

6.0 FOLLOW-UP MEASURES

Acciona is committed to conducting monitoring activities to address residual environmental effects within a high level of concern or uncertainty. While it is anticipated that the residual environmental effects of the Amherst Wind Energy Project will not be significant, an Environmental Management Plan (EMP) and corresponding Environmental Protection, Monitoring, and Contingency Plans will be developed to address potential issues and concerns (see Section 5.4). The following section provides a brief overview of the Project follow-up measures.

The EMP is generally overseen by the Operations Manager, but all Project personnel will be trained in their specific requirements towards its implementation. Training will include the safe handling of hazardous materials and petroleum products, compliance with WHMIS, proper use of on-site firefighting equipment, and an environmental orientation prior to initiating on-site work.

The Environmental Protection Plan (EPP) is a key component of the EMP, and will be developed for both the Construction and Operations phases of the Project. The EPP for the construction period aims to reduce the environmental impact during construction activities and consists of environmental protection measures for routine activities associated with the construction of the Project; contingency procedures in the event of an erosion control failure, fuel and hazardous material spill, fire and/or encounter of archaeological and heritage resources; environmental monitoring, inspection and reporting requirements; a list of applicable permits, approvals and authorizations; and a key contact list. The EPP for the operating period aims to reduce the environmental impact of the operation activities and consists of guidelines for equipment maintenance activities; the safe storage, handling, and disposal of petroleum, oils and lubricants (POL); and the safe storage, handling and disposal of hazardous materials.

Environmental Monitoring is a key component of the EMP. Table 6.1 outlines the Environmental Monitoring Programs that will be in place for the Amherst Wind Energy Project.

The last aspect of the EMP is the Contingency Procedure Plan, which consists of a detailed response system in the event of the accidental release of petroleum, oils or lubricants (POLs) or other hazardous materials. Aspects of the plan include environmental concerns; personnel training; prevention measures; response-action plan, and a spill clean-up resource list.

Table 6-1 Environmental Monitoring Programs

Component	Method	Timing	Response-Action Plan
Sound	<p>In response to noise complaints, if any occur, the proponent would measure ambient sound levels and wind speed at selected residential receptors.</p> <p>The sound and wind data will then be combined to produce a plot of background ambient sound pressure levels versus wind speed.</p>	In response to noise complaints, if any occur.	<p>If the ambient sound levels at any residential receptors are higher than existing allowable limits, a report shall be filed with the NSEnv with the particulars of the concern, the suspected source, and any remedial actions taken or to be taken to resolve the concern.</p> <p>If the noise exceedance is related to equipment wear, the maintenance schedule will be adjusted to account for this and minimize the potential for a reoccurrence.</p>

Table 6-1 Environmental Monitoring Programs

Component	Method	Timing	Response-Action Plan
Shadow Flicker	<p>A registry will be created to document complaints of shadow flicker.</p> <p>In the event of a complaint, shadow flicker will be monitored from that receptor using photographs, and/or video recording at the appropriate time of day and year.</p> <p>Anecdotal information about shadow flicker will be collected from nearby residences.</p>	<p>Shadow flicker will be monitored as required during operation of the turbine. If required, it will be conducted once during the summer and once during the winter.</p>	<p>When a complaint or complaints of shadow flicker are received from a receptor located within 1,000 m of the turbine, shadow flicker will be monitored from that receptor. Information collected from the shadow flicker monitoring will be used will be used to develop further mitigation, if warranted.</p>
Bird and Bat Mortality	<p>Bird and bat carcass monitoring will be performed within a 40 m radius of each selected turbine. The fatality rate will require correction for scavenger removal of carcasses and field observation abilities of surveyors. The monitoring program will be confirmed with Environment Canada and NSDNR.</p>	<p>Monitoring of bird mortality will be conducted during the first two years following wind farm commissioning, with emphasis placed on surveying during peak spring and fall migration of birds and fall migration of bats.</p>	<p>One year of monitoring will be conducted for bats and two years of monitoring for birds (monitoring details provided in Section 5.0), then monitoring will be discontinued unless significant mortality is occurring. If significant numbers of bird and bat fatalities are observed around the turbine sites, the monitoring may be extended or revised, upon consultation with Environment Canada and NSDNR. Information collected from the bird and bat monitoring will be used for future planning of wind farms, if required and as applicable, and possibly to develop further mitigation, if warranted. If required, additional mitigation will be based on the current technology and methodologies available at the time.</p>
Aesthetics and Visual Impacts	<p>A registry will be established to record both negative and positive comments on the aesthetics and visual impact of the wind turbines.</p> <p>Media comment on the wind turbines will also be collected and documented.</p> <p>Photographs will be taken of the turbine locations from a minimum of two vantage points.</p>	<p>Photographs will be taken at least once after the turbines become operational. The comment registry will be maintained and media comment will be collected throughout the operation of the Project.</p>	<p>Information collected from the aesthetics and visual impact monitoring will be used to develop further mitigation, if required.</p>
Electromagnetic Interference	<p>A complaint resolution system will be in place to record and investigate complaints regarding telecommunications interference.</p>	<p>In response to interference complaints, if any occur.</p>	<p>Mitigation will be conducted on a case by case basis pending results of the investigation.</p>

