NORTH BEAVER BANK

COMMUNITY WIND PROJECT

ENVIRONMENTAL ASSESSMENT REGISTRATION DOCUMENT

Proponent
Scotian Windfields Inc.
and
Scotian Wind Inc.
and
WEB Wind Energy North America Inc.

Document Prepared By:
Strum Consulting

October 2013

EXECUTIVE SUMMARY

Scotian WindFields, Scotian Wind Inc., and WEB Wind Energy North America Inc. have proposed to develop an 8.0 MW wind project in the community of North Beaver Bank, Nova Scotia. The proposed project location is approximately 14 km north of Sackville, Nova Scotia in the Halifax Regional Municipality. The Project site is centred at 44º54'57"N, 63º40'47"W on privately owned land.

The North Beaver Bank Community Wind Project is proposed under the provincial Community Feed-In-Tariff program, an incentive-based program introduced by the Nova Scotia Department of Energy, for which municipalities, First Nations, cooperatives, local non-profits, and small businesses, operating through Community Economic Development Investment Funds, are eligible to apply.

The Project is considered a Class 1 undertaking under the Nova Scotia Environmental Assessment Regulations and as such, requires a registered Environmental Assessment as identified under Schedule A of the Regulations. The Environmental Assessment and the registration document have been completed according to the methodologies and requirements outlined in the document "A Proponent's Guide to Wind Power Projects: Guide for Preparing an Environmental Assessment Registration Document", as well as accepted best practices for conducting environmental assessments. As the Project consists of four turbines, it is considered a small project. Based on the known existence of four bird species ranked 'red' by the Nova Scotia Department of Natural Resources and the presence of a bat hibernaculum less than 25 km from the Project site, the Project is classified as having a 'Very High' potential sensitivity. As such, the Project is determined to be a Category 4.

A number of environmental components were evaluated for this assessment. Based on field data and associated research, mitigation strategies and best management practices were identified to avoid or mitigate potential effects of the Project for the majority of the components. Following the preliminary assessment, the components identified for further assessment were: avifauna, bats, and species of conservation concern. The effects assessment for these components determined that residual effects are expected to be not significant. Cumulative effects were also considered to be not significant.

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ACCDC	Atlantic Canada Conservation Data Centre
ARD	Acid Rock Drainage
ARIA	Archaeological Resource Impact Assessment
ATV	All-terrain Vehicle
AQHI	Air Quality Health Index
BMP	Best Management Practice
CanWEA	Canadian Wind Energy Association
CEDIF	Community Economic Development Investment Funds
CEAA	*Canadian Environmental Assessment Act*
COMFIT	Community Feed-In-Tariff
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CWS	Canadian Wildlife Service
CWFI	Community Wind Farms Inc.
dBA	Decibel
DEM	Digital Elevation Model
DFO	Fisheries and Oceans Canada
DND	Department of National Defense
EA	Environmental Assessment
EC	Environment Canada
EMI	Electromagnetic Interference
EMF	Electromagnetic Field
EPP	Environmental Protection Plan
ESCP	Erosion and Sediment Control Plan
GHG	Greenhouse Gas
HRM	Halifax Regional Municipality
IBAs	Important Bird Areas
IBoF	Inner Bay of Fundy
KMKNO	Kwilmu'kw Maw-klusuaqn Negotiation Office
LWT	Large Scale Wind Turbine
MBBA	Maritime Breeding Bird Atlas
MBCA	*Migratory Birds Convention Act*
MEKS	Mi'kmaq Ecological Knowledge Study
MLA	Member of Legislative Assembly
MW	Megawatt
NRC	National Research Council
NRCan	Natural Resources Canada
NSDE	Nova Scotia Department of Energy
NSE	Nova Scotia Environment
NS *EA*	Nova Scotia *Environment Act*
NS *ESA*	Nova Scotia *Endangered Species Act*
NSPI	Nova Scotia Power Inc.
NSTIR	Nova Scotia Department of Transportation and Infrastructure Renewal
PID	Property Identification Number
RABC	Radio Advisory Board of Canada
RCMP	Royal Canadian Mounted Police
SARA	*Species at Risk Act*
SOCI	Species of Conservation Interest
SWFI	Scotian WindFields Inc.
SWI	Scotian Wind Inc.
TAFL	Technical and Administrative Frequency Lists
UTM	Universal Transverse Mercator
VEC	Valued Ecosystem Component
WAM	Wet Areas Mapping

WEB AG	WEB Windenergie AG
WEB N.A.	WEB Wind Energy North America Inc.
WHMIS	Workplace Hazardous Materials Information System

