

## **PROJECT INFORMATION**

The Upper Afton Wind Project (the Project) is proposed by Upper Afton Wind Ltd., a partnership between EverWind NS Holdings Ltd. and Membertou Development Corporation. The Project is part of EverWind's broader green energy strategy to supply renewable electricity for the production of Certified Green hydrogen and ammonia in Nova Scotia.

The Project will include up to 28 wind turbine locations, with a maximum output capacity of up to 176 megawatts (MW). The turbine selected for assessment is the Goldwind GWH182-8.0. It is anticipated that 22 turbines will be constructed, and six turbine locations are considered alternates. Project infrastructure includes turbines, a road network, electrical collector lines, a substation and switching station, temporary laydown yards, and an operations and maintenance building.

The Project will be located on Crown, municipal, and private land in Antigonish and Guysborough Counties, near the communities of Upper Afton, Merland, New France, Upper Big Tracadie, South Merland, and Rear Monastery (Drawing 1). The approximate center of the Project is UTM coordinates (zone 20N) 45.550643, -61.661264.

The Project has been carefully designed and went through multiple layout iterations to reduce potential effects on the environment. The final design maintains compliance with regulated setbacks and separation distances and prioritizes the use of existing roads, with 77% of access roads following previously established roads. The layout has also been refined based on input received from members of the public and the Mi'kmaq of Nova Scotia, and this feedback has been incorporated where feasible to further reduce potential impacts and improve the Project.

## **PROJECT CONSTRUCTION, OPERATION, AND DECOMMISSIONING**

If approved, construction is expected to begin with vegetation removal as early as late 2026, with commissioning in 2029. The Project will operate for 35+ years, after which turbines will be removed and the land restored.

Construction, lasting approximately 3 years, will involve vegetation removal, access road upgrades, new road construction, turbine pad and foundation construction, collector line installation, and turbine assembly. During operations (35 years), the turbines will generate clean electricity and require regular maintenance. Maintenance technicians will access turbines via Project roads year-round. Vegetation management, signage, winter road maintenance, and periodic major component replacements (such as blades or nacelle parts) will occur. Decommissioning will involve dismantling turbines, removing foundations to at least 1 m below grade, decommissioning electrical infrastructure, and restoring land through natural revegetation. Decommissioning is expected to last 1.5 years after operations are ceased.

## PROJECT BENEFITS

The Project supports Nova Scotia's Clean Power Plan, which aims for 80% renewable electricity by 2030 and a 90% reduction in greenhouse gas emissions from electricity compared to 2005 levels. The Project addresses these targets by developing new industrial activity in the renewable energy sector without adding to the province's greenhouse gases (GHG) emissions. This will help the province meet its climate goals while creating jobs and building its export economy. Although GHGs will be released during the transportation and construction of Project components, Project emissions will be offset in less than one year of operations through the production of renewable energy.

The Project will also create local jobs, generate tax revenue, and strengthen energy security by providing a stable, fuel-free power source. The Proponent is committed to maximizing local economic benefits, including hosting job fairs and using local contractors where possible. The Project is expected to create 200 to 250 construction jobs and approximately eight long-term operations jobs. Community benefits include a Community Fund, support for training and youth education through a Bursary Fund, and Indigenous economic participation through the Membertou Development Corporation.

## MI'KMAQ OF NOVA SCOTIA

The Project is located within Mi'kma'ki, the traditional territory of the Mi'kmaq of Nova Scotia. The nearest Mi'kmaq community to the Project is Paq'tnkek First Nation. The Proponent has engaged with Mi'kmaq communities and organizations, including Paq'tnkek First Nation, Pictou Landing First Nation, Millbrook First Nation, Potlotek First Nation, Sipekne'katik First Nation, the Kwilmu'kw Maw-klusuaqn Negotiation Office, and the Nova Scotia Office of L'nu Affairs.

An Archaeological Resource Impact Assessment has been completed for the Project, and a Mi'kmaq Ecological Knowledge Study is underway to document traditional land use and species of cultural importance. The Proponent is committed to development and implementation of a Mi'kmaq Communications Plan and to continued engagement with the Mi'kmaq of Nova Scotia for the life of the Project.

## POTENTIAL EFFECTS ON THE ENVIRONMENT

### Air Quality, Sound, and Shadow Flicker

Potential effects: Construction activities will generate dust and exhaust emissions, but these will be temporary and controlled through measures like wetting roads and limiting equipment idling. Modeling confirms that, during operations, turbines will meet noise limits of  $\leq 40$  dBA and  $\leq 30$  hours per year of shadow flicker at receptors.

Mitigations: The Project will develop and implement a Complaint Resolution Plan, which will consider complaints related to sound or shadow flicker and outline a process to investigate

complaints. The Proponent will conduct additional modelling prior to construction if there are changes to the layout, turbine model, or specifications to ensure compliance.