7.0 CONSULTATION

Public consultation is an integral part of the environmental planning process and plays a key role in addressing potential public concerns identified in early stages of the study through Project notification, letters, emails and one-on-one communications. Additionally, public consultation is a requirement under NSEnv's "The Proponent's Guide to Wind Power Projects: Guide to Preparing an Environmental Assessment Registration Document" (NSEL 2007). The intent of this section is to provide an overview of the consultation opportunities to date in undertaking this EA.

7.1 Opportunities for Comment

Consultation was a frequent activity prior to and during this EA. Consultation activities have included meetings with stakeholders and several Open Houses at a public venue within the study area, together with meetings, phone calls and letters. The following sections present further details on those opportunities given to the public and reviewing agencies for comment. Supporting documentation is provided in Appendix A. The public will continue to be consulted in future phases of development. During the EA review process, additional issues may be raised by the public and the public will be invited to submit written comments on the proposed Project and information contained in the EA document to regulators for consideration.

Contact with agencies, interest groups and other interested parties occurred throughout the course of this study. These contacts included a variety of correspondence to gather and/or clarify information collected within the study area.

7.1.1 Open Houses

Three Open Houses have been held for the Amherst Power Project. All three Open Houses were held at the Wandlyn Inn in the town of Amherst. The attendees included interested stakeholders and government representatives from Cumberland County.

The intent of the Open House sessions was to encourage dialogue between members of the Project team in attendance and the general public and stakeholders; to enable the public and stakeholders to obtain updated Project information; to view information and updates on the proposed site and turbine locations; and to participate in the environmental and socioeconomic assessment process. The Open House sessions were advertised in the local newspaper approximately one week prior to the session and the week of the session. The same advertisement was run in the county newspaper the week before the session. Radio announcements were made on the local radio station on the week prior and the day of the session.

First Open House (March 2002)

The first Open House was held by NSPI. This Open House was held in early March 2002 and was attended by over 250 people.

The Amherst site was originally considered for wind farm testing by NSPI for one of its two turbine test sites in 2002. NSPI approached the Amherst community in February of that year and held an open house for a wind energy project in the area. The open house was held at the Wandlyn Inn in the town of

Amherst. Over 250 people (Scott-Wallace 2002) were in attendance to ask questions, but also to express their support for a wind energy facility in the Amherst area. Ultimately, the test turbine was erected elsewhere in Nova Scotia, but this experience helped to introduce the community to wind energy.

Second and Third Open Houses (December 2005 and October 2007)

The second Open House was held in December 2005 from 6:00 pm to 9:00 pm and was attended by over 27 people. The third Open House was held in October 2007 from 7:00 pm to 8:00 pm and was attended by over 37 people.

The sessions were informal and consisted of a display series of poster story boards; maps of the proposed site, descriptions of the wind turbine site construction and installation process; corporate information from the proponent, and information on site selection and regulatory approval processes for the Project Acciona and Wind Dynamics Inc. staff and consultants providing expertise on technical, environmental and land use were available to discuss the Project, answer questions, and document and discuss issues related to the Project with interested members of the public.

Attendees were asked to sign-in (optional) and were provided with/offered a Project Overview sheet and an information handout on the basics of a wind turbine (see Appendix A). Attendees were encouraged to complete a feedback form prior to leaving the sessions.

Panels were displayed at the open house that included information on the environmental approvals process, information on the natural environment of the Amherst area, general information on noise and technical information on the Amherst Wind Energy Project. Copies of the information panels listed below (Table 7-1) and the exit questionnaire are included in Appendix A.

