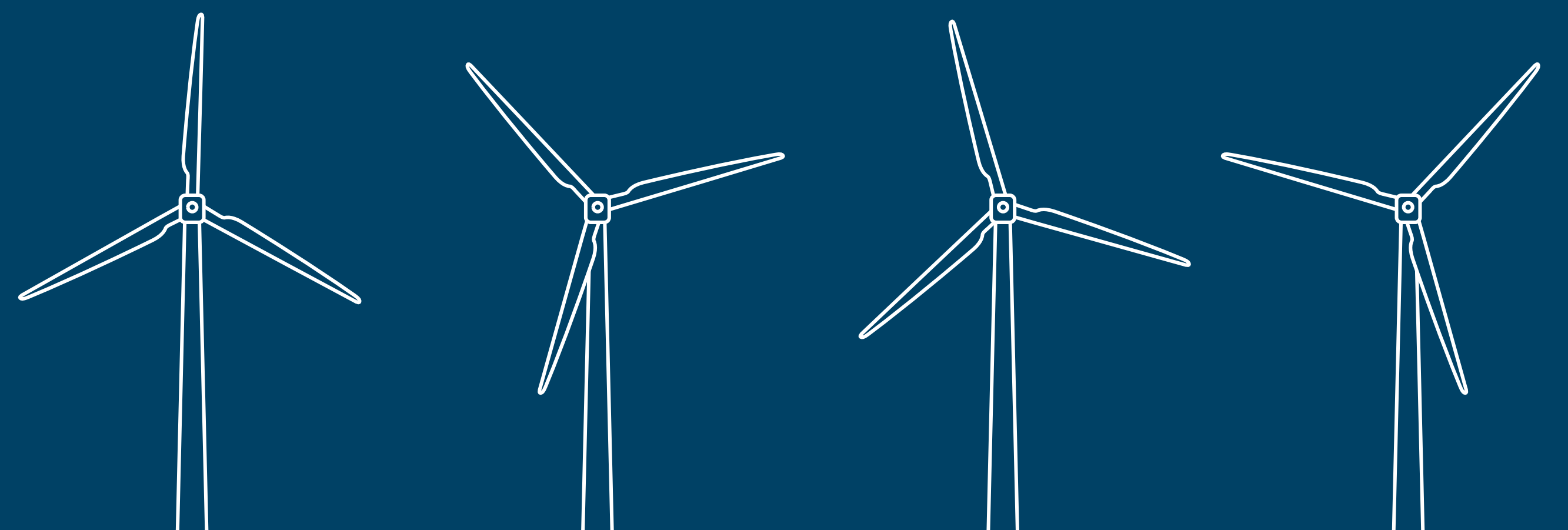


Welcome!



Thank you for coming to the Second Belle River Wind Public Meeting.

Your questions and comments are important to us.

Please be sure to sign in and complete a comment sheet.

Why Are We Here?

Good Planning Involves The Community

This Public Meeting continues the conversation with your community about the Belle River Wind Project.

The purpose of this meeting is to:

- » Provide an update on the Belle River Wind Project, review the proposed Project layout and learn about where we are in the Renewable Energy Approval (REA) process
- » Obtain community feedback on all the studies and investigations that have been completed for the Project to date
- » Present the findings of the Draft REA Reports
- » Provide an opportunity to speak with the Project team and have your questions answered about the Project
- » Discuss the next steps of the REA process, including submission of the REA application to the Ministry of the Environment and Climate Change



Who We Are



Belle River Wind

The Belle River Wind Project is being proposed by SP Belle River Wind (Belle River Wind), a joint venture limited partnership owned by Pattern Renewable Holdings Canada ULC (Pattern Development) and Samsung Renewable Energy Inc. (Samsung Renewable Energy).

The Belle River Wind Project will have a total nameplate capacity of up to 100 megawatts (MW) and is expected to host up to 44 turbines.

Samsung Renewable Energy

Samsung Renewable Energy, together with some of the world's leading renewable energy companies, has made an unprecedented \$5-billion private-sector investment in Ontario to create the largest cluster of wind and solar power anywhere on the planet. Thanks to Samsung's Green Energy Investment Agreement with the Government of Ontario, we are creating 9,000 jobs while producing 1,369 MW of clean energy.

Pattern Development

Pattern Development is a leader in developing renewable energy and transmission assets. With a global footprint spanning the United States, Canada, Mexico, Chile and Japan, Pattern Development's highly-experienced team has brought more than 3,500 MW of renewable power projects to market. Our mission is to develop projects built for lasting success. We have expertise in all project stages: resource analysis, site development, power marketing, finance, construction, operations and asset management. Our affiliate company, Pattern Energy Group Inc. (Pattern Energy), has a portfolio of 16 wind power projects with a total owned interest of 2,112 MW.

How Can You Get Involved?

We're Interested In What You Have To Say!