1.0 PROJECT INFORMATION

1.1 Project Introduction

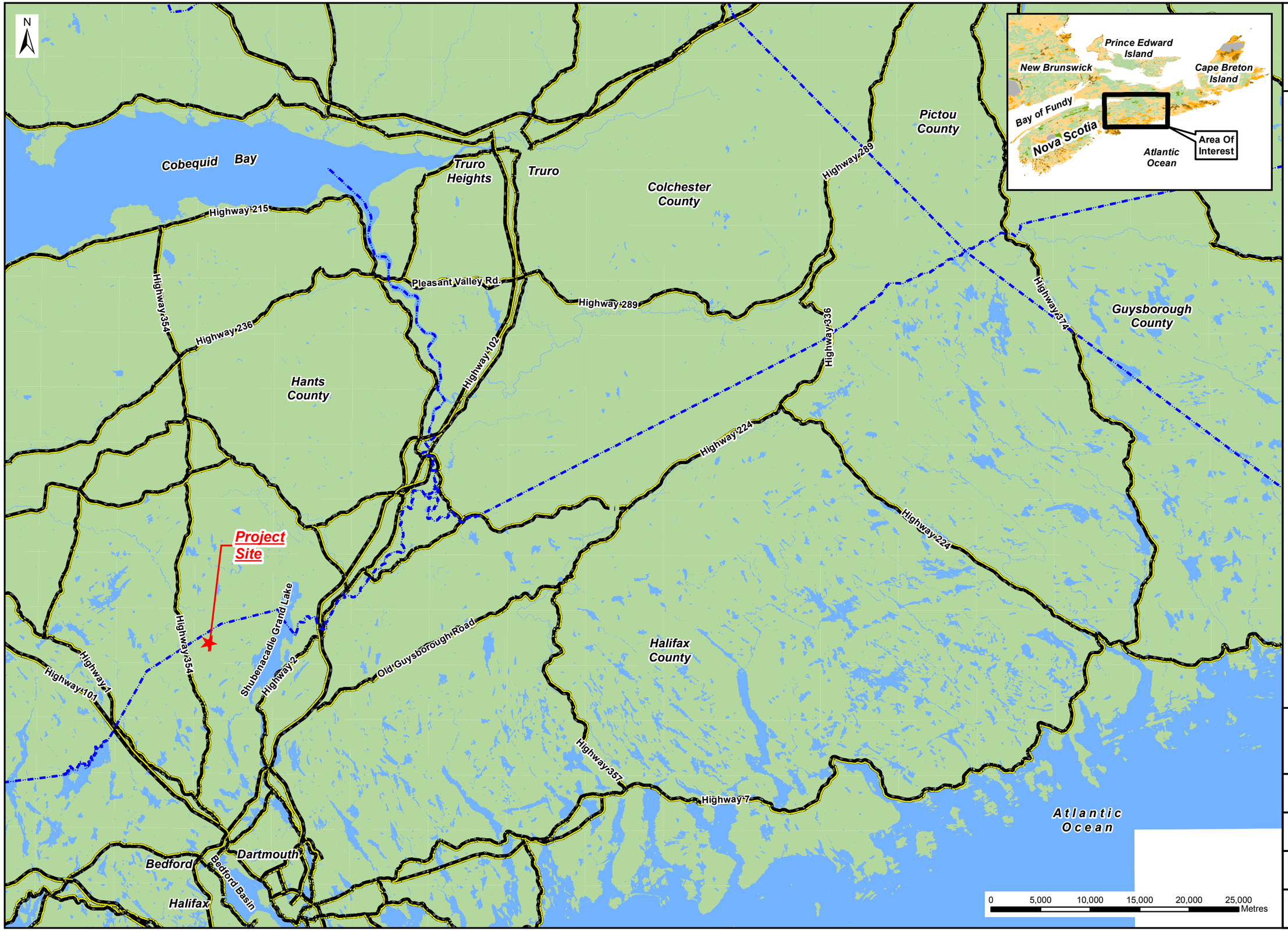
Scotian WindFields Inc. (SWFI), Scotian Wind Inc. (SWI), and WEB Wind Energy North America Inc. (WEB N.A.) have proposed to develop an 8.0 MW wind project in the community of North Beaver Bank, Nova Scotia. The North Beaver Bank Community Wind Project (the Project) has been developed in support of Nova Scotia "Renewable Electricity Plan: A Path to Good Jobs, Stable Prices and a Cleaner Environment" (Renewable Electricity Plan) (NSDE 2010). This strategic plan is designed to decrease the province's dependence on carbon-based energy sources (fossil fuels) and a move towards greener, more affordable and more reliable sources of electricity. Nova Scotia recognizes the numerous benefits of supporting the development of renewable energy within the province, as currently 82% of the province's energy comes from non-renewable sources, mostly sourced from outside of the province (NSPI 2013). Dependence on fossil fuels increases the vulnerability of Nova Scotians to rising international energy prices, weakens energy security, and takes valuable revenue out of the province (NSDE 2010). Negative impacts to human health, particularly in developing countries, and the environment, mainly in the form of climate change, are among the widely cited problems associated with fossil fuel consumption around the world.

In the most recent assessment report, "Climate Change 2007 - Impacts, Adaptation and Vulnerability", the United Nations Intergovernmental Panel on Climate Change provided a detailed synopsis of the impacts associated with climate change on both global and regional scales. Evidence from all continents indicates that many biological systems and habitats are currently being affected by regional climate change. Ecological changes include: changes to the thermal dynamics and quality of aquatic habitats; shifts in migratory timing and ranges of fauna and flora; changes in fish abundance; and increased risk of extinction and loss of forest habitat (IPCC 2007).

Canadian climate experts acknowledge that the debate has largely evolved from questions about the reality and causes of climate change, to what actions can be taken to adapt to the realities of a changing climate. As the second most important and fastest growing (along with solar) renewable energy source in Canada (NRCan 2009), wind energy is a critical component of Canada's renewable energy strategy. Wind energy is emission-free, with every megawatt of wind energy generated reducing greenhouse gas emissions by as much as 2,500 tons per year, and improving air quality (NSDE 2009).

The goal of Nova Scotia's Renewable Electricity Plan is to gradually transition the province to local, renewable energy sources, including wind, tidal and solar technologies. To reach this objective, the province has set a commitment of 25% renewable energy by 2015, and 40% by 2020 (NSDE 2010). The plan encourages the participation of community-based organizations in this opportunity, through the incorporation of the community-based feed-in tariff (COMFIT) program. Numerous benefits can be expected from the transition to renewable energy, and may include:

- Long term stability in energy prices;
- Long term security in locally-sourced energy supply, and decreased dependence on international markets;
- Creation of jobs and economic opportunities throughout the province;



Notes:

1. Reference: Digital Topographic Mapping By Nova Scotia Geomatics Centre.
2. Projection: NAD83(CSRS), UTM Zone 20 North.

Legend:

- County Boundary
- Major Roads and Highways
- Water Bodies

Site Location

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Checked By: M. Henley	

- Community investment and economic return;
- Protection of human health and the environment;
- Retaining revenue within the province; and
- Educational opportunities for youth and the broader community about renewable energy technology, its benefits, and the role played in Nova Scotia's energy future.

As part of this overall strategy, the Project will contribute to meeting Nova Scotia's renewable energy goals by producing enough green energy to provide 2,600 NS homes with stable, locally-produced renewable energy. The Project is committed to sharing economic opportunities with the local community, throughout the development and life-span of the Project via job creation, tax revenue, and the creation of a community dividend. No public funding is required for this Project.

1.2 Project Summary

This section of the Environmental Assessment (EA) report provides a summary of the Project, description of the proponent, and regulatory requirements. The structure of the overall document and the investigators and authors involved are also provided.

Table 1.1: Project Summary

General Project Information	SWFI, SWI, and WEB N.A. intend to construct and operate an 8 MW wind project (the Project) at a site in the community of North Beaver Bank, Nova Scotia.
Project Name	North Beaver Bank Community Wind Project
Proponent Name	SWFI, SWI AND WEB N.A.
Proponent Contact Information	Scotian WindFields Inc. and Scotian Wind Inc. Dan Roscoe 108F Trider Crescent Dartmouth, NS B3B 1R6 Phone: 902.468.3132 Fax: 902.468.3002 Email: droscoe@scotianwindfields.ca WEB Wind Energy North America Inc. Detlef Krollpfeiffer 480 University Ave, Suite 1500 Toronto, ON M5G 1V2 Phone: 647.367.0930 Email: dk@webwindenergy.com
Project Location	• The Project site is located in the community of North Beaver Bank, approximately 14 km north of Sackville, Nova Scotia in the Halifax Regional Municipality (HRM) (Drawing 1.1). • The approximate center of the Project site is located at 44º54'57"N, 63º40'47"W. • Project lands include Property Identification Numbers (PID) 41040684, 41279779, 00469890, and a portion of 00552786. Access and power easements will be acquired to cross additional parcels as required.
Landowner(s)	Barrett Lumber
Closest distance from a turbine to a structure	>1,750 m
Expected rated capacity of proposed project in MW	8 MW

1.3 Proponent Description

SWFI is a Nova Scotia based, owned and operated company whose primary mandate is to develop investment opportunities in renewable energy from funds raised within Nova Scotia. Approximately 36% of the shares in SWFI are held by community Wind Fields, community-owned investment funds covering the entire geographical region of the province. These Community Economic Development Investment Funds (CEDIF) provide the opportunity for Nova Scotia citizens to invest in and provide renewable energy to the province.