Table 7-1 Information Panels Presented at the Second and Third Open Houses

Public Open Houses	
▪ Welcome	▪ Project Highlights
▪ Corporate Information	▪ Potential Issues of Concern (e.g., birds and noise)
▪ Project Description (including site maps)	▪ Benefits of Wind Energy
▪ Project Schedule	▪ EIA Process and Key Valued Environmental Components
▪ Technical Information (including the basics of a wind turbine and typical construction activities)	▪ Supplier and Career Information
▪ Regulatory Approval Process	▪ Contact Information

The exit questionnaires encouraged attendees to write additional comments or questions related to the Amherst Wind Energy Project. Few issues of concern were raised by the general public at the open house (verbally or via the exit/feedback form). Many of the attendees provided positive written and verbal feedback showing they were in favour of the Project. It is important to note that the majority of the comments from the first open house, with the exception of four, were submitted by one person who lives five kilometers from the proposed site. The written comments received during the initial public information session are provided below in Tables 7-2 and 7-3.

Table 7-2 Issues Raised at the December 14, 2005 Public Open House.

Issue/ Comment	Response
General Comments	
<p>This looks like a great project! We are concerned about the effects of greenhouse gases on our weather and climate. The use of a renewable energy source such as wind is to be commended. Congratulations to all who have supported this concept.</p>	<p>Comment noted.</p>
<p>Yes "green power" to its maximum potential.</p> <p>Noise: I don't believe for half a minute that with the indicated technology that the combined noise from the 20 or so windmills will be significant on most if not all days the noise will not be as loud as the present traffic noise on the TCH. Some days and nights (depending on atmospheric conditions) you can presently hear every transport (and sometimes autos) as they bump over all 17 sections of the TCH and railway overpass. I doubt very much if you will hear modern windmills over this. The windmill at the local RCMP detachment is not a fair noise comparison because of design. It was almost antique when created.</p> <p>Birds: Yes, we have teal, sandpipers (August), owls (Wildlife Canada survey), some blackbirds - the number depending on the number of sweet or grain corn being planted, pheasants – low flying, in my opinion, a few marsh hens, a spec of seagulls, pigeons, barn swallows and sparrows.</p> <p>Skyline: We used to have pristine skyline and sunsets previous to the construction of the power lines and the construction of the TCH. Don't worry about the white, whirling windmills. They might even be pretty.</p> <p>Drainage: In discussion with the developers, I feel they have respect for the presentation of the established drainage system.</p> <p>Other concerns are minimal.</p>	<p>Comments noted.</p>
<p>I appreciated the opportunity to get informed on this Project.</p>	<p>Comment noted.</p>
<p>I'm all for green power, but I'd like to see this farm further from the town because I'm afraid there may be a serious noise problem for the town of Amherst.</p>	<p>See Sections 4.5.6 and 5.2.1.4.</p> <p>Turbines will be situated at a minimum of 500 m from the nearest residence, as per Cumberland County wind turbine by-laws.</p> <p>Noise levels from a 1.5 MW wind turbine at 500 m are similar to talking in a bedroom. At 350 m, noise from a wind turbine is comparable to a refrigerator. At high wind speeds, the noise of the wind often drowns out the noise of the turbine.</p> <p>The technology planned to for this wind farm is very different than the smaller, much older technology used by the RCMP wind turbine in Amherst.</p>
Noise and Lights	
<p>Noisy. Sounds like a gravel pit crushing rock nearby. Sometimes so loud it makes it seems like we live in an industrial park. The noise can make it impossible to fall asleep.</p>	<p>See above response.</p>
<p>The wind mill factories drive you absolutely nuts. It is the annoyance of never having a quiet evening outdoors.</p>	<p>See above response.</p>

Table 7-2 Issues Raised at the December 14, 2005 Public Open House.