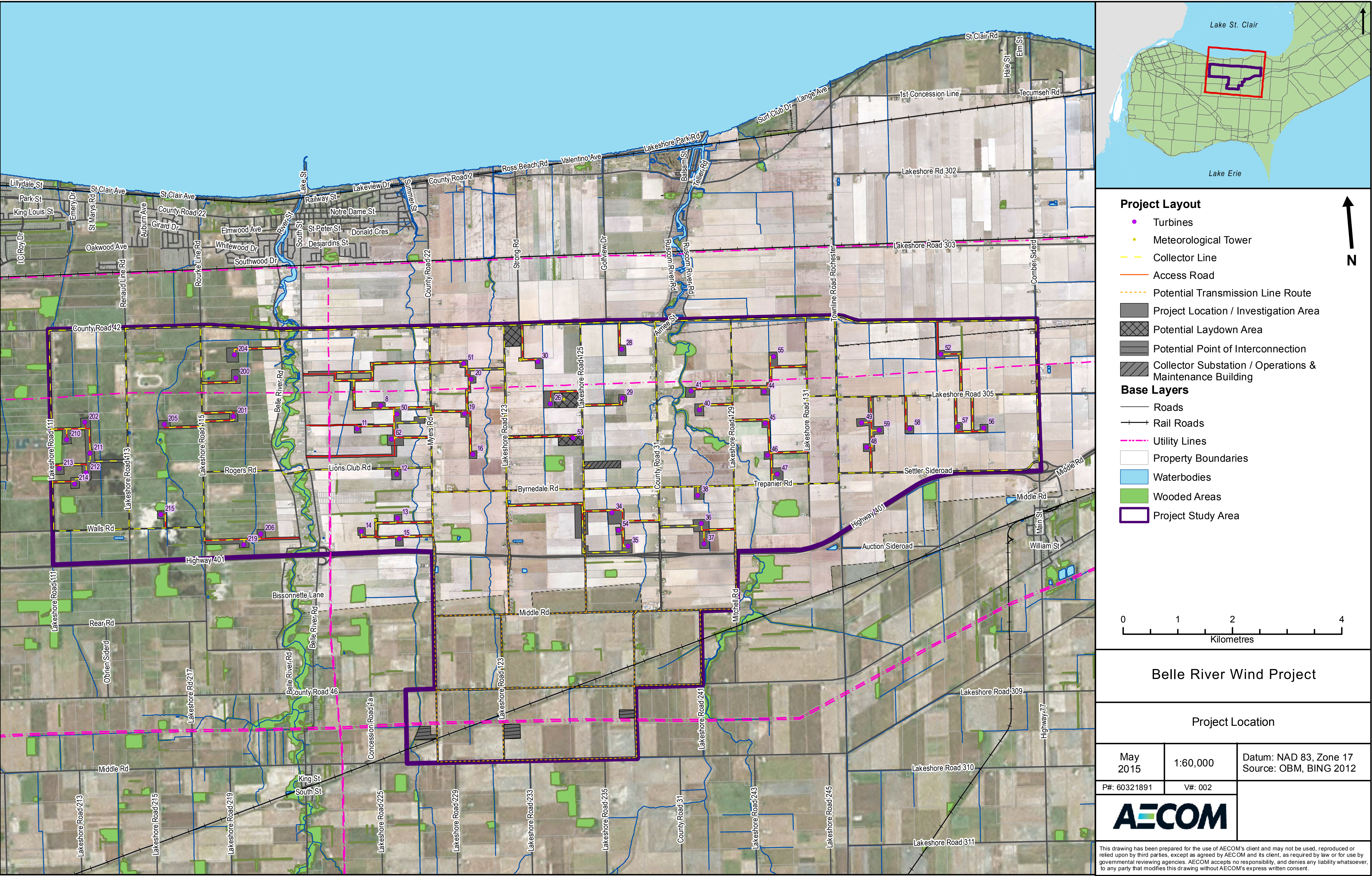
As you are reviewing the information presented, we encourage you to ask questions and provide your thoughts about the Belle River Wind Project.

Throughout the course of the Belle River Wind Project REA process, you may visit our website at: www.belleriverwind.ca to access up-to-date information.

We also encourage you to provide feedback to the Project team at any point during the study process by contacting us at: info@belleriverwind.com.



Project Location



According to Ontario Regulation 359/09, the Project Location is “a part of land and all or part of any building or structure in, on, or over which a person is engaging in or proposes to engage in the Project and any airspace in which a person is engaging in or proposes to engage in the Project.”

Renewable Energy Approval Process

REA Process

The REA is issued under Ontario Regulation 359/09 (Renewable Energy Approvals under Part V.0.1 of the Act) under the *Environmental Protection Act*.

The REA application will provide information on how Belle River Wind proposes to design, build, operate and decommission the Project.

A Consultation Report documenting all consultation and engagement activities will be prepared and submitted with the REA application.

Additional environmental approval and permitting requirements from agencies such as the Ministry of Natural Resources and Forestry, Ministry of Tourism, Culture and Sport and the Essex Region Conservation Authority will also be addressed as part of and subsequent to the Belle River Wind Project REA application.

Municipal permits and plans (e.g., Building Permit, Entrance Permit) will also be required from the Town of Lakeshore and County of Essex prior to construction.