WEB N.A. is a wholly owned subsidiary of WEB Windenergie AG (WEB AG). WEB AG is a publicly traded Austrian-based renewable energy company with experience in complete life cycle wind energy development and operation. The company has been involved in planning, developing, financing, constructing and operating renewable energy projects in Austria, Germany, France, Italy, Czech Republic and Canada. WEB AG operates, and has 100% ownership, of over 153 wind energy plants, some of which have been in operation for 17 years. Comprising a total capacity of more than 260 MW, WEB AG is seeking to grow its core business within Europe and North America. WEB AG adds significant value to the Project team through their exceptional experience in the wind energy industry, as well as their financial capabilities with their group of more than 3,300 shareholders and access to financing.

SWI was formed to be the COMFIT eligible entity, to raise local investment in community-based wind energy projects, and to assist in the community engagement part of the development process. SWI will obtain CEDIF status as part of this process. SWI is currently owned by a broadly distributed group of locally based shareholders, which includes four other CEDIF entities.

1.4 Regulatory Framework

1.4.1 Federal

A federal EA is not anticipated to be required for the Project as it is not located on federal land or listed as a physical activity that constitutes a "designated project" as listed under the Regulations Designating Physical Activities of the *Canadian Environmental Assessment Act (CEAA),* (2012).

Additional federal requirements are provided in Section 11.2 and 16.0.

1.4.2 Provincial

The Project is subject to a Class I EA as defined by the Environmental Assessment Regulations under the Nova Scotia *Environment Act (*NS *EA)*. As such, the proponents are required to register the Project with Nova Scotia Environment (NSE) and subsequently comply with the Class I registration process as defined by the document “A Proponent’s Guide to Environmental Assessment” (NSE 2009a).

The use of provincial roads during the construction, operation, and decommissioning phases of the Project will be in compliance with the “Nova Scotia Temporary Workplace Traffic Control Manual” (NSTIR 2009).

Additional provincial permits will be required as outlined in Section 16.

1.4.3 Municipal

The HRM has adopted a Regional Plan and Community Energy Functional Plan, recognizing the need for alternative sustainable energy and more specifically, the creation of new policies for the siting of wind energy facilities in HRM (HRM 2012). Three energy overlay zones have been created to reflect how wind energy facilities should be treated differently between the urban and rural areas of HRM. Based on the "Beaver Bank, Hammonds Plains, and Upper Sackville Land Use By-law" (2011) the proposed Project would be considered a Large Wind Energy Facility. Section 4.32 of the by-law indicates the Project site is situated within the Rural Wind Zone (RW-2) which permits all wind energy facilities, subject to a Development Permit, as well as several setbacks and guidelines, as outlined in Appendix A.

All required municipal permits (Section 16) and approvals will be obtained prior to construction.

1.5 Structure of Document

Table 1.2 outlines the content of each section of the EA report.

Table 1.2: EA Report Structure

Section	Content
Section 1	Project Information
Section 2	Project Description including an overview of Project location, activities and schedule
Section 3	Project Schedule
Section 4	General Environmental Mitigation/Best Practices
Section 5	Environmental Management
Section 6	Project Scope
Section 7	EA Methodology
Section 8	Biophysical Environment
Section 9	Socio-Economic Environment
Section 10	Cultural and Heritage Resources.
Section 11	Other Considerations
Section 12	Consultation and Engagement
Section 13	Effects Assessment
Section 14	Effects of the Environment on the Project
Section 15	Cumulative Effects Assessment
Section 16	Other Approvals
Section 17	Conclusions
Section 18	References

1.6 Author of the Environmental Assessment

This EA was completed by Strum Consulting, an independent, multi-disciplinary team of consultants with extensive experience in undertaking EAs across Atlantic Canada and internationally. This report was prepared and reviewed by:

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2.0 PROJECT DESCRIPTION

2.1 Turbine Specifications

The Project will be powered by four wind turbines, each rated at 2.0 MW, for a nominal capacity of 8.0 MW in total. Under normal conditions the turbines will operate 24 hours per day, 7 days per week. The Vestas V100 has been selected as the turbine model for the Project. Specifications are provided in Table 2.1.

Drawing 2.1 provides the turbine and access road layout.

Table 2.1: Turbine Technical Specifications Vestas V100

Turbine Component	Vestas V100 Specifications
Rated capacity	2 MW
Cut – in wind speed	3.0 m/s
Cut – out wind speed	20.0 m/s
Rated wind speed	12.5 m/s
Number of blades	3
Diameter	100.0 m
Swept area	7,850 m^2
Rotor speed (variable)	8.8 – 14.9 rpm
Tower (hub) height	95 m
Generator	Synchronous, permanent magnet, liquid-cooled
Yaw system	6 electric gear motor(s)
Control system	Vestas

2.2 Project Phases

The proposed Project will include three phases: site preparation and construction; operations and maintenance; and decommissioning. Activities and requirements associated with each phase are

N

Hants County

Halifax County

PID 41040684

PID 41279779

Portion of PID 00552786

PID 00469890

1

2

3

4

Beaverbank Rd

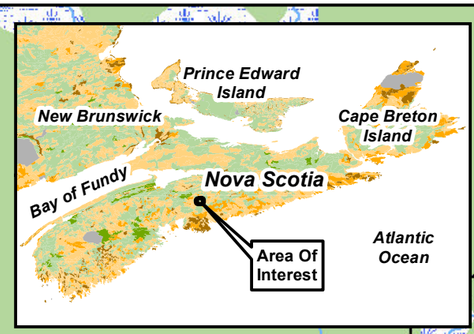
Beaverbank Rd

Burnett Dr

Dryweather

Rockey Brook

King's Brook



0 100 200 400 600 800 1,000 Metres

Notes:

1. Reference: Digital Topographic Mapping By Nova Scotia Geomatics Centre.
2. Projection: NAD83(CSRS), UTM Zone 20 North.

Legend:

- Proposed Turbine
- Proposed Access Road
- Project Site Boundary
- Building
- County Boundary
- Major Roads and Highways
- Public Roads
- Access Roads / Trails
- Existing Transmission Lines
- Large Structure
- Mapped Stream
- Mapped Indefinite Stream
- Water Bodies
- Mapped Wet Area
- Cleared Area

Turbine and Road Layout

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Date: October 2013	Project #: 12-4563
Scale: 1:12,000	Drawing #: 2.1
Drawn By: H. Serhan	
Checked By: M. Henley	

discussed in the following sections. Standard environmental mitigations that have been incorporated into the Project design are presented in Section 4.0.