Issue/ Comment	Response
Blinking lights from the wind farm.	The proponent is required to meet Transport Canada and NAV Canada requirements with respect to navigational lighting on turbines. The proponent is currently discussing options for lighting to minimize disturbance to surrounding landowners, minimize attraction of birds and maintain navigational safety.
Cost	
This power that is produced here is not for Amherst area. Amherst and area are being used to make money for the wind company only.	The generated power flows into the provincial electrical grid just as other power sources do. It is likely that at any given moment a large amount of wind power will be consumed in the Amherst area.
Taxes: what tax relief is NS Power and the wind farm company receiving that we are paying in our taxes and how much kickback are they getting for putting a wind factory in our front yards that will not be used here in our local area.	The wind farm owners will have to pay taxes on the revenues generated as well as on some of the equipment installed. The land owners will pay taxes on their revenue received from the wind farm.
The extent to which wind developers cost are being shifted to tax payers and electric customers and hidden in their tax and electricity bills.	Wind power increases the supply of electricity which can in turn reduce the price for consumers.
The high cost of energy.	Wind is a free and inexhaustible fuel source. The cost of electricity produced from wind power is comparable to traditional sources of electricity production.
The added costs of wind energy due to its need for backup generating capacity from traditional energy sources because of the intermittence, variability and unpredictability of wind energy.	See above response.
Health Effects	
We are being used and have to put up with the effects of noise on people such as annoyance, nuisance, dissatisfaction and health effects such as sleep loss, anxiety, headaches, and diarrhea. Interference with activities such as speech and hearing.	The concern is a result of previous access to misinformation. The proponent is committed to providing accurate, proven information to the concerned stakeholders. For accurate information on wind power please visit www.canwea.ca .
Stray Voltage and Lightning	
Will there be lightning protection on the turbines?	Lightning protection will be built in by the turbine manufacturer.
Stray voltage finds its way to the ground. Energy disperses in all directions through the soil which can go to nearby buildings.	See Section 5.2.1.7. Electromagnetic Fields (EMFs) emanate from any wire carrying electricity and people are constantly exposed to these fields in their everyday lives. Available research indicates that EMF produced by a wind farm does not pose a threat to public health (National Research Council 1996). Electrical cabling between wind turbines is buried in the ground, effectively eliminating any EMFs.
Wind turbines can affect TV and radio signals.	See Section 5.2.1.8. Due to proximity and turbine layout, satellite television and radio, cable television and AM and FM radio signals will not be affected by the operation of the Amherst Wind Energy Project. The majority of residents in the regional area either have satellite or cable television.

Table 7-2 Issues Raised at the December 14, 2005 Public Open House.

Issue/ Comment	Response
Nearby Properties	
What insurance does the wind farm have against problems of nearby homes, etc.?	The turbines will be sited far enough away from homes that they will not interfere with each other. The project will be appropriately insured as any large development project would.
Concerned about wells.	Preliminary geotechnical studies have been carried out and will be done on exact turbine locations to ensure that no wells or aquifers will be affected.
Concerned about property values going down.	See Sections 4.5.5 and 5.2.1.2. In consideration of property values, seldom is one factor solely responsible, e.g. other factors such as local demographic change, economy changes, and the age and type of the house also influence property values. Research (e.g., REPP 2003) has shown that wind farms do not necessarily negatively impact property values, and in fact, sometimes property values increase for homes in the viewshed of wind farms.
Concerned about increased traffic.	The Project site is located on private land. The turbines will be situated at least 125 m from the nearest public road.
Frost causes major problems with underground cables.	Cables will be buried below the frost line to prevent any damage to underground cables.
Visual Quality	
Scenic impairment and other adverse environmental, health, and safety problems. Unsightly, ugly.	See Sections 4.5.10 and 5.2.1.3. Some residents have commented that they liked the look and presence of wind turbines because they represented "green energy". The proponent will work with landowners and residents who express concerns about the view of the wind turbines so that their views are taken into special consideration during the final design and layout of the Project. The Project site is located on private land. The turbines will be situated at least 125 m from the nearest public road. Turbines are only accessible to authorized personnel. An alarm system will be installed on the turbines to notify technicians in the event of a malfunction. A Project health and safety plan will be developed.
Tourism	
Tourism a problem as it can cause traffic accidents.	See Sections 4.5.3 and 5.1. The Project site is located on private land. The turbines will be situated at least 125 m from the nearest public road.

Table 7-2 Issues Raised at the December 14, 2005 Public Open House.