The following reports were prepared and made available for public review as part of the REA process:

- » Draft Project Description Report
- » Draft Construction Plan Report
- » Draft Design and Operations Report
- » Draft Decommissioning Plan Report
- » Draft Wind Turbine Specifications Report
- » Stage 1 and Stage 2 Archaeological Assessments
- » Heritage Impact Assessment
- » Natural Heritage Assessment
- » Water Body Report and Water Body Assessment
- » Noise Impact Assessment



REA Process Diagram



Turbine Siting Process

Steps For Developing A Site Plan

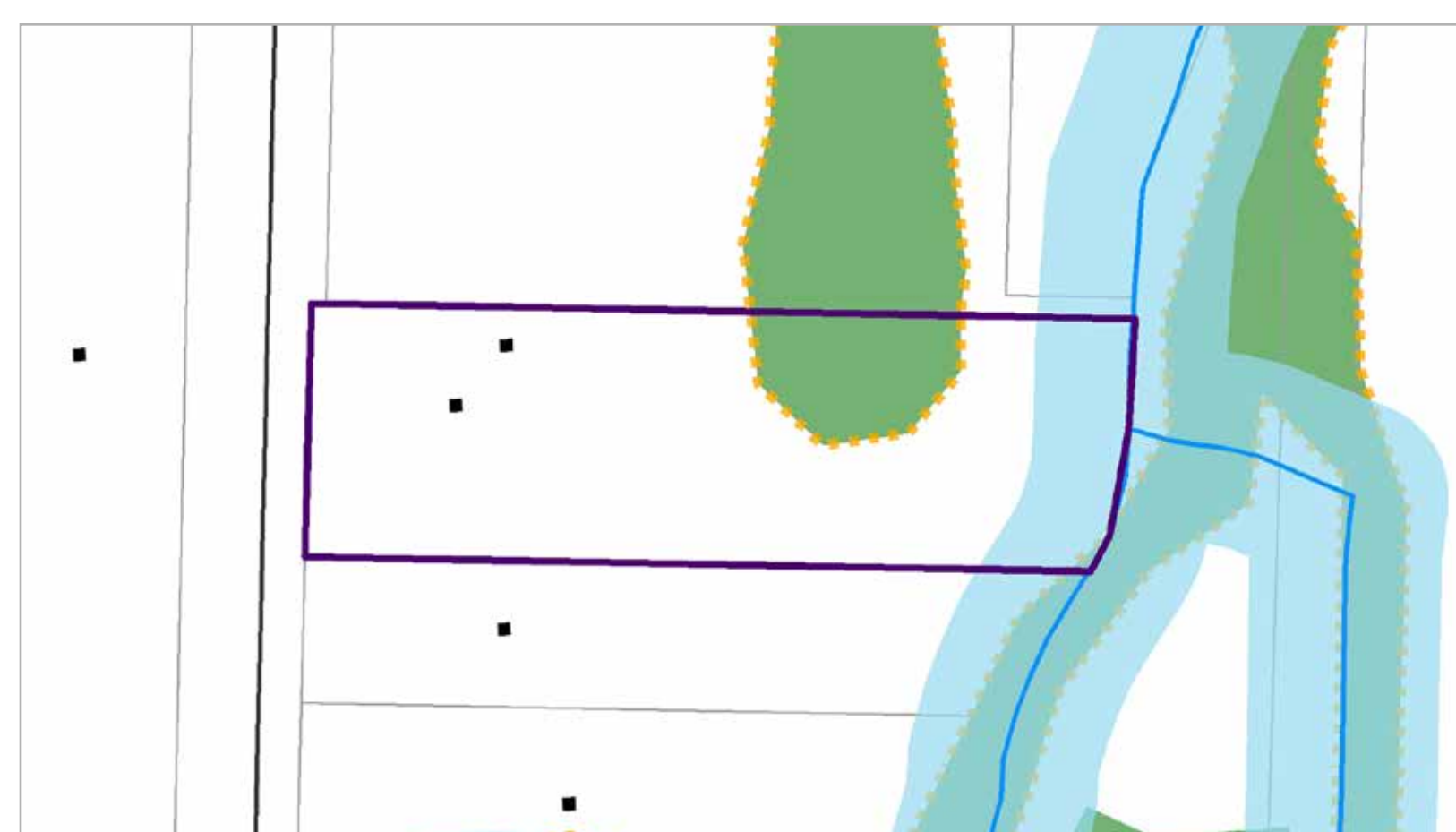
1. Identify a sufficient wind resource and study the wind conditions for several consecutive years
2. Work with local landowners to option land for wind turbines and supporting Project infrastructure (i.e., collector lines and access roads)
3. Identify technical and environmental constraints based on input from Project engineers, ecologists and aquatic biologists, heritage experts, local landowners, First Nation and other Aboriginal communities as well as government agencies
4. Identify locations to site Project infrastructure within the remaining land available (see figures to the right) while adhering to the setback distances prescribed by the province (i.e., Ontario Regulation 359/09)
 - Project components can be sited within the setbacks for some terrestrial features provided that an Environmental Impact Study is completed and mitigation measures are identified



