Ontario Ministry of Natural Resources and Forestry Guelph District



# Introduction

This document describes Guelph District's recommended protocol for confirming presence/absence of Little Brown Myotis, Northern Myotis and Tri-colored Bat, where it is determined that suitable habitat for the establishment of maternity roosts is present.

This document replaces any previous versions of the survey protocol, and may be updated periodically as new information becomes available.

Note that those undertaking projects that may impact anthropogenic structures and isolated trees considered suitable habitat for bats should refer to Guelph District's *Survey Methodology for the Use of Buildings and Isolated Trees by Species at Risk (SAR) Bats.* 

Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*) and Tri-colored Bat (*Perimyotis subflavus*) are listed as provincially endangered and receive species and general habitat protection under the *Endangered Species Act, 2007* (ESA).

Where the habitat of an endangered or threatened species is not prescribed by regulation, the ESA defines habitat as an area on which a species depends on, directly or indirectly, to carry out its life processes. Such processes include reproduction, rearing, hibernation, migration or feeding, as well as places being used by members of the species.

Throughout eastern North America, a disease known as white-nose syndrome (WNS), which is caused by the fungus *Pseudogmnoascus destructans*, is the primary cause of the decline of Little Brown Myotis, Northern Myotis and Tri-colored Bat populations. Where population numbers have significantly decreased due to WNS, the relative magnitude of other threats (e.g., habitat destruction) may increase. This is because the mortality or displacement of a small number of the remaining individuals can have a major impact on the survival of local populations and their recovery.

Many bat species are known to have high fidelity to their hibernacula and maternity roost sites. It is not uncommon for bats to return to the same roost tree or group of trees in successive years. Some bats switch roost trees periodically within the same treed area over the summer, likely to avoid predators or parasites or in search of a warmer or cooler roost.

Of the SAR bats species noted in this protocol, Little Brown Myotis is the most frequently encountered species in treed communities due to higher population numbers relative to other SAR bat species. Little Brown Myotis establishes maternity roosts within tree cavities and under loose or exfoliating bark, especially in wooded areas located near water. Foraging habitat includes over water and in open areas between water and forest. Favoured prey consists of aquatic insects (e.g., mayflies, midges, mosquitos and caddisflies). In agricultural environments, Little Brown Myotis tend to follow linear wooded features, such as hedgerows, for commuting and foraging.

Northern Myotis is less frequently encountered relative to Little Brown Myotis but selects similar maternity roost space. Northern Myotis roosts within tree crevices, hollows and under the bark of live and dead trees, particularly when trees are located within a forest gap. Northern Myotis switch roost trees more frequently compared to other SAR bat species (i.e., every 1-5 days) and are relatively

slow flyers. Northern Myotis is adapted to hunting in cluttered environments, such as within the forest along edges, where it gleans and hawks its prey (primarily moths).

Tri-coloured Bat establishes maternity roosts within live and dead foliage within or below the canopy. Oak is the preferred roost tree species, likely because oaks retain their leaves longer than other trees. Maples are also thought to be important for roosting, although maples are selected far less often compared to oaks. Some studies have shown that Tri-colored Bat prefers dead leaves over live leaves, especially if the dead leaves are situated on a live tree i.e., along a broken branch. Other documented roost sites include dogwood leaves, within accumulations of pine needles, in squirrel nests and in tree cavities. Within a forest, the location of maternity roost trees varies from dense woods to more open areas, although roosts are rarely found in deep woods. Although Tri-colored Bat switches roosts over the summer, this species has very high site fidelity to particular leaf clusters within a season. Foraging occurs along forested riparian corridors, over water (e.g., ponds and rivers) and within gaps in forest canopies. This species is an insect generalist, feeding on species such as leafhoppers, ground beetles, flies, moths and flying ants. The Tri-colored Bat is less frequently encountered compared to Little Brown Myotis and Northern Myotis. Unlike other SAR bats, Tri-colored Bat rarely roosts in buildings, and therefore relies heavily on treed areas for rearing its young.

<u>Note</u>: Confirmation of individual maternity roost trees is extremely challenging. Exit surveys are not always reliable, since SAR bats are known to periodically switch roost trees within a treed area over the summer. In addition, techniques used to confirm maternity roost trees, such as mist netting, are quite invasive and therefore not recommended.

The survey protocol that follows focuses on <u>confirming presence/absence</u> of Little Brown Myotis, Northern Myotis and Tri-colored Bat within treed habitats considered suitable for the establishment of maternity roosts, which is sufficient information to apply species and habitat protection under the ESA.

If an Ecological Land Classification (ELC) ecosite is determined to be suitable for the establishment of maternity roosts, trees with suitable attributes are present, and SAR bats are detected during the maternity roost season (June), it can be concluded with a high degree of certainty that the ELC ecosite represents the habitat most in use during the breeding season for roosting, feeding, rearing of young and resting.

# Phase I: Bat Habitat Suitability Assessment

Little Brown Myotis, Northern Myotis and Tri-colored Bat establish maternity roosts in treed areas consisting of deciduous, coniferous or mixed tree species. For bats that roost under bark or within cracks, hollows or crevices, tree species is important only as it relates to its structural attributes. For example, trees that retain bark for longer periods or are more susceptible to fungal infections/attract cavity excavators are more likely to provide appropriate roosting space.

Following the completion of ELC mapping of a study area, <u>any coniferous, deciduous or mixed</u> <u>wooded ecosite, including treed swamps, that includes trees at least 10cm diameter-at-breast height</u>

(dbh) should be considered suitable maternity roost habitat. For cultural treed areas, such as plantations, consultation with the Ministry of Natural Resource and Forestry (MNRF) is recommended to determine if these habitats may be suitable for the species.

If suitable habitat is to be impacted by a proposed activity, project proponents should proceed to Phase II. It is recommended that the proponent contact the MNRF to discuss the need for additional work with respect to SAR bats.

# Phase II: Identification of Suitable Maternity Roost Trees

As previously described, Tri-colored Bat primarily roosts in tree foliage (mainly oak), while Little Brown Myotis and Northern Myotis select loose bark, cracks and cavities. Because of these differences, two separate field data sheets should be completed by the proponent to identify and map suitable roost trees for Tri-colored Bat (Appendix A) and Little Brown Myotis/Northern Myotis (Appendix B). The data collected in Phase II will help inform the positioning of acoustic monitoring stations in Phase III.

The timing of field visits is important in order for an observer to be able to clearly identify tree attributes that are suitable for the establishment of maternity roosts:

- **Tri-colored Bat**: field visits should take place during the <u>leaf-on</u> season the same year that acoustic monitoring is to be conducted so that foliage characteristic (i.e., dead/dying leaves along a dead branch) can be observed.
- Little Brown Myotis/Northern Myotis: field visits should occur during the <u>leaf-off</u> period so that the view of tree attributes (hollows, cracks etc.) is not obscured by foliage.

Note that for large ecosites (e.g., >10 ha) where a thorough walk-through may not be possible or practical, the proponent should discuss the study design for Phase II with the MNRF prior to undertaking field work.

#### i) Tri-colored Bat

Leaf roosts are shaped like umbrellas with a "roof" and a hollow core where bats rest. Studies have shown that oak leaves are the preferred roost site. Maple leaves are also selected, although less commonly. It is thought that Tri-colored Bat may prefer roost trees in open woodlands, as opposed to deep woods.

Within each ecosite identified as suitable maternity roost habitat in Phase I, the following trees should be documented on the field data sheet (Appendix A)

- any oak tree <a>10cm dbh</a>
- any maple tree ≥10cm dbh <u>IF</u> the tree includes dead/dying leaf clusters
- any maple tree <a>25cm dbh</a>

#### ii) Little Brown Myotis and Northern Myotis

Within each ecosite identified as suitable maternity roost habitat in Phase I, all "snags" should be identified and relevant information recorded on the field data sheet provided in Appendix B.

For purposes of this exercise, a "snag" is any standing <u>live or dead</u> tree  $\geq$ 10cm dbh with cracks, crevices, hollows, cavities, and/or loose or naturally exfoliating bark.

During the field visit, the Decay Class should be noted for each snag (see Figure 1). Snags in an early stage of decay (which also includes healthy, live trees) may be preferred by Little Brown Myotis and Northern Myotis if suitable attributes for roost space are present. However, since SAR bats will also roost in snags outside of Class 1-3, any snag >10cm dbh with suitable roost features should be documented. For trees with cavities, the entrance can be high or low ("chimney-like") on the tree.

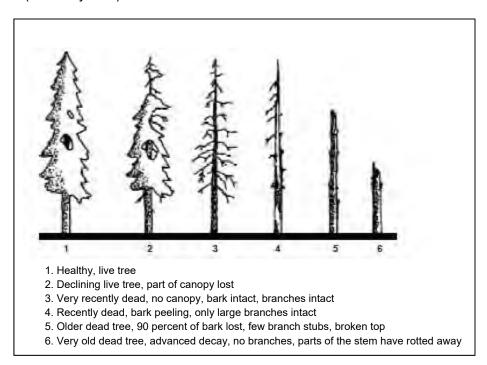


Figure 1: Snag classification (Decay Class 1-3 is considered an early decay stage)<sup>1</sup>

In addition, proponents should be aware that some tree species, such as shagbark hickory, silver maple and yellow birch, have naturally exfoliating bark that may be suitable for establishing maternity roosts. Trees  $\geq$ 10cm dbh exhibiting these characteristics should be considered "snags" as per the definition above and included on the field data sheet provided in Appendix B.

<u>Note</u>: For efficiency (especially for larger ecosites e.g., >10 ha), a proponent may choose to undertake snag density surveys while conducting the work required in Phase II. For a detailed methodology, refer to Phase IV of this protocol.

<sup>&</sup>lt;sup>1</sup> Watt, Robert and Caceres, M. 1999. Managing snags in the Boreal Forests of Northeastern Ontario. OMNR, Northeast Science & Technology. TN-016. 20p.

# Phase III: Acoustic Surveys

Within each ELC ecosite determined to be suitable maternity roost habitat in Phase I, acoustic surveys are recommended to confirm presence/absence of Little Brown Myotis, Northern Myotis and Tri-colored Bat. As described below, acoustic detectors should be placed in the <u>best possible</u> <u>locations</u> in order to maximize the probability of detecting all three SAR bats species. The data collected in Phase II should be used to select optimal locations for monitoring. The trees to be targeted for acoustic monitoring will typically be a subset of the trees documented in Phase II.

### Density and Optimal Location of Acoustic Monitoring Stations:

Multiple stations may be required to cover an ecosite adequately (see example in Figure 2). Based on the microphone range of most broadband acoustic detectors (20-30m), **4 stations/hectare** is needed for full coverage of an ELC ecosite.

Strategic placement of acoustic detectors is critical for the successful isolation of high-quality bat calls. Recommended positioning is to locate acoustic detectors **within 10m of the <u>best</u> potential maternity roost trees**. To increase the probability of detecting all three SAR bat species, detectors should be divided proportionally to target suitable roost trees (if present) for Tri-colored Bat and Little Brown Myotis/Northern Myotis.

Prior to undertaking acoustic surveys, it is recommended that the proponent discuss the proposed location of acoustic monitoring stations with the MNRF.