### **Geology and Groundwater**

Potential effects: Geological features and groundwater quality and quantity are not likely to be impacted.

Mitigations: New ground disturbance for the Project will be minimized to the extent practical. An Erosion and Sediment Control Plan will be developed to address soil erosion and sediment runoff. If blasting is required for construction, a Blasting Management Plan will be developed and groundwater wells within 800 m will undergo a pre-blast survey.

### **Surface Water, Fish, and Fish Habitat**

Potential effects: There will be a small loss or alteration to fish habitat to facilitate the installation of approximately 55 watercourse crossings, including upgrades to existing crossings and installations of new crossing structures (e.g., culverts).

Mitigations: Vegetated buffers around watercourses will be maintained where possible, and the Proponent will obtain all necessary permits prior to alterations. A Surface Water Management Plan, Erosion and Sediment Control Plan, and Contingency Plan will be developed and implemented.

### **Wetlands**

Potential effects: There is anticipated to be partial or total alteration of wetlands to support Project construction, including upgrading or installing access roads and turbine pads.

Mitigations: Impacts to wetlands have been avoided and minimized, where possible. The Proponent will minimize wetland impacts and maintain buffers where possible during detailed design. Where avoidance is not feasible, the Proponent will obtain all necessary permits prior to wetland alteration, which includes a requirement to compensate for lost wetland habitat and functions.

### **Habitat, Plants, and Lichens**

Potential effects: The Project Footprint covers approximately 596 hectares, including areas previously cleared for existing roads and past forestry activities. Only a portion of this total represents new permanent clearing. By assessing and improving the Project design, including relocating infrastructure, the Project Footprint minimizes impacts to species at risk, species of conservation interest, and sensitive habitats, including old growth. The Project avoids all direct impacts to identified species with legislative protection under either the federal *Species at Risk Act* or the provincial *Endangered Species Act*.

Mitigations: Habitat loss and impacts to rare plants and lichens have been avoided through layout revisions and minimized by using pre-existing roads and previously disturbed areas (i.e., clear cuts) to the extent possible.

### **Wildlife**

Potential effects: There will be loss and fragmentation of wildlife habitat and vegetation, and sensory disturbance to fauna. Sensory disturbance to wildlife is most likely to occur during the construction phase of the Project (estimated to last 36 months).

Mitigations: Impacts to wildlife habitat will be reduced by limiting the overall area to be developed and by using existing access and disturbed areas to the extent practicable. Project infrastructure has been micro-sited to limit disturbance to important habitat features. Operational design strategies will be implemented to reduce sensory disturbance to wildlife. The Proponent will continue to monitor wildlife during Project operations and will develop and implement a Terrestrial Habitat and Wildlife Management Plan.

### **Birds and Bats**

Potential effects: There will be a loss and fragmentation of habitat and a sensory disturbance to birds and bats during construction. During operations, the Project has the potential to cause injury/mortality from collision with turbine blades.

Mitigations: Impacts to habitat were minimized by using pre-existing roads and previously disturbed areas (i.e., clear cuts) to the extent possible. The Proponent will develop and implement a Terrestrial Habitat and Wildlife Management Plan and is committed to conducting a second year of radar and acoustic monitoring prior to operations and post-construction mortality monitoring for birds and bats, including adaptive management.

### **Socioeconomic Environment**

Potential effects: The Project is expected to benefit the local and regional economy. Land use and value are not anticipated to change. No significant impacts on recreation and tourism are predicted.

Mitigations: A Community Liaison Committee will be established to maintain communication with landowners and nearby community members and coordinate the use of the Community Fund. The Proponent is not proposing to restrict site access via gates; however, the substation will be fenced and limited temporary restrictions may be required during active construction for the safety of the public.

## **Archaeological Resources**

Potential effects: Areas of potential archaeological significance were found within the Study Area and are expected to be avoided by the Project through step-by-step Project planning.