2.2.1 Site Preparation and Construction

Services required prior to and during construction include, but are not limited to:

- Staging and storage facilities;
- Temporary offices;
- Laydown areas for construction and maintenance equipment;
- Temporary sanitary facilities;
- Water and rinsing facilities;
- Utilities and communications; and
- Garbage collection and off-site disposal.

Site preparation activities include:

- Land surveys for placement of roads, turbines, and associated works;
- Geotechnical investigations;
- Placement of erosion and sedimentation control measures; and
- Clearing of trees and grubbing areas for construction.

General construction activities include:

- Access road upgrading and construction;
- Laydown area and turbine pad construction;
- Transportation of turbine components;
- Turbine assembly;
- Grid connection;
- Removal of temporary works and site restoration; and
- Commissioning.

Weather constraints may affect the proposed schedule and weather dependent activities (*e.g.,* turbine delivery construction) which have been scheduled to occur during optimal time frames to minimize delay. For example, the delivery of the turbine pieces will occur outside of the spring weight restrictions, which are pursuant to Subsection 20(1) of Chapter 371 of the Revised Status of Nova Scotia, *The Public Highways Act (*1989*).*

Equipment needs will likely include:

- Light trucks;
- Drilling rigs;
- Backhoes; and
- Bunch feller (and similar harvesting equipment).

Access Road Construction

Access will be provided from existing logging roads off of Beaver Bank Road. Approximately 2.7 km of existing logging roads will require upgrades, with approximately 1.9 km of new road construction to provide direct access to the turbines. The access road is expected to be constructed to a standard carriageway width of 6 m; plus shoulders sloped at a ratio of 2:1. There will be areas where the road width could increase to 8 to 10 m to accommodate cut and fill areas and/or wide turns.

During the construction phase, the Project roads will be maintained with additional stone or periodic grading. Any material removed for road construction will be stored or disposed of in accordance with regulations and best practices for road construction. Any material stored on-site will be accompanied with appropriate erosion and sedimentation control measures, or re-used.

The following equipment is typically used during road upgrading and construction:

- Excavators;
- Dump trucks;
- Bull dozers;
- Rollers;
- Graders;
- Crusher; and
- Light trucks.

Laydown Area and Turbine Pad Construction

General activities during the creation of the laydown and turbine pad construction areas may include:

- Installation of erosion and sedimentation control measures;
- Removal of vegetation;
- Removal of overburden and soils;
- Blasting/chipping of bedrock (to be determined);
- Pouring and curing of concrete pads (complete with reinforcing steel);
- Placement of competent soils to bring area to grade;
- Compaction of soils; and
- Excavation for electrical conduits and fibre optic communication trenches.

The tower foundations will be approximately 15 m diameter (typical for a 2 MW wind turbine) and extend to a depth of 3 m below grade.

Each turbine pad and laydown area is expected to be approximately 100 m x 100 m. The exact arrangement of each turbine pad and crane pad will be designed to suit the specific requirements of the turbine and the surrounding topography during the detailed design process.

The construction of a typical turbine pad (from clearing to final preparation for erecting of the turbine) can take between 1 to 4 months, depending on weather, soil, and construction vehicle access.

The following equipment may be used for the laydown area and turbine pad construction:

- Excavators;
- Dump trucks;
- Bull dozers;
- Rollers;
- Graders;
- Crusher (not required if a local quarry can supply gravel sizes);
- Concrete trucks;
- Light cranes; and
- Light trucks.

Transportation of Turbine Components
A detailed transportation study will be completed by the turbine supplier as part of the design phase to determine appropriate routes and means for equipment and materials to be delivered to Project site. It is anticipated that as many resources and components as possible will be purchased from local suppliers and manufacturers. Upon completion, the study will be provided to NSTIR for review and comment.

The following permits are expected to be required:

- Work Within Highway Right of Way Permit: required if removing access signs and guard rails.
- Overweight Special Moves Permit from Service NS and Municipal Relations: to transport oversized and overweight components. In some cases, due to the size and weight of the components, some may only be transported on Sundays.
- Road weight restrictions, especially Spring Weight Restrictions, for heavier equipment and materials that will be transported to the Project site.
- Access points will be designed with proper height and width to accommodate large trucks and will adhere to commercial stopping sight distances.

The transportation route is expected to require a few slight road modifications, mostly involving the removal of signage and guardrails. To mitigate any negative effects on motorists where modification is required, a notice will be placed in public areas to inform local residents of signage removal or road infrastructure alterations. Removed signage and guardrails will be immediately replaced and appropriate temporary signage will be provided as necessary to ensure travelling public safety. Upgrades will also be made to roads and overhead wires, branches, and signs if conflicts arise. For areas requiring modifications, these will be completed to relevant specifications and any areas requiring reinstatement will also be completed as requested.

To the extent possible, transportation through Halifax will avoid high traffic times (*i.e.,* 7-9 am and 3-6 pm; Monday to Friday). All travel will be conducted using safe work practices for transporting oversized loads.

Transport of equipment will be via a minimum number of vehicles to minimize impacts to road-way flow and impacts on air quality due to exhaust.

During the Project's construction phase, trucks and other vehicles will be frequently visiting the Project site resulting in increased vehicular sound. To mitigate this effect, vehicles will only be visiting and working on-site during normal daytime hours of operation (to the extent possible) and will avoid high-traffic times of day to reduce local traffic congestion.

Turbine Assembly
The wind turbine assembly includes tower sections, the nacelle, the hub, and three-blade rotors (*i.e.,* a total of eight major components). All sections will be delivered by several flatbed trucks and the pieces will require a crane for removal from the vehicle at each of the prepared turbine pads.

The tower sections will be erected in sequence on the turbine foundation, followed by the nacelle, hub, and rotors. Rotors are usually attached to the hub on the ground prior to lifting. This assembly will occur with the use of cranes. Erection will depend on weather, specifically wind and lightening conditions. Typical assembly duration should be between 2 to 5 days.

The following equipment is expected to be used for turbine assembly:

- Main crane unit (up to 400' high in some cases);
- Assembly cranes; and
- Manufacturer's support vehicles.

Grid Connection
Electricity produced by this Project will be fed into the local distribution-level grid. Standard three-phase power lines will be constructed from the Project site to the existing lines that follow the Highway 354 corridor; connecting near the Ivey Meadows long-term care facility. This circuit connects to a substation located in Lucasville and will supply power to the Beaver Bank, Lucasville, Hammonds Plains, Mt. Uniacke, Moore Settlement, Millwood and Glendale Avenue areas.

The following equipment is expected to be used during the grid connection process:

- Excavator and/or back hoe;
- Bucket trucks;
- Light cranes; and
- Light trucks.

Removal of Temporary Works and Site Restoration
Once construction has been completed, all temporary works will be removed and the site will be appropriately graded.

The following equipment is expected to be used this process:

- Excavator and/or back hoe;
- Grader;
- Hydroseeder; and
- Light trucks.