(i) Tri-colored Bat

Although Tri-colored Bat will roost within both live and dead foliage, it appears that reproductive females may prefer clusters of dead leaves, especially if they are situated on a live tree. Using the information collected on the field data sheet (Appendix A), the <u>best</u> suitable maternity roost trees for Tri-colored Bat should be selected according to the following criteria (in order of importance):

#### If oaks are present:

- Live oak with dead/dying leaf clusters
- Dead oak with retained dead leaf clusters
- Live oak (no dead leaf clusters) with the largest dbh (>25cm)
- Oak within a forest gap

#### If oaks are absent:

- Live maple with dead/dying leaf clusters
- Dead maple with retained dead leaf clusters
- Live maple (no dead leaf clusters) with the largest dbh (>25cm)
- Maple within a forest gap

Note that if a cluster of tree species with attributes preferred by Tri-colored Bat is present, this may be a good area to target acoustic monitoring.

#### (ii) Little Brown Myotis and Northern Myotis

Bats that roost under tree bark or within crevices or cavities frequently select the tallest and largest diameter snags, which often extend above the forest canopy. This is because larger snags better retain solar heat, which benefits the pups. Tall trees within a forest gap or along an edge may also have a less obstructed flight approach for bats.

Using the information collected on the field data sheet completed in Phase II, the <u>best</u> suitable maternity roost trees for Little Brown Myotis/Northern Myotis should be selected using the following criteria (in order of importance):

- Tallest snag
- Snag exhibits cavities/crevices often originating as cracks, scars, knot holes or woodpecker cavities
- Snag has the largest dbh (>25 cm)
- Snag is within the highest density of snags (e.g., cluster of snags)
- Snag has a large amount of loose, peeling bark (naturally occurring or due to decay)
- Cavity or crevice is high on the tree (>10 m) or is "chimney like" with a low entrance
- Tree is a species known to be rot resistant (e.g., black cherry, black locust)
- Tree species provides good cavity habitat (e.g., white pine, maple, aspen, ash, oak)
- Snag is located within an area where the canopy is more open
- Snag exhibits early stages of decay (Decay Class 1-3)

**Note**: The sole purpose of the above-listed criteria is to determine the best placement of acoustic monitors in order to maximize the probability of detecting Little Brown Myotis and Northern Myotis. The listed criteria are <u>NOT</u> intended for any type of snag "ranking". Snags that do not include any of the above characteristics may still be used as a maternity roost site. For example, the absence of snags >25 cm dbh by no means indicates that there is no potential maternity roost habitat present on a site.

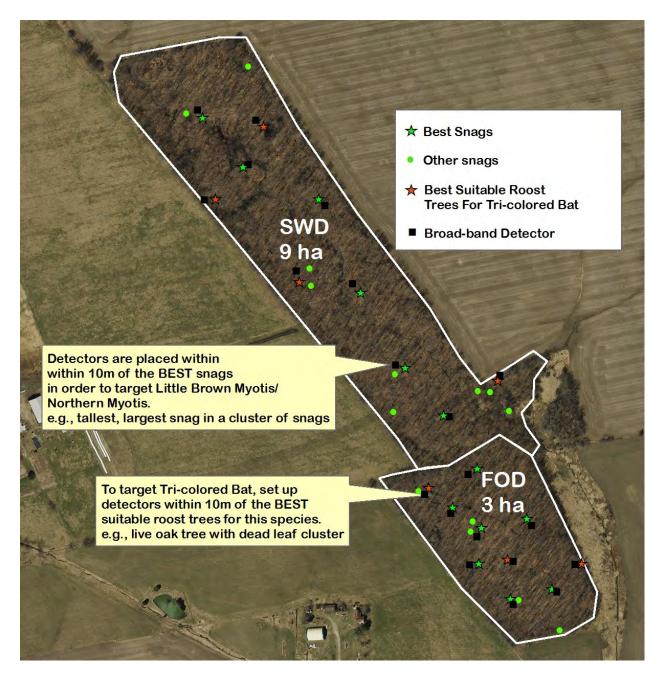


Figure 2: Hypothetical example illustrating the location and density of acoustic detectors i.e., 4/ha to a maximum of 10 per ELC ecosite.

#### Timing and Weather Conditions:

Acoustic surveys should take place on evenings between <u>June 1<sup>st</sup> and June 30<sup>th</sup></u>, commencing after dusk and continuing for 5 hours.

Surveys should occur on warm/mild nights (i.e., ambient temperature >10°C) with low wind and no precipitation. <u>At least 10 visits on nights that align with the above conditions where no SAR bat</u> <u>activity is detected are required to confirm absence.</u>

Note that project proponents may cease survey work at any point once documentation of all three SAR bats species presence occurs.

### Recommended Equipment Guidelines for Best Results:

- Broadband detectors (full spectrum) should be used. These may be automated systems in conjunction with computer software analysis packages or manual devices with condenser microphones.
- Acoustic monitoring systems should allow the observer to determine the signal to noise ratio of the recorded signal (e.g., from oscillograms or time-amplitude displays). These provide information about signal strength and increase quality and accuracy of the data being analysed.
- Microphones should be positioned to maximize bat detection i.e., situated away from nearby obstacles to allow for maximum range of detection and angled slightly away from prevailing wind to minimize wind noise.
- The same brand and/or model acoustic recording system should be used throughout the survey (if multiple devices are required), as the type of system may influence detection range/efficiency. If different systems are used, this variation should be quantified.
- Information on the equipment used should be recorded, including information on all adjustable settings (e.g., gain level), the position of the microphones, and dates and times for each station where recording was conducted.

### <u>Analysis</u>:

Analytical software should be used to interpret bat calls and process results. Data should be analysed to the species level (as opposed to the genus level) in order to confirm presence/absence of SAR bats. Note that MNRF may request a copy of the raw acoustic data file when reviewing the results of the work completed in Phase III.

# Additional Notes:

Project proponents should be aware that information about the number of bat passes detected in an area does not allow for an estimate of the number of bats present because there is not a 1:1 relationship between the number of passes and the number of bats responsible for those passes. It is not possible to distinguish between several bat passes made by a single bat flying repeatedly through the study area vs. several bats each making a single pass. Therefore, bat passes cannot provide a direct estimate of population densities.

#### Next Steps:

If Little Brown Myotis and/or Northern Myotis are detected, project proponents should proceed to Phase IV (Snag Density Survey). If only Tri-colored Bat is detected, snag density is not relevant and the proponent can proceed directly to Phase V (Complete an Information Gathering Form).

# Phase IV: Snag Density Survey

Snag density information may be useful when the MNRF is considering the potential impact of a proposed activity on Little Brown Myotis and/or Northern Myotis. Snag density for each suitable ELC ecosite should be noted on the field data sheet provided in Appendix B. Surveys should take place during the leaf-off period so that the view of tree cavities, cracks and loose bark etc., is not obscured by foliage.

Snag density is a qualitative assessment of a treed ecosite, not a method of determining presence/absence of maternity roost habitat. There is <u>no minimum threshold</u> in terms of the number of snags/ha for an ELC ecosite to be considered suitable maternity roost habitat. However, an ELC with 10 or more snags/ha may be considered to be <u>high quality</u> potential maternity roost habitat. This information may be relevant when considering overall benefit in cases where a s.17(2)c permit under the ESA is required.

<u>For smaller ecosites</u> (e.g., <10 ha), snag density (# of snags/ha) can be calculated by dividing the number of snags mapped in Phase II by the total area of the ecosite.

Example:

ELC ecosite	Size (ha)	# of snags	Snag Density
WOD-M4	3.1	14	4.5 snags/ha
FOD-M2	0.8	9	11.25 snags/ha

For larger ecosites (e.g., >10 ha), sample plots can be used to estimate snag density within the suitable ELC ecosite, as follows:

- Select random plots across the represented ELC ecosite
- Survey fixed area 12.6m radius plots (equates to 0.05 ha)
- Survey a minimum of 10 plots for sites up to 10 ha, and add another plot for each additional ha up to a maximum of 35 plots
- Measure the number of suitable snags in each plot
- Use the formula  $\pi r^2$  to calculate the number of snags/ha (where r=12.6m)
- Map the location of each snag density plot and record the UTM location using a GPS
- Calculate snag density for the ELC ecosite (snags/ha)

# Example: ELC Ecosite FOD-M2 (12 ha)

# of sample plots	Total # of snags in sample plots	# of sample plots x r	Area of plots (πr <sup>2</sup> )	Snag Density
12	48		3.14(151.2m) <sup>2 =</sup> 71784.9m <sup>2</sup> = 7.18 ha	48 snags in 7.18 ha = 6.7 snags/ha

# Phase V: Complete an Information Gathering Form

If SAR bats are detected during Phase III, the proponent should complete an Information Gathering Form (IGF) and submit it to the MNRF, Guelph District Office (<u>esa.guelph@ontario.ca</u>) for review. The IGF is available by searching the form repository on the government of Ontario website: <u>http://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf</u>.

The MNRF will determine whether an activity is likely to kill, harm or harass a listed species and/or damage or destroy its habitat. The MNRF requires all of the necessary details and results from this survey protocol to be included on the IGF in order to make this determination.

For more information on overall benefit permits, including submission guidelines, process and timelines, please visit: <u>https://www.ontario.ca/page/species-risk-overall-benefit-permits</u>.

# Appendix A – Suitable Maternity Roost Trees for Tri-colored Bat

Include all oak trees <a>10cm dbh (if present). If oaks are absent, include maples <a>10cm dbh IF dead/dying leaf clusters are present; and maples <25cm dbh if no dead/dying leaf clusters are present.</a>

Project Name:

Survey Date(s):

Site Name:

Observer(s):

ELC Ecosite:

Tree#	Tree Species ID	Tree Status (live/dead)	Dbh (cm)	Tree Structural & Locational Attributes (check all that apply)	Easting	Northing	Notes
				<ul> <li>dead/dying leaf cluster</li> <li>cavity</li> <li>open area/forest gap</li> <li>forest edge          <ul> <li>interior</li> <li>preferred tree species</li> <li>within 10m?</li> </ul> </li> </ul>			
				<ul> <li>☐ dead/dying leaf cluster</li> <li>☐ cavity</li> <li>☐ open area/forest gap</li> <li>☐ forest edge □ interior</li> <li>☐ preferred tree species</li> <li>within 10m?</li> </ul>			
				<ul> <li>□ dead/dying leaf cluster</li> <li>□ cavity</li> <li>□ open area/forest gap</li> <li>□ forest edge □ interior</li> <li>□ preferred tree species</li> <li>within 10m?</li> </ul>			
				<ul> <li>☐ dead/dying leaf cluster</li> <li>☐ cavity</li> <li>☐ open area/forest gap</li> <li>☐ forest edge □ interior</li> <li>☐ preferred tree species</li> <li>within 10m?</li> </ul>			
				<ul> <li>□ dead/dying leaf cluster</li> <li>□ cavity</li> <li>□ open area/forest gap</li> <li>□ forest edge □ interior</li> <li>□ preferred tree species</li> <li>within 10m?</li> </ul>			
				<ul> <li>□ dead/dying leaf cluster</li> <li>□ cavity</li> <li>□ open area/forest gap</li> <li>□ forest edge □ interior</li> <li>□ preferred tree species</li> <li>within 10m?</li> </ul>			
				<ul> <li>□ dead/dying leaf cluster</li> <li>□ cavity</li> <li>□ open area/forest gap</li> <li>□ forest edge □ interior</li> <li>□ preferred tree species</li> <li>within 10m?</li> </ul>			

# Appendix B – Suitable Maternity Roost Trees for Little Brown Myotis/Northern Myotis

Include all live and dead standing trees >10cm dbh with loose or naturally exfoliating bark, cavities, hollows or cracks.