Issue/ Comment	Response
Regulatory	
<p>No one at the open house knows the location of where the wind generators will be located. No one knows what kind or size of wind generators will be used. Lack of proper answers to questions.</p>	<p>See Section 2.6.</p> <p>At the time of the December 2005 Open House, Project details had not been decided. The proponents intend to use their own model of turbine (AW-1500). The Project would consist of 20, 1.5 MW wind turbine generators.</p>
<p>The government of Nova Scotia and NS Power and the proposed wind mill companies have no guidelines except for the construction and lighting. The county has no by-laws to control wind mill generator factories.</p>	<p>The proponents are required to undertake an environmental assessment of the Project that will satisfy the requirements for a federal screening level environmental assessment (EA) pursuant to the <i>Canadian Environmental Assessment Act (CEAA)</i> and a Class I undertaking pursuant to the <i>Nova Scotia Environment Act</i>.</p> <p>An electric generating facility which has a production rating of 2 MW or more derived from wind energy is identified as a Class I Undertaking, thus this Projects requires registration for EA.</p> <p>Natural Resources Canada has developed guidelines for EAs of Inland Wind Farms under the <i>CEAA</i>. Environment Canada has developed EA guidelines for wind energy projects as they relate to potential impacts on birds. The EA for this Project will be conducted in accordance with all of these guidelines.</p> <p>Turbines will be situated at a minimum of 500 m from the nearest residence, as per Cumberland County wind turbine by-laws. There are also by-laws for noise, site permitting, etc., which will be followed. Where applicable, provincial guidelines will also be followed.</p>
Environmental	
<p>Project could kill many birds as this site is on a migratory route.</p>	<p>See Sections 4.3.2.1 and 5.2.1.5.</p> <p>Environment Canada has developed EA guidelines for wind energy projects as they relate to potential impacts on birds. The EA for this Project will be conducted in accordance with these guidelines.</p> <p>The proponent is committed to pre-and post construction bird research and monitoring to identify and assess potential impacts. The protocol for the monitoring program was developed in consultation with the Canadian Wildlife Service.</p> <p>The Project will reduce the potential for bird kills through proper location and design of the wind turbines.</p>
<p>The wind is not always predictable – lots of days we have no wind.</p>	<p>The Project has been sited based on a number of considerations, not the least of which is a wind resource analysis. Results of this analysis indicate wind conditions favourable for such a development. Such an investment without a proven wind resource would be financially irresponsible on behalf of the proponent.</p>

Table 7-2 Issues Raised at the December 14, 2005 Public Open House.

Issue/ Comment	Response
Decommissioning	
Tower removal? If it is not working for a certain period of time, will it be removed quickly?	See Sections 2.6.3 and 5.3. Wind turbines require periodic maintenance where they will need to be shut down for a brief time. Since there are little operational costs following the installation of turbines, it is in the best interest of the proponent to keep the turbines running. The EA addresses decommissioning of the Project and it is expected that decommissioning procedures will form part of the terms and conditions of approval. In any case, it is in the proponent's best interest, financially (<i>i.e.</i> , landowner leases) and from a liability standpoint to decommission the turbines in a timely manner.

Table 7-3 Issues Raised at the October 30, 2007 Public Open House.

Issue/ Comment	Response
General Comments	
Well organized presentation.	See above response.
There have been concerns voiced about the constant low level noise. It is recognized that it is a very quiet noise but that seems to bother people more, when it is a noise you just can't hear.	
My only concern is if the noise is going to reach as far as downtown Amherst. Otherwise let's get them built as soon as possible.	See above response.
Where our cranberry farm is located, we require large amounts of water. Our concern is will the foundations for the towers possibly interfere with available groundwater sources?	A hydrogeologist prepared a response to the landowner. No impact on the wells is anticipated, given the likely geotechnical investigation and/or pile installation techniques. No high pressure air that reportedly caused his past problem would be used. The dynamic forces associated with possible pile installation are not expected to propagate through the soil in a manner that would interfere with available groundwater sources.
Concerned over the impact of shadow flicker on the town. Suggest that proponent needs to have a shadow flicker test done and should have to make it public so the people can judge how it's going to impact them. Also concerned with what would happen to the turbines after they are no longer needed.	Shadow flicker is not expected to be an issue but will be addressed in the EA document. Decommissioning will also be addressed in the EA.
I'm all for wind farms, but I'm a little concerned about whether you'll be able to hear these things in the town. After about 10 years when bushings and bearings wear out, will they be noisy?	Operations and maintenance of the turbines will be addressed in the EA.