Commissioning
The turbines will undergo a series of tests for mechanical, electrical, and controls prior to unit start-up sequence. Once the start-up sequence has been initiated, another series of performance checks for safety systems will be completed. When the turbines have cleared all tests, the commissioning of the units can begin.

Commissioning will require coordination with Nova Scotia Power Inc. (NSPI) as electrical energy will need to be managed both within the substations and on the transmission line. These performance tests will be completed by qualified wind power technicians and NSPI employees.

Additional testing may also be required for transformers, power lines, and substation components, all of which will be performed by qualified engineers and technical personnel.

2.2.2 Operations and Maintenance
Maintenance will conform to manufacturer equipment specifications, industry best management practices (BMPs), and standard operating procedures.

The life span of the Project is estimated to be a minimum of 20 years. During this time, roads will be used to access the turbines by staff and maintenance personnel. The roads will be maintained with additional gravel and grading, as required. During the winter months, all roads will be plowed, sanded, and/or salted, as required for safe driving and to ensure access in the event of an emergency.

A vegetation management plan will be initiated to ensure that access roads and turbine locations remain clear of vegetation. Timing of vegetation management will depend on site specific conditions.

Due to the potential for public access to the wind farm, signage will be affixed and maintained on all access roads to provide essential safety information such as emergency contacts and telephone numbers, speed limits, and the hazards associated with being within close proximity to the turbines (*i.e.,* ice throw). These signs will be maintained during the life of the Project.

Scheduled maintenance work will be carried out on a periodic basis. Maintenance work may require the use of a variety of cranes for brief periods of time for replacement of blades or other turbine components. The most common vehicle during maintenance work will be light/medium pickup trucks.

2.2.3 Decommissioning

As noted above, the operational life of the Project is estimated to be a minimum of 20 years. Prior to year 20, NSE will be either provided with decommissioning plans or a copy of the new power purchase agreement.

Generally, the decommissioning phase will follow the same steps as the construction phase:

- Dismantling and removal of the turbines from the Project site.
- Removal of the turbine foundations to below grade and reinstatement with top soil to ensure stabilization of the land.
- Removal, recycling (where possible), and disposal of collection system, conductor, and poles.
- Removal of all other equipment and reinstatement and stabilization of land.

3.0 PROJECT SCHEDULE

Table 3.1 presents the Project schedule from EA registration to Project decommissioning.

Table 3.1: Project Schedule

Project Activity	Timeline
EA Registration	Fall 2013
Follow-up Environmental Studies	2014/2015
Geotechnical Assessment	Fall 2013
Engineering Design	Fall 2013 - Winter 2014
Power Purchase Agreement	Summer 2013
Clearing	Winter 2014
Construction	Summer-Fall 2014
Commissioning	Fall 2014
Operation	Fall-Winter 2014
Decommissioning	TBD

4.0 GENERAL ENVIRONMENTAL MITIGATION/BEST PRACTICES

The following general environmental mitigation is considered to be standard practice and will be implemented as part of the Project design. Specific mitigation, monitoring, and follow-up that may be required to address residual environmental effects are discussed in Section 13.

4.1 Clearing and Grubbing

- Environmentally sensitive features will be identified and clearly marked where feasible (*e.g.,* watercourses, wetlands, areas of high archaeological potential).
- All watercourses will be kept free of chips and debris resulting from clearing activities.
- Appropriate erosion and sedimentation controls will be implemented to stabilize the slopes/banks on either side of watercourses and prevent sediment run-off.

4.2 Blasting (if necessary)

- Blasting will be conducted in accordance with provincial legislation and subject to terms and conditions of applicable permits.
- All blasts are to be conducted and monitored by certified professionals.

- Once the location of any required blasting is confirmed and the geotechnical investigation is completed, the need to implement mitigation measures or monitoring programs will be evaluated.
- If required, all protective measures will be outlined in the Environmental Protection Plan (EPP) and approved by NSE in advance of blasting activities.
- Landowners will be notified of any blasting activities
- Following any blasting or disturbance of soils or bedrock, exposed soils or bedrock will be recovered with soil and re-vegetated as required to minimize any exposure.
- Blasting near watercourses will only occur in consultation with Fisheries and Oceans Canada (DFO), and will follow the requirements of the *Fisheries Act* (1985) as well as the requirement of the DFO Factsheet: "Blasting – Fish and Fish Habitat Protection" (DFO 2010a); and/or the DFO "Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters" (Wright and Hopky 1998), as applicable.
- If sulphide bearing materials are identified through pre-construction geotechnical surveys, these areas will be referenced in the EPP.
- Rock removal in known areas of elevated potential will conform to relevant legislation (*e.g.,* the Sulphide Bearing Material Disposal Regulations of the NS *EA*), and in consultation with relevant regulatory departments.

4.3 Transportation

- A notice will be placed in public areas along Beaver Bank Road to inform local residents of signage removal or road infrastructure alterations. Removed signage and guardrails will be immediately replaced and appropriate temporary signage will be provided as necessary to ensure public safety.
- To the extent possible, transportation of materials through Halifax will avoid high traffic times (*i.e.*, 7-9 am and 3-6 pm; Monday to Friday). All travel will be conducted using safe work practices for transporting oversized loads. Consideration will be given to transporting turbine blades and other oversized loads at night to avoid high traffic periods and allow lane closures, as necessary, to navigate turns along the route.
- Equipment transport will utilize a minimum number of vehicles to minimize effects to road-way flow and effects to air quality from exhaust.
- Upgrades will be made to roads and overhead wires, branches, and signs if conflicts arise. Modifications and subsequent reinstatement will be completed to NSTIR specifications.

4.4 Avifauna

- Tree clearing activities will be executed in a manner that complies with the *Migratory Bird Convention Act* (*MBCA*) and the *Species at Risk Act* (*SARA*), specifically to avoid incidental take.
- Primary mitigation for avifauna will be through Project planning and scheduling of clearing activities, on a best-efforts basis, to avoid key migratory bird nesting periods.
- Should vegetation clearing be required during nesting periods, searches for migratory bird nests should be undertaken within the area to be disturbed, in consultation with Canadian Wildlife Service (CWS) and all identified nests should be flagged.

4.5 Dust and Noise

- Where required, dust will be controlled by using water or a suitable, approved dust suppressant.
- Construction equipment will be maintained in good working order and properly muffled.
- Noise control measures (*e.g.,* sound barriers, shrouds, enclosures) will be used where warranted.
- Noise-generating construction activities will comply with the requirements of existing by-laws [*e.g.*, HRM By-Law Number N-200 Respecting Noise (1999)].
- Engine idling will be restricted.