Project Name:

Site Name:

Survey Date(s):

Observers(s):

ELC Ecosite:			Snag Density (snags/ha):				
Tree #	ee # Tree Species ID dbh Height		Snag attributes	Easting	Northing	Notes	
		(cm)	Class <sup>2</sup>	(check all that apply)	5	5	
				$\Box$ cavity <sup>3</sup> $\Box$ loose bark			
				□ crack □ knot hole			
				□ other snag within 10m?			
				□ Decay Class 1-3?4			
				□ cavity □ loose bark			
				□ crack □ knot hole			
				□ other snag within 10m?			
				Decay Class 1-3?			
				□ cavity □ loose bark			
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				□ cavity □ loose bark □ crack □ knot hole			
				$\Box$ other snag within 10m?			
				Decay Class 1-3?			
L	I			L Decay Class 1-3?			

<sup>&</sup>lt;sup>2</sup> <u>Height Class</u>: 1 = Dominant (above canopy); 2 = Co-dominant (canopy height); 3 = Intermediate (just below canopy); 4 = suppressed (well below canopy)

<sup>&</sup>lt;sup>3</sup> The approx. height of the cavity should be noted. Note that cavities with an entrance near the ground may also be used by bats if they are "chimney-like".

<sup>&</sup>lt;sup>4</sup> Decay Class: 1 = Healthy, live tree; 2 = Declining live tree, part of canopy lost; 3 = Very recently dead, bark intact, branches intact

# 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 <u>ECCC's General Nesting Periods – Avoiding Harm To Migratory Birds</u>. 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:

- o List of potential breeding birds (following breeding bird atlas protocols)
- o Volume estimates of birds (i.e. targets) at a fine scale of altitudinal resolution on a nightly basis;
- o Altitudinal information;
- o Time period monitored (note: monitoring should take place at the same time every day);
- o Weather data;
- o Tidal and lunar cycles (note: shorebird movements increase during bright nights);
- o 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: <u>Permi.Atl@ec.gc.ca</u>). 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: FCR\_Tracker@ec.gc.ca.

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



Date:	November 28, 2024					
То:	Jeremy W. Higgins, Environmental Assessment Officer					
From:	Beth Lewis, Director of Special Places Protection					
Subject:	ABO Rhodena Wind Project, Inverness County - Environmental Assessment Registration					

# Scope of review:

This review focuses on the following mandate: Archaeology and Geology

### List of Documents Reviewed:

EA Document

### **Details of Technical Review (Archaeology):**

The EA document reflects the findings in the HRP ARA Report A2024NS150, submitted to CCTH by Davis MacIntyre & Associates Limited (DM&A). The report confirms that the four historic cellar features and eight areas of elevated archaeological potential can be avoided during development. If avoidance is not feasible, DM&A recommends recording and testing of the cellar features and implementing systematic shovel testing for high and moderate archaeological potential areas. The potential mitigation strategies outlined on page 262 of the report are acceptable. Provided these recommendations are followed, there are no archaeological concerns at this time.

#### Key Considerations: (provide in non-technical language):

# **Details of Technical Review (Geology):**

The EA document describes the bedrock geology correctly, as Carboniferous Horton Group, Creignish Formation. This bedrock type has the potential to contain plant or vertebrate remains that if present, could be significant. If excavation of bedrock is carried out, fossils may be encountered and the Museum or a project palaeontologist should be consulted.

#### Key Considerations:



Subject:	Rhodena Wind Project, Inverness County, Nova Scotia
From:	Environmental Health Consultant, Environmental Health and Food Safety Branch, Sustainability and Applied Science Division.
То:	Jeremy Higgins, Environmental Assessment Officer
Date:	December 6, 2024

#### Scope of review:

This review focuses on the following mandate: Environmental Health

# List of Documents Reviewed:

Rhodena Wind Project EARD Guide to Preparing an EA Registration Document for Wind Power Project in Nova Scotia

# **Details of Technical Review:**

Based upon the review to the documents, there are no additional Environmental Health concerns that lie outside of the current assessment of impact, or the standard terms and conditions which would be incorporated into the operating approval for the site

# **Key Considerations:**

Environmental Health concerns are either addressed within the provided documents, or within the terms and conditions of the operating approval to be issued. There are no additional considerations based upon the information provided for this project."



November 18, 2024

Environmental Assessment Branch, Nova Scotia Environment & Climate Change P.O. Box 442 Halifax, Nova Scotia B3J 2P8

#### EA Feedback for Rhodena Wind and Melvin Lake Wind Project – ABO Energy Canada Ltd.

Dear Minister of Environment and Climate Change, Government of Nova Scotia

On behalf of We'koqma'q First Nation, I wish to express support as part of the public comment period for the following Environmental Assessment Registrations that have been submitted to the Department of Environment and Climate Change:

- Rhodena Wind EA Registration November 6, 2024
- Melvin Lake Wind EA Registration November 28, 2024

We'koqma'q First Nation is one of four Mi'kmaq First Nations partners on both wind projects, together with Eskasoni First Nation, Potlotek First Nation, and Wagmatcook First Nation ("the Communities"). Together with ABO Energy, the Communities were a part of the Green Choice Program submission for both projects as the majority equity shareholder. As partners, all four First Nations have previously expressed support for both projects in writing, including as part of the Green Choice Program submission.

The Communities are strong supporters of renewable energy in the province of Nova Scotia. We support the development, construction, and operation of the two projects. These projects represent valuable economic opportunities for the Communities to participate in the renewable energy industry and support Nova Scotia's transition to a clean and cost-effective electricity system.

ABO Energy has worked with a third-party consultant to complete environmental studies and commenced MEKS studies for both projects. The company has been transparent in assuring benefit to Indigenous communities such as We'koqma'q First Nation and has conducted thorough engagement for both projects. ABO Energy has an Indigenous Inclusion Policy and a Local Economic Development Policy that focuses on maximizing benefits to Indigenous and non-Indigenous peoples in Nova Scotia. These projects will contribute significantly to the local area and provide benefit to Nova Scotia Mi'kmaq.

For these reasons, We'koqma'q First Nation supports the approval of the Environmental Assessment Registration for the Rhodena Wind and Melvin Lake Wind projects. I acknowledge and agree that this letter may be submitted to applicable government authorities to support the advancement of ABO Energy's Melvin Lake and Rhodena Wind Projects.

Sincerely,

CEO, We'koqma'q First Nation

902-756-2337 | wekoqmaqproud.com 150 Reservation Road, P.O. Box 149, Whycocomagh, N.S. BOE 3M0



Our Rights. Our Future.

December 3<sup>nd</sup>, 2024

Jeremy Higgins Environmental Assessment Officer Environmental Assessment Branch Nova Scotia Environment and Climate Change E-mail : jeremy.higgins@novascotia.ca

# **<u>RE:</u>** Consultation with the Mi'kmaq of Nova Scotia on Rhodena Wind Project, Inverness County

Mr. Higgins,

I write to acknowledge receipt of your letter dated November 7<sup>th</sup>, 2024 with respect to the *Terms* of *Reference for a Mi'kmaq- Nova Scotia – Canada Consultation Process* (TOR) as ratified on August 31, 20210, on the above noted project. We wish to proceed with consultation.

Kwilmu'kw Maw-klusuaqn (KMK) would like to acknowledge ABO Energy Canada Ltd. and their commitment to partner with Mi'kmaw Communities to develop, construct, own and operate this proposed project. It is encouraging to see the Mi'kmaq at the forefront of various renewable energy developments happening in Mi'kmaki. (Unceded Land of The Mi'kmaq). These relationships are encouraged as we transition Nova Scotia away from fossil fuels and work towards NetZero. Our office would be pleased to assist in connecting the proponent with local Mi'kmaw Communities to support the building of potential economic partnerships.

This project has potential impacts to Mi'kmaq fishing activity as the Mi'kmaq of Nova Scotia have commercial fishing license within and surrounding the project area. As stated in Section 7.3.2 (Fish and Fish Habitat) and after reviewing the results of the electro fishing, Atlantic Salmon and American Eel are both found within the Study Area. These species are of extreme importance to The Mi'kmaq of Nova Scotia. Our office expects that Nova Scotia Environment and Climate Change (NS-ECC) and the proponent will ensure that these species are not going to be impacted by this proposed project. Should this project be approved, we recommend a Mi'kmaq fisheries communication plan and Mi'kmaq fisheries continue to be, used by Mi'kmaq on journeys by foot because they not only provide a safe and clear route of travel, but provide fresh water, plants to harvest, and a variety of aquatic resources or animals drawn to the water.

Many energy-related projects as of late triggered for Consultation through NS-ECC have not had Archaeological Resources Impact Assessments (ARIA) or Mi'kmaq Ecological Knowledge Studies (MEKS) attached for review. These documents are noticeably provided after the Minister of Environment and Climate Change have approved the project with terms and conditions. It is difficult to access how these projects will impact the Mi'kmaq's Section 35 Rights when all documents are not received when Consultation is triggered. Please provide ARIAs (HRP# A2024NS150 and HRP# A2022NS129); and the MEKS on this project to our office when

75 Treaty Trail Truro, NS B6L 1W3

Tel (902) 843 3880 Fax (902) 843 3882 Toll Free 1 888 803 3880 Email info@mikmaqrights.com www.mikmaqrights.com documents become available. At this time, we cannot comment on archaeological concerns for Mi'kmaw cultural heritage until these documents are reviewed by our team. What we do know is that Unama'ki, in general, is underrepresented in the archaeological record. It is important to note, this does not mean there are no archaeological sites. In fact, the absence of recorded finds may have more to do with a lack of study, rather than a lack of presence.

The Assembly of Nova Scotia Mi'kmaq Chiefs, KMK and the Mi'kmaw Nation in Nova Scotia expects a high level of archaeological investigative diligence and cultural attention when archaeological research is conducted. To this end, we highlight the need for evidence-based decisions rooted in subsurface testing to demonstrate presence, absence, distribution, and characterization of archaeological remnants from L'nu'k ancestors, particularly in the early phases of research such as reconnaissance and survey. This can help demonstrate the depositional histories of specific areas where archaeological and cultural heritage interests will or will not exist. The Maw-lukutijik Saqmaq (Assembly of Nova Scotia Mi'kmaw Chiefs) expects subsurface data, adequate to eliminate concern for presence, protection, and management of Mi'kmaw archaeological and cultural heritage as part of assessment of potential in advance of any development.

Finally, we do not support clearances without subsurface testing. Mi'kmaq archaeological sites have developed since time immemorial and may not be identified from the surface character of the current landscape, one cannot conclusively eliminate potential for Mi'kmaw archaeological heritage, without subsurface testing. It is KMK's expectation that the ARIAs will be sent to our office for review, comment, and Consultation upon completion.

KMK does not represent the communities of Membertou, Millbrook or Sipekne'katik First Nations. We do encourage Consultation with these communities as they may have an interest in this proposed project.

Please contact Patrick Butler, Senior Energy & Mines Advisor, at Kwilmu'kw Maw-klusuaqn with any questions.

Yours in Recognition of Mi'kmaw Rights and Title,

 $\frown$ 

Director of Consultation Kwilmu'kw Maw-klusuaqn

Cc:

Kwilmu'kw Maw-klusuaqn Kwilmu'kw Maw'klusuaqn Hanna Daltrop, Nova Scotia Office of L'nu Affairs Charles Morrison, NSECC ICE Division David Fougere, NSECC ICE Division Cynthia Steele, Nova Scotia Department of Natural Resources and Renewables Beth Lewis, Communities Culture, Tourism and Heritage



#### **Rhodena windmill**

From

@hotmail.com>

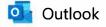
Date Tue 2024-11-12 20:38

To EA@novascotia.ca <EA@novascotia.ca>

[You don't often get email from @hotmail.com. Learn why this is important at

https://aka.ms/LearnAboutSenderIdentification ] \*\* 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 Writing a letter of concern regarding the rhodena windmill operation. Absolutely appalled that this area is being considered.... It will destroy tourism in the area, impact the natural beauty and put the area at risk for wildfires. Please reconsider this project.