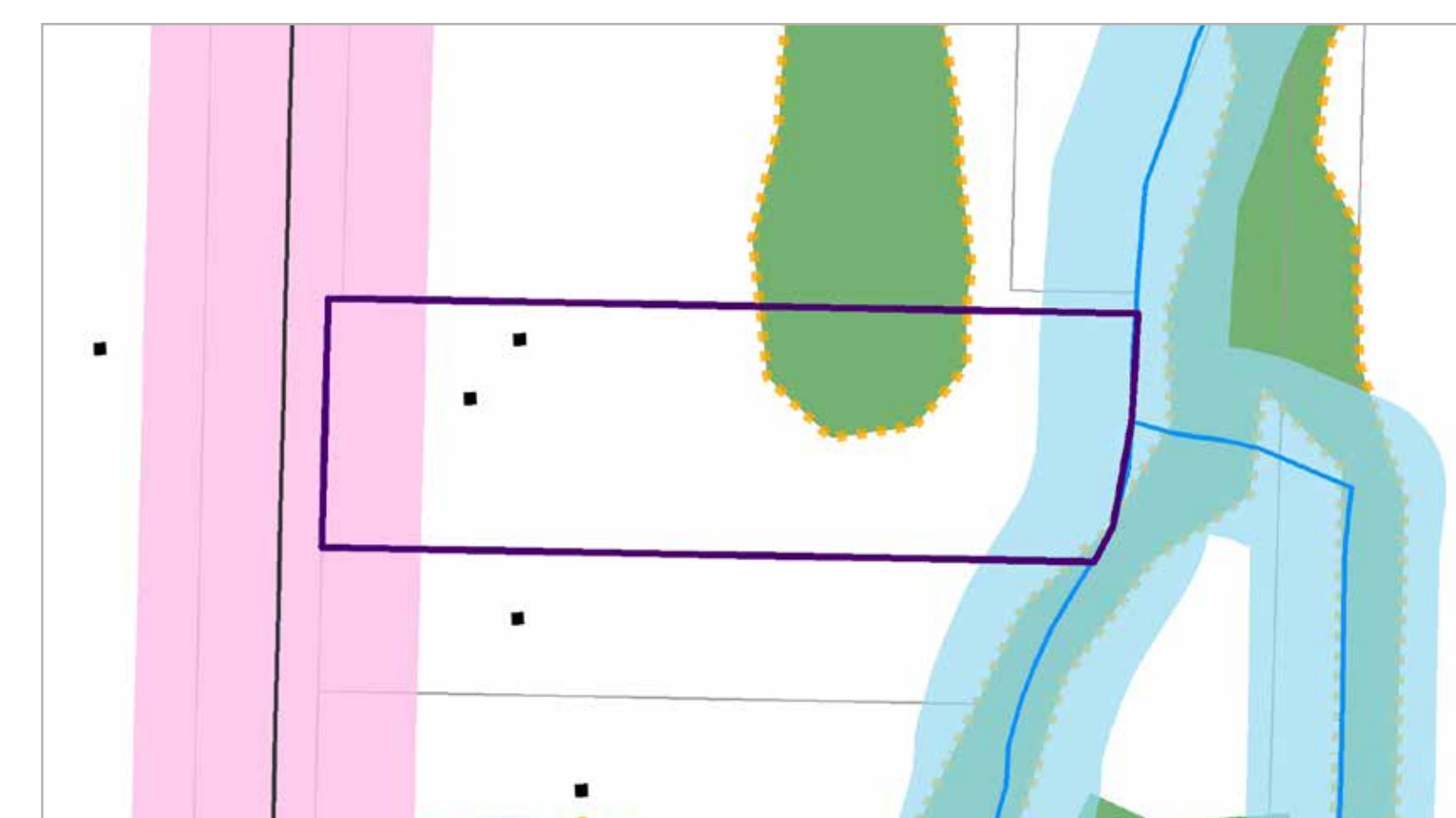
Work with local landowners to option land