4.6 Erosion and Sedimentation Control

Contractors will use the erosion and sedimentation control measures listed below at all sites where soil or sub-soil has been exposed and there is potential for erosion:

- A site specific erosion and sedimentation control plan will be developed during the design phase of the Project.
- The area of exposed soil will be limited, and the length of time soil is exposed without mitigation (*e.g.,* mulching, seeding, rock cover) will be minimized through scheduled work progression.
- Both temporary and permanent control measures for erosion and sedimentation will be implemented in an appropriate time frame.
- Erosion and sedimentation control structures will be maintained and inspected regularly with particular emphasis before and after forecasted heavy rain events, and with consideration of the timing and types of activities involved.
- Existing roads and access routes will be used to the extent feasible.
- With the exception of temporary water crossing locations, travel through wetlands and within watercourse buffers with machinery will be avoided, when feasible. If travel through a wetland is required, the appropriate mitigation measures will be employed, (*e.g.,* geotextile matting, work timed to occur during frozen ground conditions, and travel routed through drier portions of the wetland).
- Care will be taken to ensure that the potential for surface run-off containing suspended materials or other harmful substances is minimized.
- Where necessary, erosion and sedimentation control measures will remain in place after work is completed, areas have stabilized, and natural re-vegetation occurs. All temporary erosion and sedimentation control materials will eventually be removed from the construction site.
- Permits/approvals related to site construction will be kept on-site.

4.7 Wetlands

- Wetlands will be avoided to the extent possible. Wetland alterations are not expected to be required for this Project. If unavoidable, wetland crossings/alteration will be completed in accordance with the Nova Scotia Wetland Conservation Policy and the wetland alteration application process during the permitting stage of the Project.
- Crossing of wetlands will not result in permanent diversion, restriction or blockage of natural flow, such that hydrologic function of wetlands will be maintained.

- Run-off from construction activities will be directed away from wetlands.
- Any wash water from the cleaning of construction vehicles will be disposed of on-site, using standard industry practices and following environmental regulations/guidelines for the protection of wetlands.
- Work vehicles and/or heavy equipment will be cleaned and inspected prior to use to prevent the introduction of weed/invasive/non-native species to sensitive habitats such as wetlands.

4.8 Dangerous Goods Management

- All fuels and lubricants used during construction will be stored according to containment methods in designated areas, located a minimum 30 m from surface waters and wetlands.
- Where possible, refueling in the field will not occur within 30 m of watercourses, water bodies or wetlands.
- Storage of all hazardous materials will comply with Workplace Hazardous Materials Information System (WHMIS) requirements. Appropriate material safety data sheets will be located at the storage site.
- Transportation of dangerous goods will comply with the *Transportation of Dangerous Goods Act* (1992).
- Equipment will be kept in good working order, will be inspected regularly, and any observed leaks will be repaired.

4.9 Waste

- Solid wastes, including waste construction material, will be disposed of in approved facilities.
- Temporary storage of waste materials on-site will be located at least 30 m from known watercourses, wetlands, and water bodies.
- Waste materials will be removed from the site by a qualified waste hauler and disposed/recycled in accordance with provincial waste regulations. All applicable materials will be stored as per WHMIS requirements and transported as per requirements of the *Transportation of Dangerous Goods Act* (1992).

4.10 Excavation and Site Reinstatement

- All soils removed during the excavation phase will be stored according to provincial regulations and best practice guidelines.
- Any soil needed for backfilling, after foundations have been poured, will be stored temporarily adjacent to the excavations until needed. Any remaining excavated material will be used on-site or removed and sent to an approved facility.
- Prior to excavation activities, erosion and sedimentation control measures will be deployed and assessed on a regular basis.
- Once backfilled material has stabilized, temporary erosion and sedimentation controls will be removed. Attention will be paid during site reinstatement to ensure areas will promote wildlife return to the area, to the extent possible.

4.11 Watercourse Crossings

- Any watercourse crossings required will comply with existing regulatory requirements.
- Crossing of watercourses will not result in permanent diversion, restriction, or blockage of natural flow.

- Crossings will be restricted to a single location on a watercourse and occur at right angles to the watercourse or wetland.
- Crossings should be located in areas which exhibit a stable soil type and where grades approaching the crossings will not be too steep.
- The approaches to watercourse crossings will be stabilized with brush mats, where necessary. Stream banks prone to erosion may require additional stabilization. Material used to stabilize/repair stream banks will be clean, non-erodible, and will not come from the stream bank or bed.
- Any wash water from the cleaning of construction vehicles will be disposed of on-site, using standard industry practices and following environmental regulations/guidelines for the protection of watercourses.

5.0 ENVIRONMENTAL MANAGEMENT

5.1 Environmental Protection Plan

An EPP will be developed following EA approval of the Project. The EPP will be approved by NSE prior to start of construction of the Project and will detail best practices and mitigative measures to be employed during construction to minimize potential environmental impacts. The EPP document is the primary mechanism for ensuring that mitigation is implemented, as determined through the EA process, to avoid or mitigate potential adverse environmental effects that might otherwise occur from construction activities, and as required by applicable agencies through permitting processes.

The EPP is a plan for all Project personnel, including contractors, and describes the responsibilities, expectations, and methods for environmental protection associated with Project activities. The EPP will incorporate:

- means to comply with requirements of relevant legislation;
- environmental protection measures identified as part of the EA; and
- environmental commitments made as part of the EA.

A suggested Table of Contents for the EPP is provided in Appendix B.

6.0 PROJECT SCOPE

As a Class 1 EA, this registration document and supporting studies have been developed to meet all requirements under Section 9(1A) of the NS *EA.*

In addition, the document has been prepared using the following provincial guidelines:

- “A Proponent’s Guide to Wind Power Projects: Guide for Preparing an Environmental Assessment” (NSE 2012a); and
- “A Proponent’s Guide to Environmental Assessment”, published by the Environmental Assessment Branch of NSE and revised in 2009 (NSE 2009a).

The following regulatory bodies have been contacted by the Project team to provide input into the Project planning process and advice regarding the EA scope:

- CWS;
- Nova Scotia Department of Communities, Culture and Heritage;
- NSE; and
- Nova Scotia Department of Natural Resources (NSDNR).

During the EA review process, additional consultation may be required with these and other agencies.

6.1 Site Sensitivity

Potential wind farms are assigned a category level, according to a matrix provided in "A Proponent's Guide to Wind Power Projects" (NSE 2012a). This matrix considers the overall Project size and the sensitivity of the Project site to determine the category level. The category level then outlines guidance with respect to the collection of baseline data for the EA, as well as post-construction monitoring requirements.

As the Project consists of four turbines, it is considered a small project. Based on the known presence of four bird species ranked 'Red' by NSDNR and the presence of a known bat hibernaculum less than 25 km from the Project site, the Project is classified as having a 'Very High' potential sensitivity. Overall, the Project is has therefore been determined to be a Category 4.

6.2 Assessment Scope

EA is a planning tool used to predict the environmental effects of a proposed project, identify measures to mitigate adverse environmental effects, and predict whether there will be significant adverse environmental effect after mitigation is implemented.

The EA focuses on specific environmental components called valued environmental components (VECs). VECs are specific components of the biophysical and human environments that, if altered by the Project, may be of concern to regulatory agencies, Aboriginals, stakeholders, resource managers, scientists, and/or the general public. VECs incorporate biological systems as well as human, social, and economic conditions that are affected by changes in the biological environment. As such, VECs can relate to ecological, social, cultural, or economic systems that comprise the environment as a whole.