Sent from my iPhone



#### **Rhodena Wind Project**

From '

@hotmail.com>

Date Wed 2024-11-13 07:19 To EA@novascotia.ca <EA@novascotia.ca>

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#### \*\* 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 Hello:

This is probably my third or fourth letter submitting, rejecting wind turbine development in Creignish, or anywhere (on land or water) in Inverness County.

From my research, and from countless reports, these turbines DO NOT benefit the province, or the people living here; only the few individuals who have a vested interest in the construction with many times, government-taxpayers money.

These turbines are detrimental to our environment: to our animals, and birds; sound pollution which is showing great issues to peoples' health.

Furthermore, calling them a green initiative is false, but it checks the boxes that make it appear so.

Let's spend our resources on something that works, is less evasive, and probably better. Smart Roads for example.

https://arka360.com/ros/solar-powered-smart-roads-transportation/



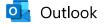
# Smart Roads Powered by Solar: Transforming Transportation

Explore the innovative concept of solar-powered smart roads and their potential to reshape transportation infrastructure for sustainability and efficiency.

arka360.com

Yours sincerely,

Judique.



#### **Proposed Project Comments**

From

@gmail.com>

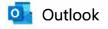
Date Fri 2024-11-15 11:05To ea@novascotia.ca <ea@novascotia.ca >

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Project: rhodena-wind-project Comments: My wife and I moved to Long Point / Craigmore Cape Breton from Ontario to retire and live out our dream and final years by the Ocean chilling out and watching the wildlife. We then found out about these huge wind turbines to be built by Rhodena on the Mountain overlooking our property. The value of our property will obviously be affected by these Wind Turbines and will fall accordingly. I am currently paying over \$5,300 in Property Taxes per year to live by the ocean. This amount should be reduced if the Wind Turbines are built. I fear for the many Bald Eagles and other Wild Life which I believe will be killed by these Wind Turbines when in operation. I am worried about the noise humming coming from these turbines. I am also worried about Lightning Strikes hitting the Turbines. After reading loads of information about these Turbines I believe they can cause Cancer to people within a certain distance of these Turbines. I understand the need for cheaper costs to produce power However I feel the Wind Storms in our area have greatly been overlooked. We get wind gusts in excess of 120 km. Probably much higher on the mountain were the Wind Turbines would be. I feel in such winds these Turbines could become a danger to humans and wildlife especially our beloved Bald Eagles In finishing we are totally against any of these Wind Turbines to be built on the Mountain at the back of our property. If at the time I would have found out that building these Wind Turbines was going to happen I would never have purchased our property in the first place. The local people should decide if they want these monstrosities in their back garden and NOT large companies doing it for cooperate greed. Name: Email:

@gmail.com Address: Point email message: Privacy-Statement: agree x: 59 y: 15 Municipality: Long



Copies of responses to greenchoice application from Rhodena wind abo project

From

@gmail.com>

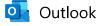
Date Fri 2024-11-15 14:54

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

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Fwd: I have forwarded one of the uranium maps of many available from Nova Scotia showing the proposed area rhodena wind wants to develope.please attach to my letter. Thank you

From

@gmail.com>

Date Fri 2024-11-15 14:59

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

1 attachment (5 MB) ofr-me-2020-001.pdf;

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I have included this map- there are many available!

----- Forwarded message ------

From:

@gmail.com>

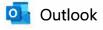
Date: Fri, Nov 15, 2024 at 1:59 PM

Subject: Fwd: I have forwarded one of the uranium maps of many available from Nova Scotia showing the proposed area rhodena wind wants to develope.please attach to my letter. Thank you To: <<u>greenchoice@novascotia.ca</u>>

------ Forwarded message ------From: <u>@gmail.com</u>> Date: Mon, Oct 28, 2024 at 2:21 PM Subject: To: <u>Dgmail.com</u>>

Uranium well map

https://novascotia.ca/natr/meb/data/pubs/20ofr01/ofr me 2020-001.pdf



#### Fwd: Uranium closures on creignish mountain and in the creignish hills

From **S** 

Date Fri 2024-11-15 15:00

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

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Correspondence regarding application of ABO and partners

------ Forwarded message ------From: <u>@gmail.com></u> Date: Fri, Nov 15, 2024 at 2:45 PM Subject: Fwd: Uranium closures on creignish mountain and in the creignish hills To: <greenchoice@novascotia.ca>

Information regarding Rhodena wind proposals and uranium records regulating any soil disruption in high risk or medium risk areas concerned. I personally lived and walked and created trails in that area for twenty five years and can provide testimonials as to eagle and heron regular flyways to nests, bird flyways to the Bra d'or lakes seasonally, bats in caves photographed by Writer photographer Wally Ellison, photos os lichens and mosses in the old growth forest there, regular passage of moose thru my property from the forest there, meetings periodically with grandpa lynx so called because of his attitude and size travelling on the mountain road in his territory, large lynx tracks seen many times in winter by walkers on beach road, fox dens, bear, wildcat sightings, martens, bobcats, red squirrels, crossbill, grosbeaks, purple finch, red tailed hawks, one peregrine falcon nest, red shouldered hawk, many spring sightings of gyrfalcon and snowy owls one year. I think you should realize that this is as precious as the Bornish Hills which all of this area adjoins. It deserves more than an occasional reference to a study here an there- the TargetedGeological Initiative undertaken by the gov. Should make it imperative that these hills and ridges north should be protected from speculators on the wind dollar available from governments and First Nation investment. There is an uranium closure on this mountain they so greedily want to tear up putting in deep cement bases etc. And making business for a nearby guarry whose owners are also involved in many turbine construction. Before we all have to be their bread and butter please recognize what damages you wrought upon our future generations when companies like abo have proven elsewhere in the world that they protect themselves with short term agreements and do not really hold themselves responsible for future damage. Our environment will succumb to their damages for twenty years- defoliation itself changes wild life and flora growth. I expect that because they now have included a partnership with government agencies it appears to all be rubber stamped and we would give up protecting our valuable lifestyle and environment. There are people planning tourism development here sensitive to the needs of sensitive tourists for whom

Fwd: Uranium closures on creignish mountain and in the creignish hills - Higgins, Jeremy W - Outlook

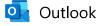
these forests are a godsend and a reminder of what Europe once had and gave up to the kind of development these companies aspire too. On the surface greenchoice is presented as a possible protector for us- I hope you will very very carefully take this responsibility seriously because there are many other areas already damaged that can readily absorb more destruction. These should be left pristine and protected for all to enjoy and study and benefit from in ways that will not do harm.

------ Forwarded message ------From <u>@gmail.com</u>> Date: Tue, Nov 12, 2024 at 2:10 PM Subject: Uranium closures on creignish mountain and in the creignish hills To: The Oran <<u>oran@ns.aliantzinc.ca</u>>

Many years ago I took three prospecting courses from the dept.of mines and energy in stellarton and port hawkesbury. I was aghast when I saw uranium closures on creignish mountain. There was exploration there by a mining company that hired young geology students in the summer. One of these young geologists eventually fell ill and as far as I know his illness was never explained. I always wondered if he could have been exposed to uranium. Now we are faced with the uranium problem again- wells are being tested every six months Government maps show that in general we are a medium risk area with a high risk area on creignish mountain and in the hills. Watersheds for four rivers start there as well and the area is subject to karst- sinkholes. Any suggestion of sinkholes or uranium at all should be red flags to say the least. Why bother at all with putting all this green space and old growth forest and our wells at risk when the entire southwestern part of Inverness county is slated for industrial development eventually according to TGI, the targeted geological initiative, which government knows full well but is not telling us or warning us ahead of time. We just go about our lives with only concerns that we stumble upon sometimes by accident but what about our plans for the future of our health and our families and our forests?

Anybody giving us a heads up? Ever get the feeling that it is always too late to do anything about it by the time we discover the issues? When the foreign company might decide to sell its interests and responsibility for harm? When many years down the road there are health problems as a result of uranium seepage into the aquifers that feed our water supplies? What is swept under the rug now just accumulates for the future doesn't it? Why do we constantly find it all a battle with the government even now being involved? Be careful.

From



#### Fwd: map showing risk. See upper right legend for area indicating risk

ົງgmail.com>

Date Fri 2024-11-15 15:51

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

1 attachment (8 MB) ofm-2009-007-dp.pdf;

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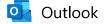
------ Forwarded message ------From: <u>@gmail.com</u>> Date: Sun, Oct 27, 2024 at 7:38 AM Subject: Fwd: To: Plasmatica Webdesign <<u>mail@plasmatica.de</u>>

One of the maps- attention to legend in upper right corner please

------ Forwarded message ------From <u>@gmail.com</u>> Date: Sun, Oct 27, 2024 at 7:33 AM Subject: To: <u>@gmail.com</u>>

Uranium map for creignish area

https://novascotia.ca/natr/meb/data/mg/ofm/pdf/ofm 2009-007 dp.pdf



#### **Rhodena Wind Proposal**

From

@gmail.com>

Date Mon 2024-11-18 22:25

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

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To Whom it May Concern:

I am a resident of Long Point, Inverness County, and I am opposed to the Rhodena Wind Project proposed in the nearby Creignish hills.

My first comment is that wind projects in this province should only sell their energy to the provincial energy grid, not export that energy to Europe or anywhere else foreign. The inefficiencies associated with storing and transporting the energy overseas means the project does not make sense from an environmental standpoint.

Second, the project is still too close to residential areas. ABO's own visual simulations confirm that the turbines will be visible from most vantage points around the area, particularly north of the project around communities like Judique and Long Point. The impacts to property value, tourism, and the visual experience for local residents is still too great, considering how much room is in the Creignish hills. More consideration should be given to local residents who need to live with potential construction results for years. The proponent should relocate its proposed turbine locations to prevent any visibility to the communities below. In particular, the most westerly turbine is too close to the western edge of the hills, making it readily visible, and therefore should be set further east.

Third, I am concerned that this project, if approved, is simply the foot in the door for ABO to propose future expansions. Better that they do the legwork now to relocate turbines so as to adhere to a pattern and standard that is tolerable to local residents.

Thank you for the opportunity for public comment on the Rhodena Wind Project, proposed for construction near Creignish, NS.

Nova Scotia Minister of Environment and staff

I'm writing you in response to the environmental assessment document for the purposed Rhodena wind farm project in Inverness County, by ABO energy.

After reading and studying the document, I believe it to be thorough and current in meeting the needs of this type of project, from construction to operational and decommissioning.

This project on the surrounding environment, from flora and fauna, avian species as well as wildlife, local residence and tourism would be impacted minimally in my opinion. It should go a significant way in creating green electrical energy for the residence of Inverness Co. and Nova Scotia.

As your government is working toward providing green energy, and mitigation of global warming and climate change I feel that this will help with the need to remove ourselves from fossil fuel electrical generating.

It is my desire to see this environmental assessment passed.

Yours sincerely

Past Chair of the Chestico Museum and Historical Society, Wind turbine committee, Comfit Program

And current member of Inverness County Planning and Advisory Committee



Walker's Electrical 53 MacDonald Drive Creignish, Nova Scotia B9A 1C7

November 21, 2024

**RE:** Rhodena Wind and Melvin Lake Wind Project

To Whom It May Concern;

We are an Unionized Electrical Contractor located in close proximity To this proposed wind project and are hopeful it becomes a reality.