Identify natural constraints



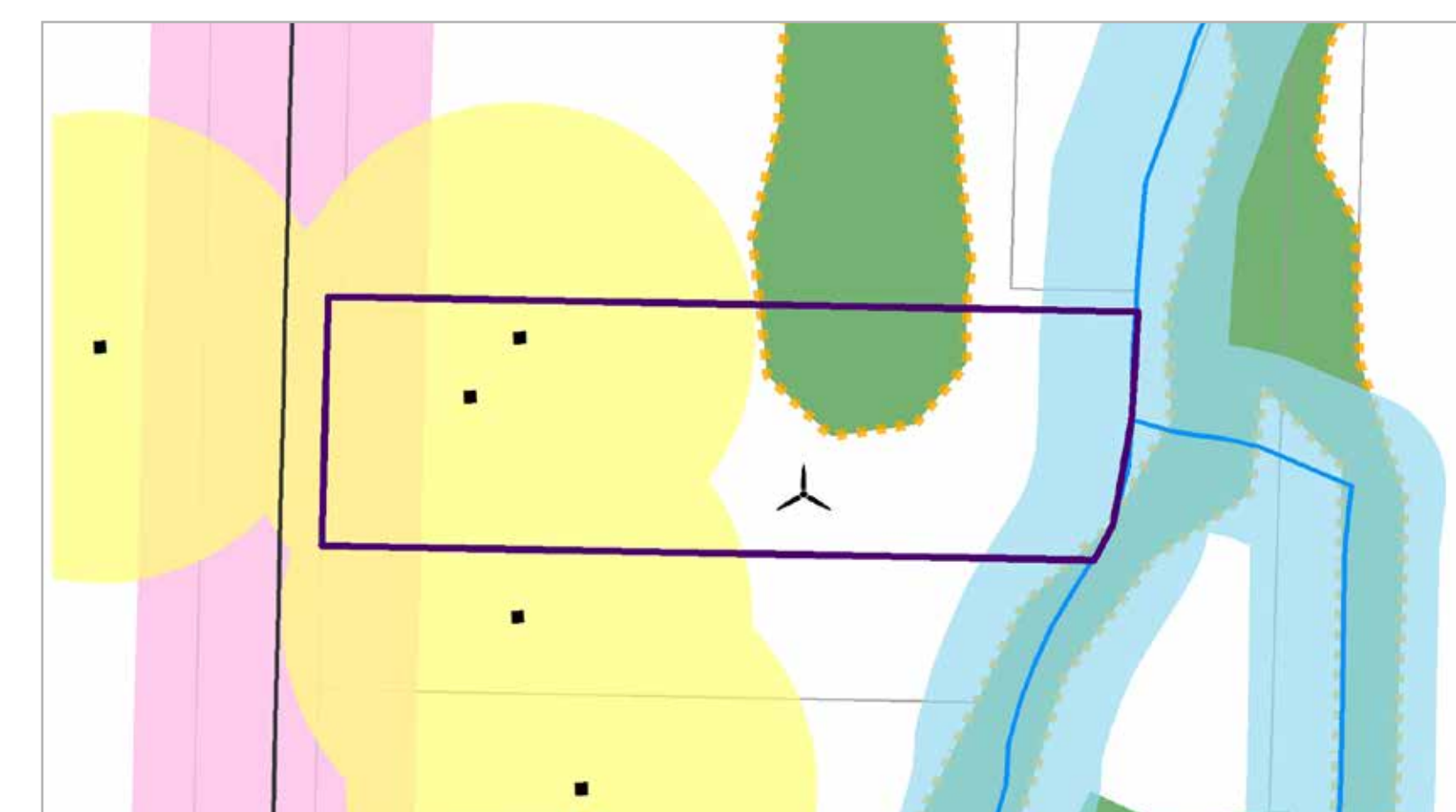
Identify aquatic constraints



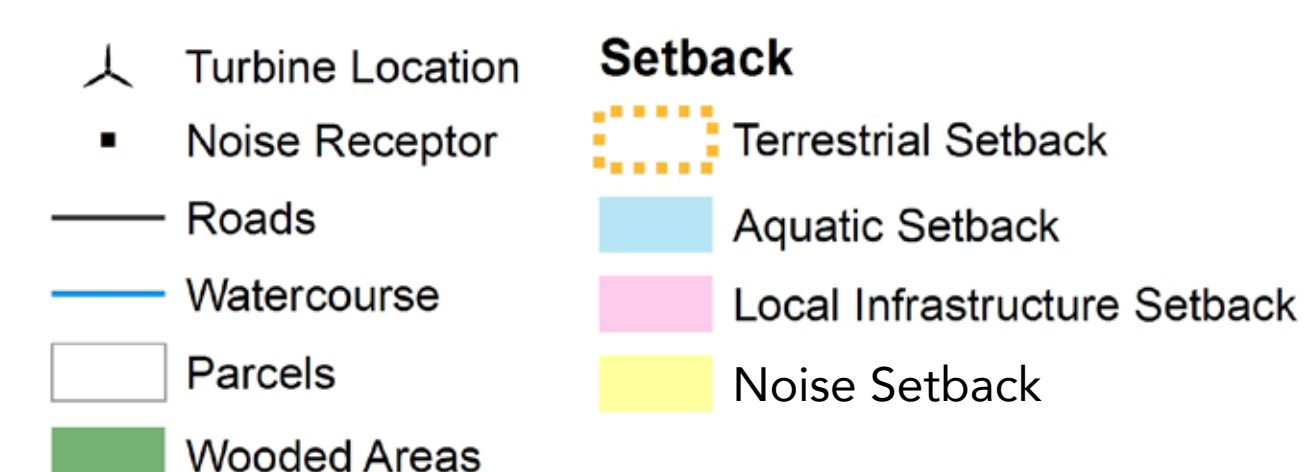
Identify local infrastructure constraints



Identify socio-economic constraints



Site turbine within remaining land available



Wind Turbine Setback Requirements

Project Related Infrastructure

Under the REA process, the Ministry of the Environment and Climate Change has established required setback distances from receptors for all renewable energy facilities.

If Project related infrastructure (turbines, access roads, collector system, etc.) is located within the setback distances, additional analysis (i.e., Environmental Impact Study) will be provided in the REA application and summarized in the final Project Description Report.

Setback Requirements

Feature	Setback Requirement
Non-participating receptor (see definition)	» 550 metres from turbine base
Public road right-of-way and railway right-of-way	» Turbine blade length plus 10 metres from turbine base
Property line	» Turbine height (excluding blades) from turbine base
Provincially significant southern wetland	» 120 metres
Provincially significant Area of Natural and Scientific Interest (ANSI) (Earth Science)	» 50 metres
Provincially significant ANSI (Life Science)	» 120 metres
Significant woodland	» 120 metres
Significant wildlife habitat	» 120 metres
Lake	» 120 metres from the average annual high water mark
Permanent or intermittent stream	» 120 metres from the average annual high water mark
Seepage area	» 120 metres

What Is A Receptor?

Existing buildings (e.g., homes) or vacant lots that are, or could potentially be, used for overnight accommodation or as an educational facility, health care facility, day nursery or place of worship.

Hospital



School



Planning and Design

Major Components

The Draft REA Reports have been prepared for the Belle River Wind Project.