The scope of the assessment for this Project includes: selection and preliminary assessment of potential interactions; identification of VECs; identification of environmental effects; and identification of the standards or thresholds that are used to determine the significance of residual environmental effects. This scoping relies upon direction from regulatory authorities; consideration of input from stakeholders; and the professional judgment of the Project team.

6.3 Spatial and Temporal Boundaries of the Assessment

For this Project, unless otherwise identified, the assessment of effects was undertaken for the area identified as the Project site (Drawing 2.1). For the purpose of data collection and the socio-economic environment, the HRM was considered. In addition, residences located within a 2 km

buffer of the Project site were assessed as potential receptors for the purposes of evaluating potential impacts from sound.

The temporal scope of this assessment covers the construction, operation, and decommissioning phases of the Project, and associated activities, as described in Sections 2.2.1, 2.2.2, and 2.2.3. Accidents, malfunctions, and unplanned events are addressed separately.

6.4 Site Optimization

As part of the Project planning process, a detailed constraints analysis (Drawing 6.1) was conducted to ensure that potential effects to the environment and neighboring residents were minimized. This analysis was continually updated and refined based on the results of Project specific desktop studies, modeling, and field assessments. As a result, several layout iterations were reviewed to reflect a growing knowledge of the Project site and surrounding community. Specifically, layout modifications were incorporated into the planning process in consideration of the following:

- Sighting within an optimal wind regime;
- Avoidance of interference with telecommunications and radar systems;
- Maintenance of a vegetated buffer between turbine locations and field identified watercourses;
- Avoidance of lakes, or other visible open water bodies as identified in 1:50,000 provincial mapping;
- Maintenance of a minimum 30 m (from tip of blade) buffer between turbine locations and field identified wetlands (NSE standard).
- As requested by NSDNR, larger buffer distances (*i.e*., 70 m from the tip of blade) have been incorporated into the Project design where a species of conservation interest (SOCI) has been identified during breeding season within a wetland;
- Avoidance of known protected areas, field identified archaeological resources, significant habitats, wildlife sites, provincial parks or reserves;
- Avoidance of Mi'kmaq resources;
- Maintenance of a minimum 1,000 m setback (HRM setback) between turbines and occupied dwellings, daycares, hospitals, and schools; and
- Predictive sound modeling results to meet NSE standards (*i.e.,* 40 dBA for dwellings, daycares, hospitals, and schools).

In addition to the general planning "constraints" and minimum setbacks mentioned above, the Project site and associated layout offers considerable development and ecological advantages that were incorporated into the Project design to minimize potential impacts to surrounding land uses, local residents and environmental features. These include:

- Accommodation of a large residential setback of over 1.7 km, well in excess of the HRM requirement;
- Development at site that has been previously disturbed by forestry activities (i.e., tree clearing and logging trails/roads throughout and surrounding the Project site);
- Incorporation of 2.7 km of existing roads into the Project design, resulting in minimal (i.e., 1.9 km) overall new road disturbance impacts and clearing requirements;

- No wetland or watercourse alterations required at turbine locations;
- No wetland crossings are expected at turbine locations or along roads;
- Accommodation of a buffer distance between turbines and field identified watercourses in excess of 100 m.

This siting exercise resulted in the current turbine locations that this EA was based on.

7.0 EA METHODOLOGY

The methodological framework used in this EA has been developed to meet the requirements of the NS *EA*. This framework is based on a structured approach that:

- focuses on issues of greatest concern;
- considers Aboriginal concerns as well as concerns raised by the public and other stakeholders; and
- integrates mitigative measures into Project design.

The methodology provides an overview of the baseline conditions and an assessment of VECs that reflect key issues of concern. Within the specified spatial and temporal boundaries, the potential for interaction between individual VECs and Project activities are determined. Where there is potential for Project-related environmental effects, each effect is assessed using the results of preliminary investigations, guidance from regulators, and the collective knowledge and expertise of the Project team. The residual Project-related environmental effects, (*i.e.,* after mitigation has been applied), are characterized using specific criteria (direction, magnitude, geographic extent, duration, frequency, and reversibility) that are applied to each VEC. The significance of these residual effects is then determined based on pre-defined and VEC-specific thresholds.

Project-related environmental effects are assessed and include potential interactions; mitigation and environmental protection measures proposed to reduce or eliminate adverse environmental effects; and the characterization of the residual environmental effects of the Project. The ultimate focus of the assessment is on residual environmental effects that remain after planned mitigation has been applied.

7.1 Preliminary VEC Selection

A preliminary assessment of potential interactions between selected environmental components and the Project was undertaken to identify VECs. This preliminary assessment is summarized in Table 7.1. For some of the identified environmental components, additional information has been provided in the report. Many of the interactions can be addressed using industry BMPs and adhering to existing regulations to mitigate potential effects. Where environmental BMPs and regulations are considered to be insufficient to fully mitigate potential effects, or where additional information is required, the components are identified as VECs and are therefore subject to further assessment in Section 13.0. Specific environmental requirements and mitigation practices are identified in the effects assessment and will be refined in subsequent environmental regulatory permitting processes.

Table 7.1: VEC Selection Table

Environmental Component	Description	Assessed further?	Applicable Section in the Report
Atmospheric Environment	Atmospheric environment includes consideration of air quality and climate conditions. Concerns include: • Dust generation from construction and operation activities. • Interaction with air quality due to exhaust emissions, including greenhouse gas emissions from Project equipment and vehicles during construction and operation. Only minimal amounts of dust and air emissions are expected. Mitigation for these potential effects is provided in Section 4. Project-related emissions are anticipated to be temporary, localized, and minor in nature. Measurable changes to the atmospheric environment are not expected.	No	Section 8.1
Geophysical Environment	Geophysical components include consideration of hydrogeology, groundwater, and bedrock and surficial geology. Concerns include: • Damage from blasting to domestic water sources. • Localized disturbances to surface soils and shallow bedrock. • Acid Rock Drainage (ARD). Once the location of any required blasting is confirmed and the geotechnical investigation is completed, the need to implement mitigation measures or monitoring programs will be evaluated. On-site bedrock is likely to contain sulphide bearing minerals, thus increasing the potential for ARD impacts. Should blasting be required, on-site testing for ARD will be completed, and if present, handled in accordance with the Sulphide Bearing Material Disposal Regulations under the NS *EA*. Given that Project-related effects on the geophysical environment are anticipated to be temporary, localized, and minor in nature, they are considered unlikely to result in measurable changes.	No	Section 8.2