This project would mean local construction and electrical workers Can have work in their own community without far distance travel.

Our area needs more projects like this to promote green energy power To reach targets to prevent further climate change in Nova Scotia.

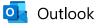
Nova Scotia can reach green energy targets more efficiently when Wind projects are introduced to harness such powerful winds at this Site.

This promotes Spin-off work that can benefit many people.

Local property owners also gain with land agreements that is harnessed On their property.

Please consider this project as we positively support it.

Regards,



### **Opposition to the Rhodena Wind Project (Environmental Assessment Registration Document)**

From

@gmail.com>

Date Fri 2024-11-22 20:29

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

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Environmental Assessment Branch Nova Scotia Department of Environment and Climate Change 1903 Barrington Street, Suite 2085 P.O. Box 442 Halifax, NS B3J 2P8

# Subject: Opposition to the Rhodena Wind Project (Environmental Assessment Registration Document)

To whom it may concern,

On behalf of my community and myself, I am writing to express our opposition to the Rhodena Wind Project as proposed by ABO Energy Canada Ltd. While we strongly support the development of renewable energy, including wind farms within Inverness County when they are well-considered and responsibly executed, this project fails to meet those standards.

Our concerns are rooted in the specifics of this proposal, particularly its location, insufficient community engagement, and the significant risks it poses to our environment, economy, and quality of life.

## Support for Responsible Wind Energy

Our community recognizes the importance of transitioning to clean energy to address climate change. We have supported and will continue to support wind energy projects that are designed with a thoughtful approach to site selection, environmental stewardship, and equitable benefit-sharing. Unfortunately, the Rhodena Wind Project, in its current form and location, does not align with these principles.

## **Community-Centered Concerns**

The Creignish Hills hold cultural, economic, and ecological significance for our community. This proposal threatens to disrupt the area's character by introducing industrial-scale turbines into a landscape that is cherished for its tranquility, natural beauty, and recreational value.

Opposition to the Rhodena Wind Project (Environmental Assessment Registration Document) - Higgins, Jeremy W - Outlook

The project has not adequately addressed key concerns raised by the community during consultations. Declining property values, noise, shadow flicker, and the potential visual intrusion of towering turbines have been downplayed in the Environmental Assessment Registration Document. These are not abstract fears but real issues that could profoundly affect our daily lives and the identity of our region.

## **Risks to Local Economy and Livelihoods**

Tourism and recreation form the backbone of Inverness County's economy, and the Creignish Hills are a vital part of that draw. The installation of six turbines, each exceeding 100 meters in height, risks diminishing the area's appeal to visitors, undermining a significant source of income for our community.

Moreover, the project's economic benefits appear to be overstated. While temporary construction jobs may provide a short-term boost, there is little evidence of sustained, meaningful economic growth or long-term community investment arising from this project.

# **Environmental and Ecological Concerns**

The proposed location sits within sensitive habitats, home to species-at-risk such as migratory birds and bats. Even with mitigation measures, the disruption caused by construction and operation will likely have long-term impacts on these ecosystems.

The project's assessment of cumulative environmental effects is also insufficient. With other wind farms and developments nearby, the combined impact on habitats, watercourses, and the broader landscape needs more rigorous analysis.

# **Governance and Planning Shortfalls**

This project highlights an inequity in how its burdens and benefits are distributed. While private landowners hosting turbines may see financial returns, the broader community bears the environmental, social, and aesthetic costs. This imbalance is deeply unfair and risks undermining public trust in renewable energy initiatives.

Additionally, the lack of detailed decommissioning plans raises concerns about who will bear the responsibility for site restoration once the turbines are no longer operational. Without clear financial assurances, the community could be left with an environmental and financial burden decades from now.

# Advocating for a Better Path

We remain open to and supportive of wind energy developments in our county that are carefully sited and planned with genuine community involvement. To ensure future projects succeed, we encourage the province to:

- Prioritize locations that minimize environmental disruption and avoid sensitive habitats.
- Engage communities early and meaningfully, addressing concerns transparently.
- Explore community-owned or partnership models to equitably share benefits.

# Conclusion

In its current form, the Rhodena Wind Project fails to align with the principles of fairness, sustainability, and community-centered development. While we wholeheartedly support the development of wind energy, this project and location are not suitable. We respectfully urge the Environmental Assessment Branch to reject this proposal and call for a more balanced, responsible approach to renewable energy development in Inverness County.

Thank you for considering our position. I am available to provide further input or participate in discussions to help guide more thoughtful and sustainable solutions.

11/27/24, 1:10 PM

Sincerely,

Concerned Community Member



#### ABO Energy Canada Ltd. Rhodena Wind Farms – Environmental Assessment Registration

From Route 19 Community Association <info@route19.org>

Date Tue 2024-11-26 22:36

To EA@novascotia.ca <EA@novascotia.ca>

You don't often get email from info@route19.org. Learn why this is important

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Environmental Assessment Branch Nova Scotia Department of Environment and Climate Change 1903 Barrington Street, Suite 2085 P.O. Box 442 Halifax, NS B3J 2P8 Via Email - EA@novascotia.ca November 26, 2024

Re: ABO Energy Canada Ltd. (Rhodena Wind Farms) - Environmental Assessment Registration

Firstly let me assure you that I and our Association are not against clean energy and fully appreciate the need to address this situation. The provinces commitment to achieve 80% renewable energy by 2030 is not that far off and we trust in pursuing this goal the ramifications of where these new sources are located has been fully explored.

With all the available land in Nova Scotia surely there are sites available for wind turbines that do not have the negative ramifications that the "Rhodena Wind Farm" has. Such negative ramifications as turbines being erected in a populated community area and destroying the landscape of the heavily travelled Celtic Shores Coastal Trail tourist route. The latter having a crucial impact to our tourism industry.

My family and Inverness County community members are strongly opposed to ABO Energy Canada Ltd. constructing the Rhodena Wind Farm in the proposed Craigmore/Creignish Hills.

I am writing this as both an Inverness County property owner and also one of the founding members of Route 19 Community Association.

The "Route 19 Community Association" is a group of very concerned Inverness County residents/land owners that are striving to preserve the natural heritage, beauty, social, traditional and economic aspects of our community. This includes developments that do not respect or are not compatible with the local natural environment.

The Association presently has 749 signed petitioners opposed to the ABO Energy Canada Limited project being promoted as "Rhodena Wind Farms". This represents construction of 6 massive wind turbines of 200 meters each to be located along the Craigmore/Creignish ridge viewed from Route 19's Celtic Shores Coastal Trail overlooking the gorgeous George's Bay. Constructed along the ridge would see the turbines extending 400 meters in the air; an unwelcome addition to the landscape and an adverse effect on the existing serene landscape.

Webster's Dictionary defines "Environment as:

The conditions or forces that surround and influence something or someone:

- **Natural environment**: The air, water, land, and other factors that affect the life of plants, animals, and people
- **Social and cultural environment**: The conditions that influence a person or community, such as a safe home environment

## <u> Natural Environment – Adverse Effects</u>

- Destruction and/or interruption of a designated known wintering grounds for white tailed deer. Also moose, Canada lynx (at risk) and other mammals
- Impact to migratory birds and other species (little brown bats) at risk
- Impacts to ground and surface water
- Impacts to the environment as a result of fire, collapse and/or leakage of turbines
- There is also the destruction and/or irreparable damage to roads and/or vegetation that will be caused during construction in transporting the weight of these massive turbines added to the size and weight of heavy trucks
- Freezing rain, freezing drizzle and wet snow can all generate ice buildup on turbine rotor blades causing potential for that ice to fall or be thrown from the turbine
- What financial guarantee will be had to insure these turbines will be removed after their life and the site returned to its original state?

## Social and Cultural Environment – Adverse Effects

- The "Rhodena Wind Farm" proposed for the Craigmore/Creignish ridge is along Route 19; part of Celtic Shores Coastal Trail and which is heavily promoted by the Province as a popular tourist destination. Why would we mar this beauty with the erection of 6 wind turbines rising 400 metres in the air and potentially have a negative effect on our tourism?
- With the proposed development involving 19,760 acres for 6 turbines; is ABO's long term plan to add more turbines to this project in future. This would further negatively impact the aesthetic beauty and character of Route 19 and George's Bay.
- Regardless of what we are being told about noise and flickering, we have numerous real life situations posted on our Facebook page that show otherwise. There is also a real possibility of fire should these turbines malfunction or are struck by lightning. We can make these examples available if required.
- There are no economic benefits for our community beyond the initial short term boost during construction
- With the Rhodena Wind Farm leasing private land for their project, this results in a divided community which will have negative ramifications well into the future

## The question is:

Are we "Destroying the Environment to improve the Environment" by erecting wind turbines in close proximity to residents and in visual proximity to Route 19 and the Celtic Shores Coastal Trail tourist destination?

As previously stated we are not opposed to clean energy. However, we implore the Environmental Assessment Branch to reject the "Rhodena Wind Farm project in the proposed Craigmore/Creignish hills location. A more reasonable balanced approach would be for them to propose relocating to an area far removed from residents and not visible from the Route 19 Celtic Shores Coastal Trail.

In closing, we would like to clarify that while the Rhodena Wind Turbine project did have a few public meetings they have not otherwise engaged the community in any meaningful dialogue. They encouraged us to join their Community Liaison Committee however, a community resident did join their Committee but has had no communication from them at all in that regard.

We thank you for your time and consideration and invite you to visit our web site.

https://www.route19.org/

Sincerely,

Concerned Community Member And on behalf of Route 19 Community Association



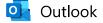
From@gmail.com>DateFri 2024-11-29 11:32ToEnvironment Assessment Web Account <EA@novascotia.ca>