7.2 Municipal Planning Process

The Amherst Wind Energy Project is subject to a municipal approvals process in addition to the provincial environmental assessment and the federal *CEAA* processes. This municipal process included an application for an amendment to the Municipality of the County of Cumberland to re-zone the Project area from Rural Resource Zone to Utility Zone. This zoning permit also serves as the building permit. Since that time, the land use by-law has been revised. The updated Strategy By-Law provides that wind farms may be constructed in rural areas as of right, subject to certain requirements including that turbines be set back 500 m from buildings. Through these processes, opportunities for comment and input were provided to concerned parties.

7.3 Federal Co-ordination

In addition to the provincial EA and municipal planning requirements, the Project will trigger *CEAA* due to the application for the federal funding under NRCan's ecoEnergy for Renewable Power (EERP) program. Due to this federal funding trigger under *CEAA*, NRCan has been identified as a likely "Responsible Authority" (RA) for the Project. The Canadian Environmental Assessment Agency initiated the Federal Coordination Regulations under *CEAA* at which time other federal agencies, such as Environment Canada, Transport Canada and DFO, had an opportunity to review the Project Description to determine their interest in being involved in the review of this Project. To date, Environment Canada and Health Canada have been identified as having relevant expert knowledge to contribute to the *CEAA* process. Transport Canada has indicated that an authorization under the *NWPA* will be required for culvert installation. The Proponent is presently fulfilling requirements under that process. Transport Canada will also require a screening level assessment of the culvert installation pursuant to *CEAA*. This will be accomplished through a separate submission to Transport Canada.

7.4 Additional Consultation Efforts

Throughout this study, Acciona has made a concerted effort to keep government officials, members of the general public and additional stakeholder parties involved in the process.

Amherst town officials and Cumberland County officials were approached with respect to the current version of the Amherst Wind Energy project in 2003 by Wind Dynamics Inc. The Project has had numerous meetings with the Mayor of Amherst, Jerry Hallee, Town staff, the Warden of Cumberland County, Keith Hunter, and his Staff to provide periodic project updates and to work together on local permitting for the Amherst Wind Energy Project. In addition, meetings have been held with Cumberland Development Corporation, the Nova Scotia Farm Loan Board, the Department of Transportation, the Department of the Environment, Canadian Wildlife Service, Ducks Unlimited, Inc. and the Marshlands Administrator.

7.5 First Nation and Aboriginal Consultation

The Project site presently used primarily for agricultural purposes and there is no known traditional use by First Nation people. Letters were sent to the Confederacy of Mainland Mi'kmaq (CMM) in February 2006 and an updated version in January 2008. CMM was invited to provide input to the environmental assessment (letters provided in Appendix A). A letter of response dated February 6, 2008 was received from the CMM indicating that a Mi'kmaq Ecological Knowledge Study (MEKS) should be undertaken in

support of the EA. Due to a variety of factors, including the lack of governmental guidance on when to conduct an MEKS, as for other development projects in the past, JW has developed a risk-based approach to determining when an MEKS is required. This includes the evaluation of several “risk” factors including: the presence of crown land; proximity to First Nations communities; and the potential for First Nations archaeological resources. For the Amherst Wind Development Project the absence of crown land to be used in the Project, the Project not being in close proximity to any First Nations communities, and the low potential for First Nations archaeological and heritage resources to be discovered in the Project area (Section 4.5.7.3), led to the determination that a MEKS is not required for this Project and no follow up work is recommended.

To provide further opportunity for comment and review, First Nation and Aboriginal communities will be informed how to access the EA and provide comments.

8.0 CONCLUSION

Based on the results of this EA, the study team has concluded that the Amherst Wind Energy Project is unlikely to cause significant adverse residual environmental effects. The following section summarizes key points from the EA in justification of this conclusion.

Installation of the proposed Amherst Wind Energy Project will be completed in approximately 16 months of on-site time, limiting the period of disturbance to residents and wildlife associated with increased vehicle traffic and human activity. Remediation of disturbed surface areas will be undertaken as soon as possible after construction is complete, and the agricultural conditions of affected land will be remediated to approximate pre-construction conditions.

Operation of the facility will not result in production of emissions, and the sound levels at residences will be within acceptable standards. Under normal operation, human activity at turbines will be limited to monthly visits by maintenance personnel, and periodic visits by other individuals associated with specific studies.

Turbines present a potential collision hazard to birds and bats, as with other tall structures. Bird and bat collisions are expected to be infrequent considering the topography of the area, observed flying patterns, distribution of habitat, and low collision rates documented at other wind farms in the United States and Canada. Any other disturbances to birds and other wildlife will be minimal, of short duration, reversible and on a local scale.