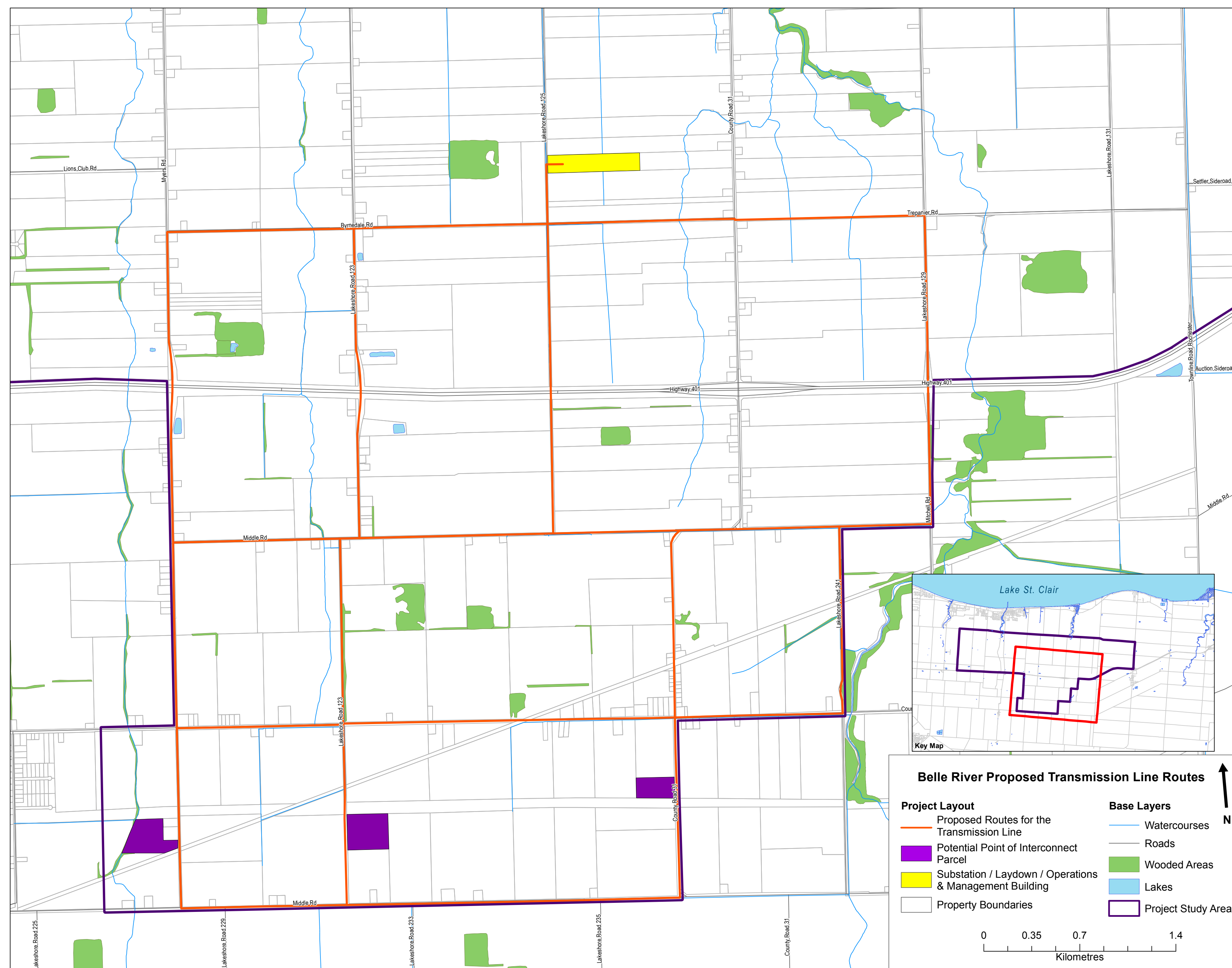
The Project is proposed to include the installation of up to 44 wind turbines with an installed capacity up to 100 MW.

The major components of the Project include:

- » Wind turbine foundations and generators
- » Pad-mounted step-up transformers
- » Collector system
- » Transmission line
- » Collector substation
- » Microwave tower
- » Meteorological towers
- » Access roads
- » Temporary staging areas
- » Operations and maintenance building



Proposed Transmission Line



To connect the Belle River Wind Project to the provincial energy grid, a 230 kilovolt (kV) electrical transmission line will be built from the Project transformer station to a connection point on the Hydro One network. The transmission line will be located within the Project Study Area on private property and/or within existing municipal road right-of-ways.

There are several design options being considered for mounting the transmission line onto new hydro poles, including using wood, concrete or steel poles.

The transmission line route is under investigation. Proposed routing options for the transmission line are shown in red on the figure above. The final route will be determined after studies are completed and input from stakeholders and the community is considered.