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Project: rhodena-wind-project Comments: Information regarding Rhodena wind proposals and uranium records regulating any soil disruption in high risk or medium risk areas concerned. I personally lived and walked and created trails in that area for twenty five years and can provide testimonials as to eagle and heron regular flyways to nests, bird flyways to the Bra dâ?Tor lakes seasonally, bats in caves photographed by Writer photographer Wally Ellison, photos os lichens and mosses in the old growth forest there, regular passage of moose thru my property from the forest there, meetings periodically with grandpa lynx so called because of his attitude and size travelling on the mountain road in his territory, large lynx tracks seen many times in winter by walkers on beach road, fox dens, bear, wildcat sightings, martens, bobcats, red squirrels, crossbill, grosbeaks, purple finch, red tailed hawks, one peregrine falcon nest, red shouldered hawk, many spring sightings of gyrfalcon and snowy owls one year. I think you should realize that this is as precious as the Bornish Hills which all of this area adjoins. It deserves more than an occasional reference to a study here an there- the TargetedGeological Initiative undertaken by the gov. Should make it imperative that these hills and ridges north should be protected from speculators on the wind dollar available from governments and First Nation investment. There is an uranium closure on this mountain they so greedily want to tear up putting in deep cement bases etc. And making business for a nearby guarry whose owners are also involved in many turbine construction. Before we all have to be their bread and butter please recognize what damages you wrought upon our future generations when companies like abo have proven elsewhere in the world that they protect themselves with short term agreements and do not really hold themselves responsible for future damage. Our environment will succumb to their damages for twenty years- defoliation itself changes wild life and flora growth. I expect that because they now have included a partnership with government agencies it appears to all be rubber stamped and we would give up protecting our valuable lifestyle and environment. There are people planning tourism development here sensitive to the needs of sensitive tourists for whom these forests are a godsend and a reminder of what Europe once had and gave up to the kind of development these companies aspire too. On the surface greenchoice is presented as a possible protector for us- I hope you will very very carefully take this responsibility seriously because there are many other areas already damaged that can readily absorb more destruction. These should be left pristine and protected for all to enjoy and study and benefit from in ways that will not do harm. Name: Email: @gmail.com Address: , Nova Scotia Municipality: Judique

email message: Privacy-Statement: agree x: 69 y: 13



From

⊉gmail.com>

Date Fri 2024-11-29 11:39

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

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Project: rhodena-wind-project Comments: Many years ago I took three prospecting courses from the dept.of mines and energy in stellarton and port hawkesbury. I was aghast when I saw uranium closures on creignish mountain. There was exploration there by a mining company that hired young geology students in the summer. One of these young geologists eventually fell ill and as far as I know his illness was never explained. I always wondered if he could have been exposed to uranium. Now we are faced with the uranium problem again- wells are being tested every six months Government maps show that in general we are a medium risk area with a high risk area on creignish mountain and in the hills. Watersheds for four rivers start there as well and the area is subject to karst- sinkholes. Any suggestion of sinkholes or uranium at all should be red flags to say the least. Why bother at all with putting all this green space and old growth forest and our wells at risk when the entire southwestern part of Inverness county is slated for industrial development eventually according to TGI, the targeted geological initiative, which government knows full well but is not telling us or warning us ahead of time. We just go about our lives with only concerns that we stumble upon sometimes by accident but what about our plans for the future of our health and our families and our forests? Anybody giving us a heads up? Ever get the feeling that it is always too late to do anything about it by the time we discover the issues? When the foreign company might decide to sell its interests and responsibility for harm? When many years down the road there are health problems as a result of uranium seepage into the aguifers that feed our water supplies? What is swept under the rug now just accumulates for the future doesnâ?Tt it? Why do we constantly find it all a battle with the government even now being involved ? Be careful. Name: @amail.com Address: 1 Email: Nova Scotia Municipality: Judique email\_message: Privacy-Statement: agree x: 66 y: 27



#### From

@gmail.com>

Date Fri 2024-11-29 12:02

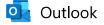
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Project: rhodena-wind-project Comments: Hello, I am a citizen, living in Long Point, very close to the proposed wind turbine Project in Rhodena. For this concrete Wind farm Project - I was diligently studying the complete environmental assessment of the proposed area - I am very concerned about the following in particular. Groundwater risk mapping shows that the Assessment Area is situated in a â?oLow Riskâ? region for arsenic and â?oMedium riskâ? for uranium-containing bedrock Drawings 7.9 and 7.10 GHD 2021 NSNRR, 2020b. Construction activities primarily blasting, as required can result in the disturbance of naturally occurring arsenic and uranium within underlying bedrock. Disturbed arsenic/uranium also the potential to be mobilized through groundwater and subsequently degrade nearby groundwater well quality. page 111..... In addition to water quality, groundwater quantity can potentially be impacted if blasting activities as required alter local hydrogeological flow regimes, resulting in groundwater draining from or flowing towards existing wells. If blasting is required, wells located within 800 m of blasting activities will undergo monitoring per NSECCâ?Ts Procedure for Conducting a Pre- Blast Survey 1993. The requirement for blasting and pre-blast surveys will be confirmed and assessed further during geotechnical investigations. If there is a medium risk of uranium contained in the rocks on that site, I wonder what might happen if disturbed by blasting and/or drilling deep into these rocks. Vibrations might also affect underground water pools feeding wells, further away from the site. Water doesnt stop within an 800m range thats the area where wells might be monitored, but there are none and I am deeply worried about the future quality of our drinking water!? The turbines - if built - will be on top of the hills and water runs naturally down these hills to where guite a few homes with wells are located. There are various brooks - Chisholm Brook, Rough Brook, Lamey Brook, MacMaster Brook 3 of these brooks are a significant habitat for the Wood Turtle - running through the assessment area as well. If our water will be affected...bad luck? No one will be able to change anything about it. Done is done. I am not okay with that! The assessment also states, that there is only a small finding of bats in that area. But isnt it then even more worth it to protect those few! Who decides how many have to show up to make it worthwhile protecting? Every single one counts! It also came as a surprise to me, that the wind turbines arent even manufactured here, that theyre gonna be shipped around half the globe. So theres obviously a lot of money going somewhere, but not into the Canadian economy. And it is not exactly environmental-friendly. The total marine transportation distance associated with getting the wind turbines from Chennai, India to Canso, NS, is 96,000 km page 102 What worries me immensely, too, is the sound, which might be affecting all of our health. Again if the turbines are built on top of the hills, sound rays will be refracted downwards. If that happens, then what...again, then done is done. You can stay and endure it, or leave if you can. I am not okay with that! In conclusion I wanna say that I am absolutely against this project

and I hope that there is a will to find better solutions	than building these s	steelmonsters in our pristine
and extraordinary landscapes! Sincerely	Name:	Email:
ົgmail.com Address	: Municipa	lity: Judique email_message:
Privacy-Statement: agree x: 52 y: 24		



#### **Rhodena Windfarm**

From

@gmail.com>

Date Fri 2024-11-29 12:07

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

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Hello,

I am a citizen, living in Long Point, very close to the proposed wind turbine Project in Rhodena. For this concrete Wind farm Project - I was diligently studying the complete environmental assessment of the proposed area - I am very concerned about the following in particular.

"Groundwater risk mapping shows that the Assessment Area is situated in a "Low Risk" region for arsenic and "Medium risk" for uranium-containing bedrock (Drawings 7.9 and 7.10) (GHD 2021; NSNRR, 2020b). Construction activities (primarily blasting, as required) can result in the disturbance of naturally occurring arsenic and uranium within underlying bedrock. Disturbed arsenic/uranium also the potential to be mobilized through groundwater and subsequently degrade nearby groundwater well quality. (page 111).....

In addition to water quality, groundwater quantity can potentially be impacted if blasting activities (as required) alter local hydrogeological flow regimes, resulting in groundwater draining from or flowing towards existing wells. If blasting is required, wells located within 800 m of blasting activities will undergo monitoring per NSECC's Procedure for Conducting a Pre-Blast Survey (1993). The requirement for blasting and pre-blast surveys will be confirmed and assessed further during geotechnical investigations".

If there is a medium risk of uranium contained in the rocks on that site, I wonder what might happen if disturbed by blasting and/or drilling deep into these rocks. Vibrations might also affect underghround water pools feeding wells, further away from the site.

Water doesn't stop within an 800m range (that's the area where wells might be monitored, but there are none) and I am deeply worried about the future quality of our drinking water!? The turbines - if built - will be on top of the hills and water runs naturally down these hills to where quite a few homes with wells are located.

There are various brooks - Chisholm Brook, Rough Brook, Lamey Brook, Macmaster Brook (3 of these brooks are a significant habitat for the Wood Turtle) - running through the assessment area as well. If our water will be affected...bad luck? No one will be able to change anything about it. Done is done. I am not okay with that!

The assessment also states, that there is only a small finding of bats in that area. But isn't it then even more worth it to protect those few! Who decides how many have to show up to make it worthwhile protecting?

Every single one counts!

It also came as a surprise to me, that the wind turbines aren't even manufactured here, that they're gonna be shipped around half the globe. So there's obviously a lot of money going somewhere, but not into the Canadian economy.

And it is not exactly environmental-friendly.

"The total marine transportation distance associated with getting the wind turbines from Chennai, India to Canso, NS, is 96,000 km" (page 102)

What worries me immensely, too, is the sound, which might be affecting all of our health. Again if the turbines are built on top of the hills, sound rays will be refracted downwards. If that happens, then what...again, then done is done. You can stay and endure it, or leave if you can. I am not okay with that!

In conclusion I wanna say that I am absolutely against this project and I hope that there is a will to find better solutions than building these steelmonsters in our pristine and extraordinary landscapes!

Sincerely



From

@outlook.com>

Date Mon 2024-12-02 13:00

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

#### \*\* 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: rhodena-wind-project Comments: This project should not be allowed to proceed. The impact on the wild life and the environment need to be considered. In addition the impact on the health and welfare of the local residents are at stake. My wife has vertigo and the wind mills trigger symptoms from the blades and light shadows projected. Eagles have finally increased their presence in the area will be killed ny the blades. The beauty of the mountain area is large draw for tourist driving route 19 will be effected. The are much better deep wilderness are areas to support such projects. We strongly oppose this developement. Name: Address: Address: Bunicipality: Judique email\_message: Privacy-Statement: agree x: 91 y: 34



From

@hotmail.com>

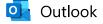
Date Mon 2024-12-02 22:04

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

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

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Project: rhodena-wind-project Comments: I do not agree with wind turbines being erected on the Creignish hills at Creignish NS. This is a residential area Not Industrial. These turbines will reduce the property value, scar this landscape to the point of surrounding land not able to be sold by the land owners. The construction of these turbines will probably have an effect on the well water that comes from the hills. I do believe in green Energy but not turbines in an area that affects residential and tourism. Name: Email: @hotmail.com Address: Long Point N.S. B0E 1P0 Municipality: Long Point email message: Privacy-Statement: agree x: 55 y: 25



From mail@plasmatica.de <mail@plasmatica.de>

Date Tue 2024-12-03 12:13

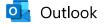
To Environment Assessment Web Account <EA@novascotia.ca>

\*\* 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: rhodena-wind-project Comments: For years I have been following ABOs attempts to build an industrial wind farm on Route 19 in the neighboring Creignish Mountains Rhodena Wind Farm. Im by no means against green energy, but careful consideration should be given to where a wind farm is built and where it is not. The area that ABO has chosen is absolutely the wrong place for a variety of reasons. Route 19 is the gateway to Cape Breton National Park, one of the most important tourist routes in all of Canada. Do we want to welcome tourists from all over the world with a cluster of wind turbines? On the way is a world-famous golf course that attracts top-class visitors every year. The airport at Port Hawkesbury has been developed to welcome high-profile international guests. People from all over the world come to this incredibly beautiful region to enjoy its unspoiled nature. Do we want to denigrate this unique destination with an industrial facility? Tourism is an essential source of income for many families in our region. Guests vacation here to escape the busy cities for a few days. Shouldnt we protect these beautiful destinations instead of destroying them? For a few years now, tourism has begun to flourish in our area in the immediate vicinity of the planned wind farm. In Creignish, a young couple opened a bike rental business this year so that vacationers can enjoy the beautiful views of the mountains and the Atlantic Ocean on the Celtic Shores Coastal Trail. Another tourism project is also currently under construction at Christies Look off: cottages and a small café are to be built. In the immediate vicinity of the wind farm, an eco-tourism project www.celticmountain.ca has been under construction in the Creignish Mountains for several years to show tourists the beauty of the unspoiled old grown forests in the Creignish Mountains. Who would want to go on vacation here when there are wind turbines towering over 200 meters high on the mountains? There are vacation rentals, BBs etc. that all fear for their existence. There are many other reasons that speak against a wind farm in this area: Endangered species, risk of forest fires, threat to wells, close proximity to homes and people, and of course devaluation of real estate prices. The arguments put forward by ABO that property values are not affected are ridiculous, there are already studies that refute this. Anyone can ask themselves: Who would look for a house or land near a wind farm? Nobody, of course. ABO Wind stated in their handout in 2023: ABO Wind made changes to the Project layout after hearing feedback from the community. The nearest wind turbine is now 3400 meters from Route 19. In 2024 they must not have valued the feedback from the community anymore as they reduced the distance of the wind turbines from Route 19 from 3400 meters to 2100 meters. This is not good a cooperation with the community! There is very powerful opposition in our community to the proposed windfarm. The Route 19 Community Association www.route19.org was founded to oppose the planned construction of the wind farm. There are also newspaper articles from citizens of our community who have protested against the construction in local newspapers. A petition has already collected 749 signatures against the wind farm: https://www.change.org/p/say-no-to-theproposed-rhodena-wind-farm There is also a Facebook group with 244 members who are against the wind farm. There are more suitable places in Nova Scotia for such industrial ventures where people will not be affected. ABO should look for other places. Name: Email: mail@plasmatica.de Municipality: Judique email\_message: Privacy-Statement: Address:

agree x: 67 y: 25



From

@live.com>

Date Thu 2024-12-05 11:43

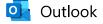
To Environment Assessment Web Account <EA@novascotia.ca>