Adverse socio-economic effects of the wind farm are anticipated to be minimal. There are no cultural resource activities, aboriginal use, and recreational use of the Project area. However, many positive effects will be realised. Landowners who are leasing their land for the Project will receive direct financial benefits from facility installation and operation, and the county will receive substantial revenue through property taxes, which will benefit county residents in turn. The Project will offer employment and revenue to local workers, and tourism may actually increase as a result of the operation of the wind farm.

The region around the study area has a rich prehistory and history, but there is no evidence of any settlement within the study area itself. However, there are remnants of an Acadian-period dyking system within the study area and this is considered as moderately significant. The proponent intends to establish a buffer zone around the river with the exception of culvert installation and upgrades to the old aboiteau crossing, thereby protecting the areas with the most potential to contact archaeological resources.

The visual landscape of the region will be altered by the presence of wind turbines. The visual characteristics of the wind farm and the adjacent rural landscape type are considered to exhibit minimal scenic attributes with respect to landscape distinction. In analyzing views from several locations near the Project, it is anticipated that the wind farm infrastructure, particularly the turbines, will be visible from some distance. Screening opportunities for adjacent residences through tree planting or other measures may be considered where post-construction evaluation indicates a legitimate concern. The physical design of the wind turbines (off-white, matte finish) is also intended to reduce the visual impact of the facility. Lighting will be as per permit requirements under Transport Canada's Canadian Aviation Regulations 621.19

The facility is expected to have a lifetime of at least 25 years. Necessary maintenance will be minimal, requiring on-site inspection by Acciona staff weekly.

Agriculture and the wind farm are the only two land use activities anticipated for the site. The Project will be entirely on agricultural land. Development required amendments to the Zoning By-Law for the Municipality of the County of Cumberland from a Rural Resource Zone to a Utility Zone. This zoning permit also serves as the building permit. Since that time, the land use by-law has been revised. The updated Strategy By-Law provides that wind farms may be constructed in rural areas as of right, subject to certain requirements including that turbines be set back 500 m from buildings. The wind farm will have a relatively small footprint on the landscape, using only a very small portion of the 437 ha of the Project area. Wind farm development will not impair existing agricultural operations.

Appropriate and effective mitigation measures have been recommended for the proposed Amherst Wind Energy Project to eliminate or minimise effects that may have been associated with the development. Any residual net adverse environmental effects are not likely to be significant based on the results and conclusions of this EA.

The wind farm will provide an economic benefit to the participating landowners and the county. The positive effects of the Amherst Wind Energy Project also include displacement of burning fossil fuel with an expected avoidance of greenhouse gas emissions greater than 70,000 tonnes of carbon dioxide, as well as tonnes of sulphur dioxide and nitrogen oxide. The Amherst Wind Energy Project will be an important component of Nova Scotia's commitment to renewable energy and reduction of air emissions from full combustion.

9.0 LIST OF SUPPORTING DOCUMENTS

- Atlantic Canada Conservation Data Centre (ACCDC). 2007. Data request for uncommon and rare species in the vicinity of Amherst, Nova Scotia.
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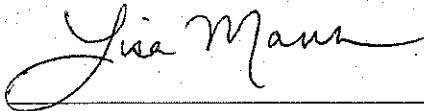
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10.0 SIGNATURE

This report presents details on the EA of the proposed Amherst Wind Energy Project, conducted in accordance the *Canadian Environmental Assessment Act*, following the "Environmental Impact Statement Guidelines for Screenings of Inland Wind Farms Under the *Canadian Environmental Assessment Act*" (NRCan 2003). "The Proponent's Guide to Wind Power Projects: Guide to Preparing an Environmental Assessment Registration Document" (NSEL 2007) was used to satisfy the requirements of provincial registration. Overall, the residual effects of the project are not significant and are acceptable, based on a balanced assessment against all of the screening criteria and the results and conclusions of the EA.

This EA was completed for Acciona by Jacques Whitford. The names and credentials (CVs) of all primary and secondary investigators are presented in Appendix H. Specifically, and on behalf of Acciona and Jacques Whitford, the report was prepared and reviewed by the following:

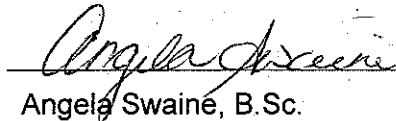
ORIGINAL SIGNED BY PROPONENT



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