How Wind Works

Harnessing The Wind

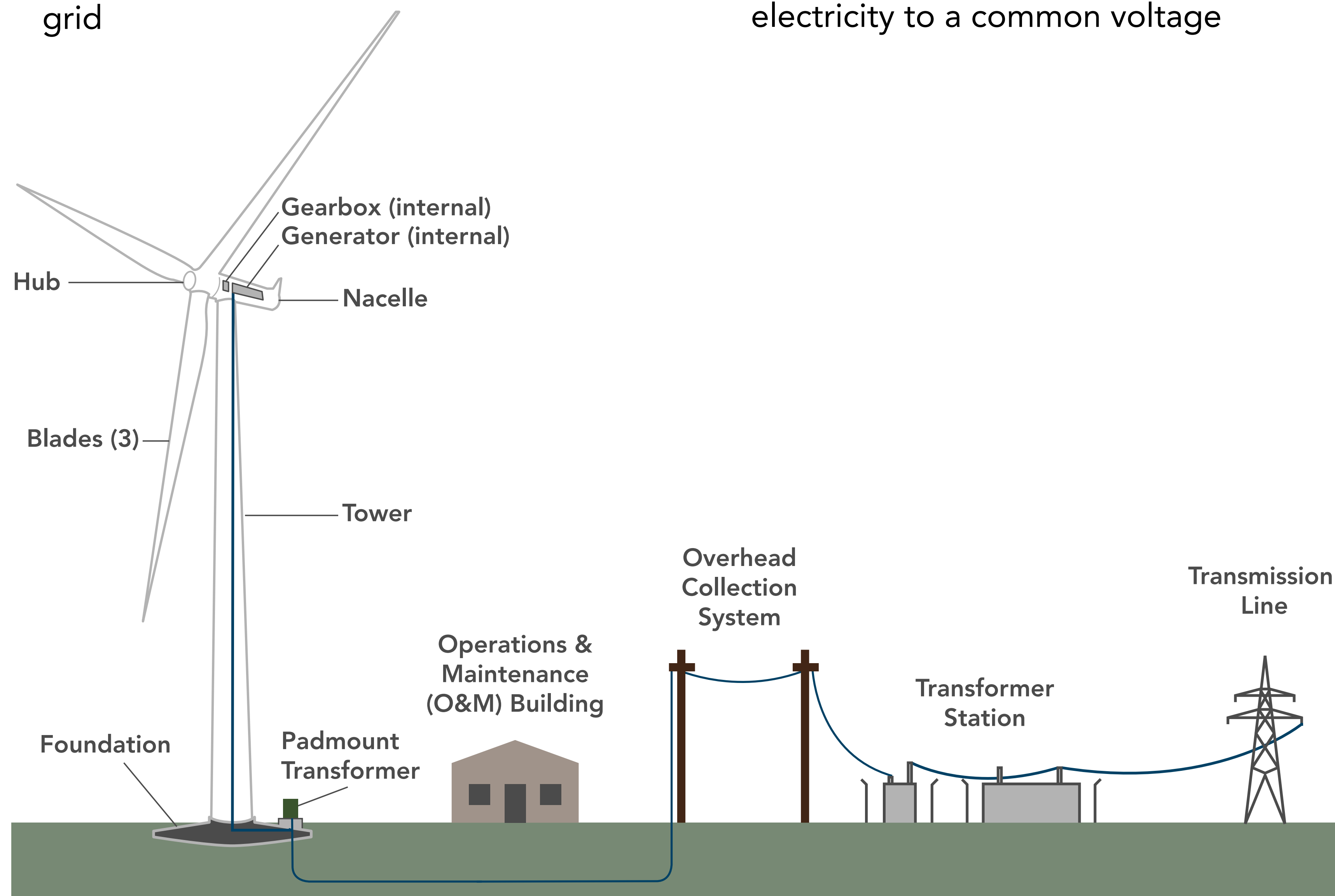
- » Wind turbines capture kinetic energy in surface winds and convert it into electrical energy using large blades mounted on tall towers
- » As wind moves over turbine blades, it causes “lift” – the same effect used by airplane wings
- » Lift makes the blade rotate, which turns the shaft
- » The turning shaft creates electricity within a generator, which in turn creates electricity that can be sent to the power grid

Main Components

- » Blades which convert the wind’s energy into rotational shaft energy
- » A nacelle (enclosure) containing a drive train, usually including a gearbox and generator
- » A tower to support the rotor and drive train
- » Electronic equipment such as controls, electrical cables, ground support and equipment
- » Transformer which converts the electricity to a common voltage

Ancillary Components

- » Operations and maintenance building to monitor day-to-day operations
- » Collector system to carry electricity from the turbines to the collector substation
- » Collector substation to collect the electrical collector lines and transform the collector line voltage (34.5 kV) to a transmission voltage (230 kV)
- » Transmission line to carry electricity to the point of interconnection with the provincial transmission grid



« Diagram of a Typical Wind Farm Layout

*not to scale

Benefits of Wind Energy



Community

- » Compatible with mixed land use (e.g., grazing, agriculture and hunting)
- » Strengthens the local tax base, helping to improve municipal services, including schools, police and fire departments
- » Provides a steady income to farmers and property owners
- » Increases revenue for service businesses (e.g., hotels and restaurants) during planning, construction and operation

Economic

- » Reduces reliance on imported fossil fuels
- » Quick to install and are low maintenance once in place
- » Helps stabilize the cost of energy
- » Creates thousands of "green-collar" jobs in construction, operation and manufacturing
- » Supports the local economy as Ontario goods and labour will be used during construction and operation
- » Provides a reliable supply of domestically produced energy

Environmental

- » Wind is a clean and inexhaustible resource
- » Modern wind energy generating equipment is efficient, reliable and environmentally friendly
- » Renewable energy will help reduce dependence on other forms of electricity generation that contribute to greenhouse gas emissions and poor air quality
- » Wind power generation can help reduce the amount of carbon dioxide, sulphur dioxide and nitrogen oxides that are produced by other forms of electricity generation

Providing Clean And Safe Power

Ontario doctors, nurses and other health professionals support energy conservation combined with wind and solar power to help us move away from the use of coal for energy generation.