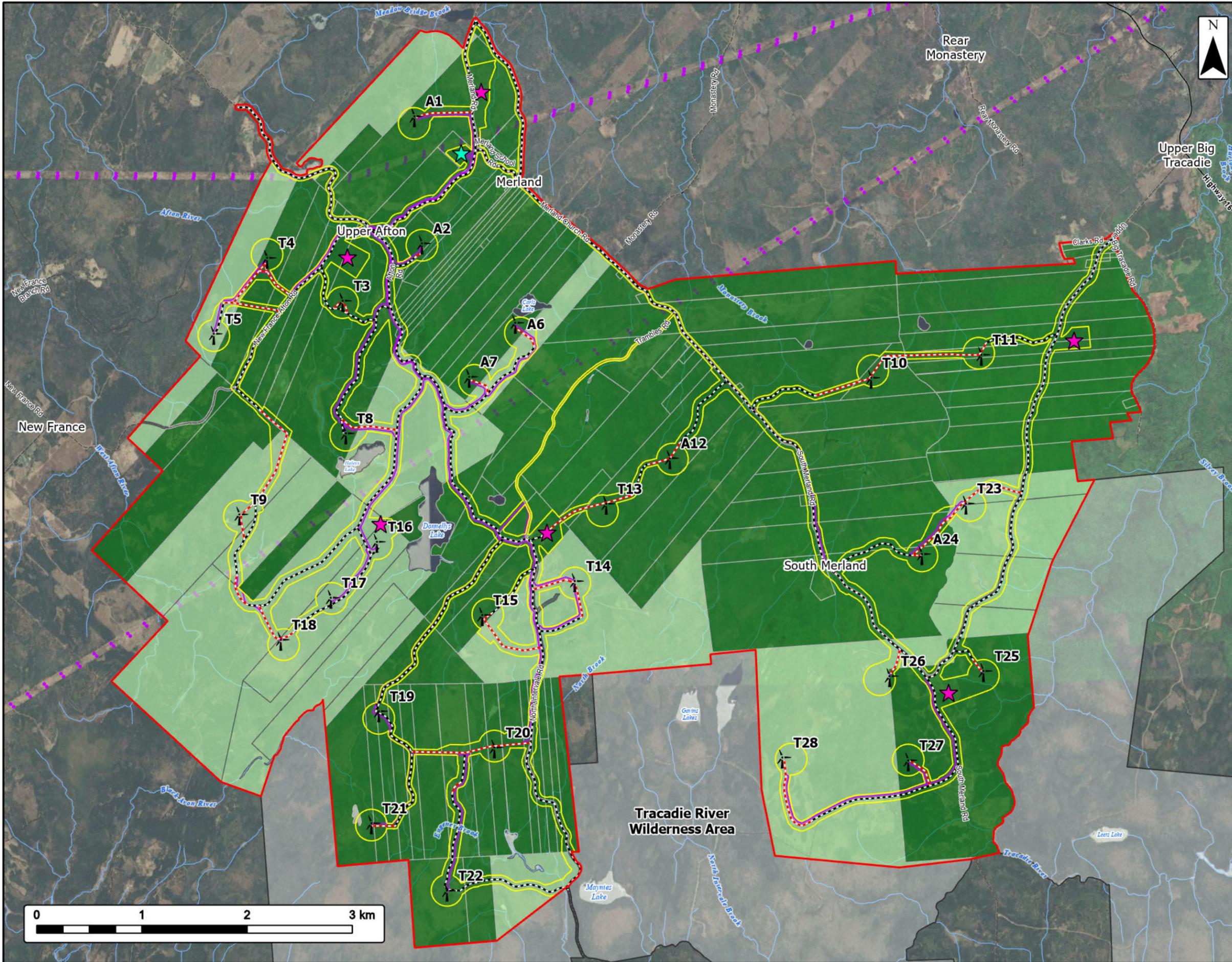
Mitigations:

If avoidance of areas of potential archaeological significance is not possible, the Proponent will contract a qualified archaeologist to conduct shovel testing in areas of elevated potential, in accordance with Nova Scotia Communities, Culture, Tourism and Heritage. Prior to construction, the Proponent will conduct an archaeological assessment in any areas not previously assessed where ground disturbance is required. The Proponent will also develop a chance find procedure related to the potential unexpected discovery of archaeological items or sites, or human remains, during construction.

## **CONCLUSION**

The Upper Afton Wind Project will deliver long term environmental and economic benefits by generating clean energy for Nova Scotia's growing green hydrogen sector and helping the Province meet its climate targets. Although some impacts to wetlands, wildlife, and habitat will occur, these are minimized through evaluation and improvement to the design, adherence to provincial requirements, and comprehensive mitigation.

All assessed effects on valued components are predicted to be not significant, and the Project provides a positive reduction in greenhouse gas emissions, supporting Nova Scotia's transition to a low carbon energy future.



# Upper Afton Wind Project

Site Overview



Study Area		<b>Transportation</b>	
Assessment Area		Road	
Proposed Turbine Location *		Unpaved Road	
Laydown Area		<b>Utilities (Line)</b>	
Substation Location		Existing Transmission Lines	
Existing Road		<b>Water Features</b>	
Proposed New Road		Mapped Watercourses	
Collector Line			
Crown Land			
Private Land			
Tracadie River Wilderness Area			

\* Turbines labelled as A# are considered alternates



Coordinate System: NAD 1983 CSRS UTM Zone 20N  
 Sources: © OpenStreetMap (and) contributors, CC-BY-SA, GeoNOVA, SNSIS, NSNRR, ACCDC, IBA Canada, CNWI, HERE, Garmin, USGS

Date:	2026-02-25	Project #:	24-11145
Scale:	1:35,000	Drawing #:	<b>2.1</b>
Drawn By:	K. Wallace		
Checked By:	M. Smith		