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

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Project: rhodena-wind-project Comments: I am a concerned citizen from the route 19 area. I lived through what these gastly, destructive, ugly monstrosities did to Ontario farm country. People got sick and had to leave their homes. Their properties became unsellable. The only people benefiting from this project is the company. There have been so many studies citing the many harms these aweful things cause. There is  $\hat{a}$ ?00 $\hat{a}$ ? $\Box$  upside or benefit for the community. And we have the most beautiful wildlife here. Our eagles are a treasure. Adding more of these horrible things will kill more of our birds. I can $\hat{a}$ ?Tt say enough of how against this project and any more like it I am. Please listen to your citizens. We don $\hat{a}$ ?Tt want this!! Name: Email: r @live.com Address: Municipality: Mabou email\_message: Privacy-Statement: agree x: 80 y: 21

about:blank?windowId=SecondaryReadingPane2



#### From

@hotmail.com>

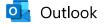
Date Fri 2024-11-29 16:30 To ea@novascotia.ca <ea@novascotia.ca>

#### \*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\*

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

Project: rhodena-wind-project Comments: As a resident of highway 19 I am very concerned about the installation of the Rhodena wind farm. Not only am I against these unsightly turbines on our landscape I am against the impact that they will have on the wildlife for example our white tale deer and their wintering area. I also do not wish to have our community subjected to any possible subsonic noise pollution. Having these turbines in our community will devalue our community and our property. These turbines on our mountain poses risks of forest fires do to malfunctions. These turbines have no place in our community and on our mountain and this wind project must be terminated. Name:

Email:@hotmail.com Address:, Nova ScotiaMunicipality: Long point email\_message: Privacy-Statement: agree x: 90 y: 19



From

) hotmail.com>

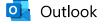
Date Fri 2024-11-29 17:13

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

\*\* 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: rhodena-wind-project Comments: Windfarms are a temporary solution to a greater environmental risk amd need of disposal is a growing concern. We have over 700 signed on a petition against using windmills as a renewable energy source. Name: | Email: @hotmail.com Address: Municipality: Judique email\_message: Privacy-Statement: agree x: 92 y: 13



#### From

@icloud.com>

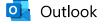
Date Fri 2024-11-29 19:46

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

#### \*\* 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: rhodena-wind-project Comments: Please leave this land alone the residents of long point and craigmore do not want this Name: Email: )@icloud.com Address: Long point Municipality: Cape Breton Island email\_message: Privacy-Statement: agree x: 74 y: 23



From

⊉hotmail.com>

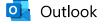
Date Sat 2024-11-30 17:31

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

#### \*\* 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: rhodena-wind-project Comments: Concerned about this projects effect on wildlife, tourismand the possibilities of wildfire in the area. Name:Email@hotmail.comAddress:Municipality: Judique email\_message: Privacy-Statement: agree x: 78 y: 23



From

@gmail.com>

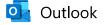
Date Sat 2024-11-30 17:52

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

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

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Project: rhodena-wind-project Comments: I am opposed to these wind turbines being placed along Highway 19 in the Creignish /Long Point area. The amount if energy they will potentially generate is not worth the harm they will cause. It is not fair to those who live in this area. The decrease in their property value is just one concern. The noise pollution that harms the health of many who live near wind turbines is not to be dismissed. The harm to wildlife is not to be ignored either. When they held open meetings for the public to attend the facts were misleading. They reported how much power would be generated by these turbines but the number they gave was if the turbines were 100. We know that in Nova Scotia the max that any turbine has produced is close to 42. There is also the large carbon footprint it will take to even built and erect these things will likely be higher than the carbon emissions they replace. When asked about how they know the effect on the bird population, they said they count the dead birds hit by the turbines. Well that is ridiculous. The turbines will already be in place in order to do that. Tourism is a huge part of Cape Breton economy and to have these turbines destroy the natural beauty along Highway 19 is wrong. There are plenty of industrial area in Nova Scotia where turbines can be built. Name: Email: @gmail.com Address: Municipality: Troy email message: Privacy-Statement: agree x: 58 y: 24



## **Rhodena Windfarm**

From

@yahoo.com>

Date Sun 2024-12-01 21:35

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

#### \*\* 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

To whom it may concern

This email is in regards to Rhodena Wind Project.

I am not in favour of this project and understand the impacts of climate change and the need to go green. However I do not believe industrial winds are the only answer especially not in residential or significantly important tourism areas and local habitats.

With regards to the environmental review it's at minimum a report with little substance and accounts for the lesser impact on land water and the animals that live in the habitat Historically white tail deer, bald eagles and various birds, fish, bats as well as many species threatened, endangered live there. Many of the so called studies were done at a specific time of the year diminishing the impact that would be seen at a different season. The study should have considered all seasons as the project will be functioning 12 months of the year

Many springs, streams and other water ways come directly off the mountain area. They provide water for the habitat and residents and any shift no matter how small could have devestating effects. Oil spill from turbines, cutting off water ways due to roads fill etc will have effects that won't be seen until the damage is done.

They indicate it will be a 30 year project but can't provide information on how the project will be completely decommissioned. They indicate parts will be recycled if possible. That leaves a very wide space for them to walk away from the project leaving NS taxpayers to figure out what to do with the blades and other materials.

There are many documented cases of landfills filling up with parts from decommissioned or faulty windfarms.

They may produce green energy but at what cost to the environment and people who lived near them.

The amount of steel fiberglass, resin, minerals like iron impacts how clean this energy. The amount of oil for the turbines is significant and in conjunction with the other non renewable resources need to build such turbines we are putting more pressure on materials increasing costs and impacting reserves of invaluable resources. They are called precious metals and critical materials for a reason. There are cleaner options out there and many more being developed.

But even if wind farms are what is needed to meet targets the placement of an industrial size project near residential and tourism depended areas does not make sense.

The impact on health has not been studied nearly enough and many of those studies have been done by and for the companies making or involved in seeing a project approved. I recently read an article called "Adverse health effects of industrial wind turbines" on the Canadian Family Physician website (<u>CFP.ca</u>). There is many documented cases of people indicating they have had negative effects from being exposed to the noise of turbines and this can cause a great deal of harm to sleep patterns as well as overall health. Nova Scotia has one of the highest disability rates in Canada and therefore the impact on their health could be felt differently then other areas of the country and this should be considered in reviewing the proposal. As they may spend more time in their homes and be more affected by the windfarm an independent study should be undertaken with a partner who has a disability lens.

A windfarm of this size is industrial and as such should not be anywhere near residents or there property lines. By having set backs near or from the property lines will impact any future development of personal property.

For many their property is their only asset and generational wealth they may have. There is no doubt it will affect property values but more importantly the opportunity to sell at market rates. Would you buy a property with an industrial windfarm located near by when there is mixed messaging on health impacts?

Nova Scotia spends over \$2 Billion in tourism dollars. Route 19 is considered a major tourist destination which will be negatively impacted by the Rhodena Project. It will impact wilderness escapes hiking trails the beautiful landscape but also significantly impact the availability of accommodations. This will happen two fold : people will be less likely to book accommodations near an industrial windfarm due to hearing concerns of noise vibration etc and entrepreneurs will be less likely to invest in vacational rentals like cottages campground etc. This will directly hit the tourism industry. A sector that contributes approx 300 million per year to the NS GDP.

I have concerns with the company being good stewarts as they develop and maintain the project.

They were less then forthright in the beginning naming the project Rhodena when it would impact Creignish Long Point area They did not respond to emails and have provided a very broad overview of concerns minimizing residents fears and concerns.

They have bought community support by giving money to local organizations. This seems very unethical and would make sense if the project was approved as a way to be involved in the community. But to do so before approval is equivalent to vote buying. Is this even allowed? Surely any councillor, county warden, govt staff affiliated with any organization that received funding or promise of future funding would be in a conflict of interest if also involved in this proposal at any stage including support letters, at any vote on the project or review.

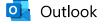
https://outlook.office.com/mail/AAMkAGFmYzVjOWYyLWU0NjQtNGUyMS1hMTM1LTU3N2RiMDA0NmFkMAAuAAAAADZ538u%2BsMbTYYrtGw0y... 2/3

As you can see I have taken great time and effort to share my concerns. As someone whose property has been handed down through generations I understand the impact this project will have. I also have invested significantly in my property and hope it's not for nothing. I see the effects of climate change every time I walk to the ocean I am pro climate change. There are many ways to reach our goal and we don't need to be short sighted to get there. Nova Scotia has much talent and entrepreneurship. Offer residents options to help with the problem instead of handing it over to companies who are only in it for a profit. I can speak for myself in saying I would love to have the opportunity to run a solar photovoltaic (PV) system. If government considered a program to fund small solar panels for individual homes instead of giving massive incentives to a handful of companies they might find people would be all in. Unfortunately it's still out of reach for most under current programs

Sincerely

Long Point NS

Yahoo Mail: Search, Organize, Conquer



#### From

@hotmail.com>

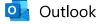
Date Mon 2024-12-02 10:05

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

#### \*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\*

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Project: rhodena-wind-project Comments: I have worked on a wind farm do you know the amount of concrete and rebar to hold up a windmill that will in 20 years or less be in a land fill sooo no to windmills! Ps and sad it has MY name attached Name: @hotmail.com Address: email\_message: Privacy-Statement: agree x: 69 y: 21



From

@icloud.com>

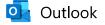
Date Thu 2024-12-05 18:47

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

#### \*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\*

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Project: rhodena-wind-project Comments: As a generational resident of Long Point, Inverness County I am adamantly opposed to ABOâ?Ts current proposal to construct an industrial scale wind farm along the Creignish ridge line:overlooking Route 19,St Georgeâ?Ts Bay and the entry point to Cape Breton Island. Cape Breton is a regional, national and global tourist destination to which this current proposal undermines its cultural, historical and the socioeconomic profile of the community and the region. Such a proposal would not be acceptable to a community and tourist destination such as Peggyâ?Ts Cove and nor should it be here! As I am not opposed to the development of green energy/ wind, but current proposed location is unacceptable and will adversely impact the following 1. Health, safety, wellbeing, and protection of residents from activities that unreasonably disturb the peace and tranquility of the residents and the community 2. Protection, peaceful use and enjoyment of property including the avoidance of activities that can create nuisances to the residents 3. Impacts to the cultural, historical and the socioeconomic profile of the community and the region There are any number of areas within Inverness County to which such developers would have less impact and exponentially more appropriate. For your consideration Name: Email: @icloud.com Address Long Point Judique, NS B0E1P0 Municipality: Long Point email message: Privacy-Statement: agree x: 64 y: 28