Environmental Component	Description	Assessed further?	Applicable Section in the Report
Freshwater Environment	Freshwater environments involve consideration of fish and fish habitat and water quality which may be impacted by watercourse crossings, erosion and sedimentation etc. Concerns include: • Loss or damage to fish habitat. • Decreased water quality. • Mortality of aquatic species. It is expected that watercourse alterations will be required along access roads (refer to Section 8.3.3). All construction activities near watercourses will comply with the applicable regulations and guidelines. Additional mitigation is described in Section 4. Project-related effects on the freshwater environment are anticipated to be temporary, localized, and minor in nature. Measurable changes to the freshwater environment are not expected.	No	Section 8.3
Terrestrial Habitat, Flora and Fauna (including wetlands)	Terrestrial habitat involves consideration of general and specialized terrestrial habitats, such as wetlands, as well as terrestrial flora and fauna *(Note: Birds and rare species have been considered separately)*. Concerns include: • Habitat fragmentation. • Introduction of invasive species. • Damage to wetland ecosystems. • Mortality of some smaller faunal species due to clearing activities. Habitat fragmentation is considered to be minimal due to the small-scale clearing required due to the existing logging road network present within and adjacent to the Project site boundaries. Environmental protection practices will be incorporated into clearing and grubbing activities as described in Section 4. Mitigation to control and prevent the introduction of invasive species is provided in Section 4 and will be included as part of the Project Vegetation Management Plan. Avoidance of wetland habitat has been taken into consideration in Project planning and design including access roads and placement of turbines. Additional mitigative measures provided in Section 4 will be employed to protect wetland habitat and further micro siting will be completed, as necessary. It is expected that temporary sensory disturbance related to the site preparation and construction phases of the Project will not persist in the long-term. Sensory	No	Section 8.4, 8.5, and 8.6

Environmental Component	Description	Assessed further?	Applicable Section in the Report
	disturbance related to turbine operations will be negligible. Mortality of fauna will be minimal due to the utilization of existing access roads, small scale clearing requirements and attention to seasonal mitigation. Project-related effects on the terrestrial environment are anticipated to be temporary, localized, and minor in nature. Measurable changes to the terrestrial habitat and flora and fauna are not expected.		
Species of Conservation Interest (SOCI)	SOCI are those species assessed as being at risk or sensitive to some degree. For the purposes of this EA, SOCI include those species listed as: • "Endangered", "Threatened", or "Special Concern" under *SARA;* and • "Endangered", "Threatened " or "Vulnerable" under the Nova Scotia *Endangered Species Act* (NS *ESA*) Although protected under federal or provincial legislation, species with following designations have also been considered SOCI: • Ranked as "Red" or "Yellow" under the NSDNR General Status Ranks of Wild Species in Nova Scotia; and • Listed "Endangered", "Threatened", or "Special Concern" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Based on the above criteria, three fish SOCI and four fauna SOCI have potential to exist at the Project site. Concerns include: - Sensory disturbance. - Direct and indirect adverse environmental effects to habitat (loss or alteration). - Effects to fish passage/migration - Direct mortality of individuals. Loss of terrestrial fauna and aquatic SOCI is considered minimal due to the utilization of existing access roads, small scale clearing requirements, and attention to seasonal mitigation. However, due to special status under federal and provincial federal legislation/guidance, aquatic and terrestrial fauna SOCI are considered further in the assessment.	Yes	Sections 8.3, 8.5, 8.6 and 13.2.1
Avifauna	The effects of wind turbines on avifauna are variable and depend on factors such as the development design, topography of the area, habitats affected, and the bird community in the wind farm area. Concerns include: • Mortality resulting from direct collision. • Habitat alteration.	Yes	Sections 8.7 and 13.2.2

Environmental Component	Description	Assessed further?	Applicable Section in the Report
	• Sensory disturbance. The requirements as set out in the *MBCA* will be adhered to for clearing activities (Section 4). Due to the potential effects of wind turbines on avifauna, this component is considered for further assessment.		
Bats	The installation of wind turbines has the potential to impact bats both directly and indirectly. Concerns include: • Mortality resulting from direct collision and/or barotrauma. • Habitat alteration. • Sensory disturbance. The significance of these impacts at the population level depends on a number of biotic and abiotic variables, including the number of individuals affected and the stability of the population, season, physiologic condition of the individuals affected, and weather factors. Due to the potential effects of wind turbines on bat populations, this component is considered for further assessment.	Yes	Sections 8.8 and 13.2.3
Local Economy/ Land Use/Recreation and Tourism	Socio-economic aspects such as economy, land use/value, and recreation and tourism may be affected by the Project; however these effects may be positive and/or negative. The Project will likely create more local jobs, increase municipal tax revenues, and provide a community dividend, thereby resulting in a positive change for economy. Impacts to land use are not expected in the area since the Project is located on privately owned land that is currently used for forestry activities. Research has consistently demonstrated that, in a variety of spatial settings and across a wide temporal scale, sale prices for homes surrounding wind energy facilities are not significantly different from those attained for homes sited away from wind energy facilities. The Project represents a small footprint on privately owned land. Therefore, impacts to the broad recreational/tourism community are not expected. Effects on the socio-economic environment are expected to be positive in nature, or temporary, localized, and minor in nature. Measurable changes to the local economy, recreation and tourism are not expected.	No	Sections 9.1, 9.2, and 9.3

Environmental Component	Description	Assessed further?	Applicable Section in the Report
Human Health	The public is often concerned about the potential for impacts to human health from wind turbines. Concerns include: • Sound (addressed as a separate section). • Shadow flicker (addressed as a separate section). • Infrasound. • Electromagnetic fields (EMF). • Effects to air quality from dust and air emissions. • Risk of ice throw. A literature review regarding the potential for impacts to human health from wind turbines was completed (Appendix C). The main findings from this review are as follows: • There is no evidence that the levels of infrasound produced by the turbines present a risk to human health. • There is no discernible evidence that there are health risks associated with EMFs. • Effects to air quality are expected to be temporary, minor, and localized in nature (refer also to Section 4 and to 'Atmospheric Environment', above). • Setbacks and safety awareness measures minimize any potential risk from ice throw. Effects to human health are considered minimal or non-existent due to the size and location of the wind farm, mitigation, and setback distances.	No	Section 11, Appendix C
Cultural and Heritage Resources	If present, cultural and heritage resources may be affected by ground disturbance during construction and decommissioning activities. An Archeological Resource Impact Assessment (ARIA) indicated that no impacts to cultural and heritage resources are expected. Effects to cultural and heritage resources are considered non-existent. Procedures related to potential discovery of archaeological items or sites during construction will be described in the EPP.	No	Section 10
Shadow Flicker	Shadow flicker can occur when rotating blades cast flickering shadows during times of direct sunlight. Shadow flicker effects are expected to be minimal since there are no structures within 1,750 m of a turbine.	No	Section 11.1
Electromagnetic interference (EMI)	The rotating blades and support structures of wind turbines can interfere with various types of electromagnetic signals emitted from telecommunication and radar systems. An EMI study completed for this Project indicated that there were no objections regarding EMI effects associated with the Project provided to date.	No	Section 11.2