From

@live.ca>

Date Thu 2024-12-05 21:09

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

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

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Project: rhodena-wind-project Comments: WE DO NOT NEED A STOP GAP MULTI MILLION DOLLAR â? oPOWERâ? DROJECT TO APPEASE THE COâ?T2 NARRATIVE. Proposed windmills for this location is not a new thing. I do not want mv arandchildren cleaning up this mess in twenty years ! Name: Email: @live.ca Address: Municipality: Judique email\_message: Privacy-Statement: agree x: 75 y: 24

# **Maritime Aboriginal Peoples Council**



#### The Maritime Regional Aboriginal Leaders Intergovernmental Council of Aboriginal Peoples Continuing to Reside on Traditional Ancestral Homelands

## Forums

- Leaders Congress
- MAPC Commissions/Projects
- MAARS Secretariate
- IKANAWTIKET SARA
- MAPC Administration

## MAPC Regional

Administrative Office 172 Truro Heights Road Truro Heights, Nova Scotia B6L 1X1

 Tel:
 902-895-2982

 Fax:
 902-895-3844

 Toll Free:
 1-855-858-7240

 Email:
 frontdesk@mapcorg.ca

Governmental APRO Councils

Native Council of Nova Scotia

P.O. Box 1320 Truro, Nova Scotia B2N 5N2

 Tel:
 902-895-1523

 Fax:
 902-895-0024

 Email:
 chieflaugustine@ncns.ca

#### New Brunswick Aboriginal

Peoples Council 320 St. Mary's Street Fredericton, New Brunswick E3A 2S4

 Tel:
 506-458-8422

 Fax:
 506-451-6130

 Email:
 chief@nbapc.org

#### Native Council of

Prince Edward Island 6 F.J. McAuley Court Charlottetown Prince Edward Island C1A 9M7

 Tel:
 902-892-5314

 Fax:
 902-368-7464

 Email:
 chief@ncpei.com

December 6<sup>th</sup>, 2024

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

## **RE: Rhodena Wind Project**

To Whom It May Concern,

On behalf of the Native Council of Nova Scotia (NCNS), the Maritime Aboriginal Aquatic Resources Secretariate (MAARS) is providing comments to the Environmental Assessment Branch of the Nova Scotia Department of Environment and Climate Change regarding the Environmental Assessment Registration Document (EARD) for the Rhodena Wind Project being undertaken by ABO Energy Canada Ltd.

ABO states that most impacts to wetlands and watercourses will be avoided, with a conservative estimate of roughly 1.2 hectares of wetland habitat being impacted. As well, there were three potential Wetlands of Special Significance (WSS) identified through the field delineations. All three WSS are expected to be avoided during detailed design of the project; however, MAARS would like to be kept apprised of any anticipated changes to this.

The EARD also discusses the presence of blue felt lichen, and the potential for construction to impede upon the 100-metre buffer for this at-risk lichen. While this is expected to be avoided during the design and construction phase, MAARS has concerns given the highly sensitive nature of this species. According to both Environment and Climate Change Canada (ECCC)'s Management Plan for the Blue Felt Lichen (Degelia plumbea) in Canada (2022) and the Committee on the Status for Endangered Wildlife in Canada (COSEWIC)'s Assessment and Status Report on the Blue Felt Lichen (Degelia plumbea) in Canada (2010), blue felt lichen is highly sensitive to changes in habitat, more specifically the reduction in humidity due to deforestation and edge effects. In ECCC's 2022 report, they identified renewable energy, more specifically wind farms, as having the potential to cause extreme effects through the impacts of deforestation and biomass harvesting. ECCC also identified that logging even within a few hundred metres of this lichen can significantly enhance drying effects to which this lichen is particularly susceptible. As well, in ECCC's 2022 report, a 2018

distribution map of blue felt lichen in Cape Breton, Nova Scotia, shows a very limited number of sites with blue felt lichen, and even fewer within the area of this proposed project. Given the highly sensitive nature of this species, and the very limited number of sites surrounding this proposed project, MAARS has concerns over the potential for this development to impede upon the recommended buffer zone which could have the potential to cause significant harm to an at-risk species. MAARS requests that every effort be made to avoid impacts to the 100-metre buffer for blue felt lichen.

In Section 7.4.5.9 Effects Assessment, when discussing the mitigation measures to reduce effects on bats, it is unclear whether the proponent has incorporated mitigation measures during the post-construction/operational phase of this project. These mitigation measures can be critical to ensuring the safety of birds and bats, and particularly those species which are migratory. One of the species highlighted in the EARD was the Hoary Bat, which has recently been assessed by COSEWIC as endangered. One of the key threats identified in COSEWIC's assessment report was wind energy development, classifying wind energy as having a high to very high impact on this species and other migratory bat species, even acknowledging that the current projections of fatality rates by wind farms are likely gross underestimates. COSEWIC identifies turbine curtailment during key periods as an important mitigation measure, with the potential to reduce fatalities by up to 50%. MAARS recommends that the proponent, in collaboration with ECCC's Canadian Wildlife Service, develop mitigation measures and curtailment protocols for migratory bats to ensure the protection of these at-risk species.

Additionally, specific mitigation measures around nesting birds are lacking within the EARD. While the bird survey conducted is thorough, it is important to emphasize the need to educate employees on the nesting and migrating bird species that have been found within and around the study area. While ensuring that employees will be made aware of the need to check areas for activity and nests before undertaking activities which would disturb established surfaces is important, there is an equally important need to ensure employees are educated on what to look for.

Introductory vectors for invasive alien species (IAS) are a significant concern given that IAS are predisposed to establish themselves in recently disturbed areas, due to the localized eradication of natural predators and the removal of resource competition from anthropogenic activity. Activities such as grubbing, that will take place during the expansion of this quarry, are one of such heavy stressors on the environment that will provide an opportunity for IAS to establish themselves. As the environment is stressed, there is an increased potential for IAS to be successfully introduced via vehicles, mobile facilities, on the boots of workers, and other vectors if no preventative measures are taken. MAARS requests ABO develop procedures to mitigate introductory vessels for IAS. This could include mandated practices to clean mobile facilities and vehicles prior to entry of the project site as well as incorporating boot cleaning, to limit the potential introductory vectors for IAS.

Lastly, while we can appreciate that the proponent, ABO, did engage with the NCNS in 2022 regarding this project no further engagement was conducted with the NCNS. Given the timeframe of these projects, the proponent should have re-initiated discussions with the NCNS as the projects were further developed.

We would like to take this opportunity to reiterate that it is important for all proponents of projects to understand that the Off-Reserve Aboriginal Community represented by the NCNS is included within the definition of the word "Indian" of Section 91(24) of the Constitution Act, 1982. The Supreme Court of Canada in a landmark decision in Daniels v. Canada (Indian Affairs and Northern Development), 2016 SCC 12. declared that "the exclusive Legislative Authority of the Parliament of Canada extends to all Indians, and Lands reserved for the Indians" and that the word "Indians" in s.91(24) includes the Métis and

non-Status Indians<sup>1</sup>. Since 2004, in multiple decisions passed by the Supreme Court of Canada: *Haida* Nation<sup>2</sup>, Taku River Tlingit First Nation<sup>3</sup>, and Mikisew Cree First Nation<sup>4</sup>, has established that,

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

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

We assert that the Off-Reserve Aboriginal Communities, as 91(24) Indians, are undeniably heirs to Treaty Rights and beneficiaries of Aboriginal Rights as substantiated by Canada's own Supreme Court jurisprudence. As such, there is absolutely an obligation to consult with the Off-Reserve Community through their elected representative body of the NCNS. The Crown's duty is to consult with all Indians, not only the Indian Act Bands.

For contextual purposes, for over forty years, the three Native Council partners of the Maritime Aboriginal People's Council (MAPC) have continued to be the Aboriginal Peoples Representative Organizations representing and advocating for Rights and issues the the of Mi 'kmaq/Wolastoqivik/Peskotomuhkati/Section 91 (24) Indians, both Status and non-Status, continuing to reside on their unceded Traditional Ancestral Homelands. In the early 1970s, the communities recognized the need for representation and advocacy for the Rights and Interests of the off-Reserve community of Aboriginal Peoples, "the forgotten Indian". Women and men self-organized themselves to be the "voice to the councils of government" for tens of thousands of community members left unrepresented by Indian Act-created Band Councils and Chiefs. Based on the Aboriginal Identity question, Statistics Canada (2021 Census - 25% sample) enumerate 25,415 off-Reserve Aboriginal Persons in New Brunswick, 42,580 in Nova Scotia, and 2,865 in Prince Edward Island.

Each Native Council in their respective province asserts Treaty Rights, Aboriginal Rights, with Interest in Other Rights confirmed in court decisions, recognized as existing Aboriginal and Treaty Rights of the Aboriginal Peoples of Canada in Part II of the Constitution Act of Canada, 1982. Each Native Council has established and maintains Natural Harvesting Regimes, and each have a co-management arrangement with DFO for Food, Social, and Ceremonial use of aquatic species, through the: Najiwsgetaq Nomehs (NBAPC), the Netukulimkewe'l Commission (NCNS), and the Kelewatl Commission (NCPEI).

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

<sup>&</sup>lt;sup>1</sup> Daniels v. Canada (Indian Affairs and Northern Development), 2016 SCC 12, [2016] 1 S.C.R. 99

<sup>&</sup>lt;sup>2</sup> Haida Nation v. British Columbia (Minister of Forests), (2004), 2 S.C.R. 511

<sup>&</sup>lt;sup>3</sup> Taku River Tlingit First Nation v. British Columbia (Project Assessment Director), (2004), 3 S.C.R. 550

<sup>&</sup>lt;sup>4</sup> Mikisew Cree First Nations v. Canada (Minister of Canadian Heritage), (2005), 3 S.C.R. 388

The Native Council of Nova Scotia (NCNS) Community of Off-Reserve Status and Non-Status Indians/Mi'kmaq/Aboriginal Peoples supports projects, works, activities and undertakings which do not significantly alter, destroy, impact, or affect the sustainable natural life ecosystems or natural eco-scapes formed as hills, mountains, wetlands, meadows, woodlands, shores, beaches, coasts, brooks, streams, rivers, lakes, bays, inland waters, and the near-shore, mid-shore and off-shore waters, to list a few, with their multitude of in-situ biodiversity. Our NCNS Community has continued to access and use the natural life within those ecosystems and eco-scapes where the equitable sharing of benefits arising from projects and undertakings serve a beneficial purpose towards progress in general and demonstrate the sustainable use of the natural wealth of Mother Earth, with respect for the Constitutional Treaty Rights, Aboriginal Rights, and Other Rights of the Native Council of Nova Scotia Community continuing throughout our Traditional Ancestral Homeland in the part of Mi'kma'ki now known as Nova Scotia.

We would appreciate an opportunity to engage on the Rhodena Wind Project undertaking directly with the proponent, ABO. We look forward to further dialogue as we continue to advocate for the rights of Off-Reserve Status and Section 91(24) Indians/Mi'kmaq/Aboriginal Peoples of Nova Scotia. To continue to represent the interests and needs of the off-Reserve Aboriginal Community in Nova Scotia, we would like to request the opportunity to participate in early engagement in future Environmental Assessment Reviews.

Advancing Aboriginal Fisheries and Oceans Entities Best Practices, Management, and Decision-making

Habitat Impact Advisor, MAARS

Executive Director, MAARS & MAPC Projects

CC:

Chief & President, NCNS Netukulimkewe'l Commission, NCNS