More than 80 countries around the world are using commercial wind power today, and wind energy is broadly understood to be one of the safest and most environmentally-friendly forms of electricity generation.

With more than 318,000 MW of installed wind energy capacity and 225,000 wind turbines operating around the world, hundreds of thousands of people live near and work at operating wind projects. The balance of scientific evidence and human experience to date clearly concludes that wind turbines do not adversely impact human health. These conclusions are supported by a body of work by medical and scientific experts.

Source: Canada Association of Physicians for the Environment, Registered Nurses' Association of Ontario, the Lung Association, the Asthma Society of Canada, and Ontario College of Family Physicians. Global Wind Energy Council, Global Statistics 2013.

"According to the scientific evidence, there isn't any direct causal link between wind turbine noise and adverse health effects."

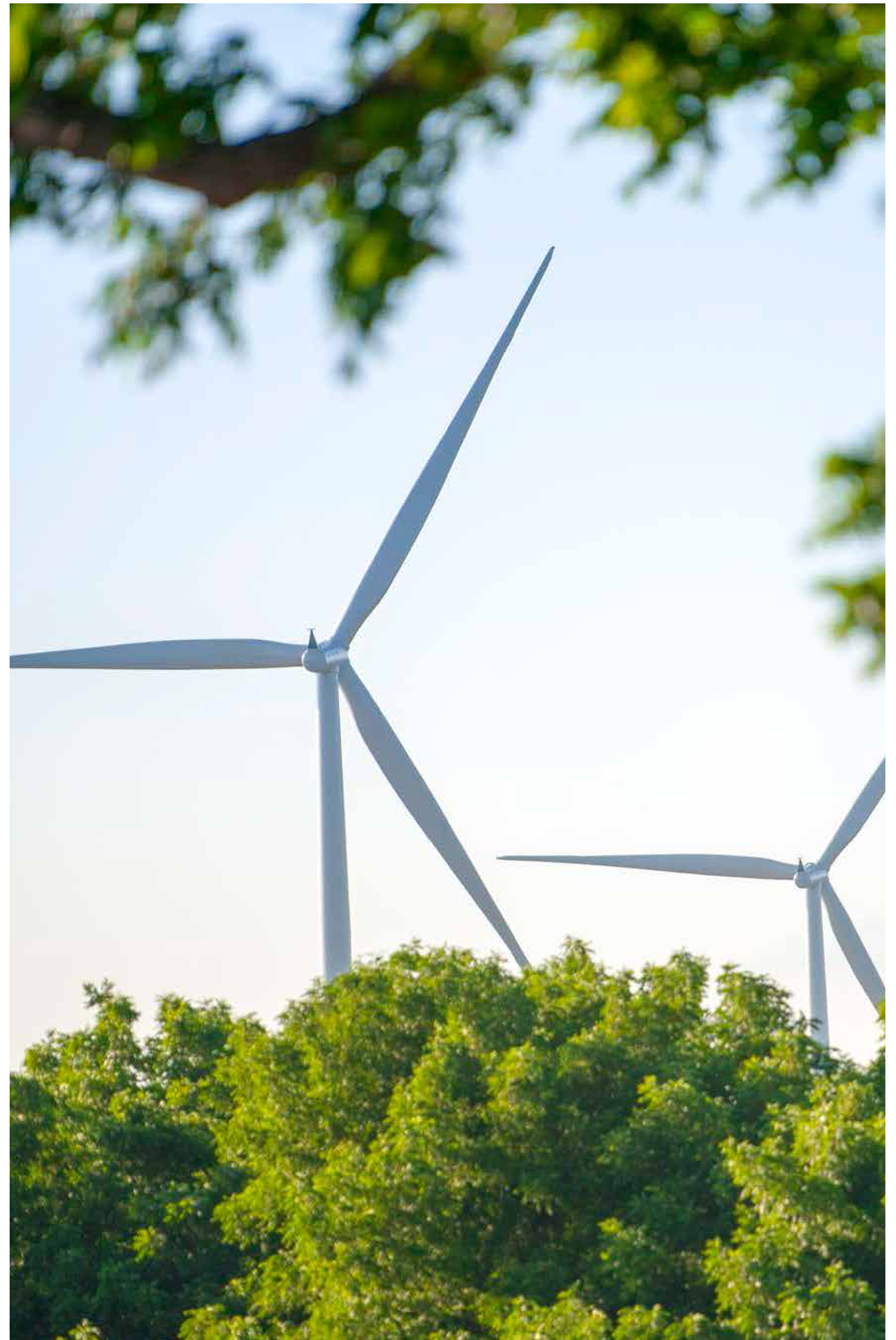
*Dr. Arlene King, Former Chief Medical Officer of Health,
Province of Ontario*

"Opposition to wind farms on the basis of potential adverse health consequences is not justified by the evidence."

Dr. David Colby, Medical Officer of Health, Chatham-Kent

Health Canada determined noise from wind turbines does not have any measurable effect on illness and chronic disease, stress, quality of sleep or overall quality of life.

Health Canada, November 6th, 2014



Belle River Wind | www.belleriverwind.ca



Wind Turbine Specifications

The Project will use the Siemens SWT-3.2-113 wind turbine.

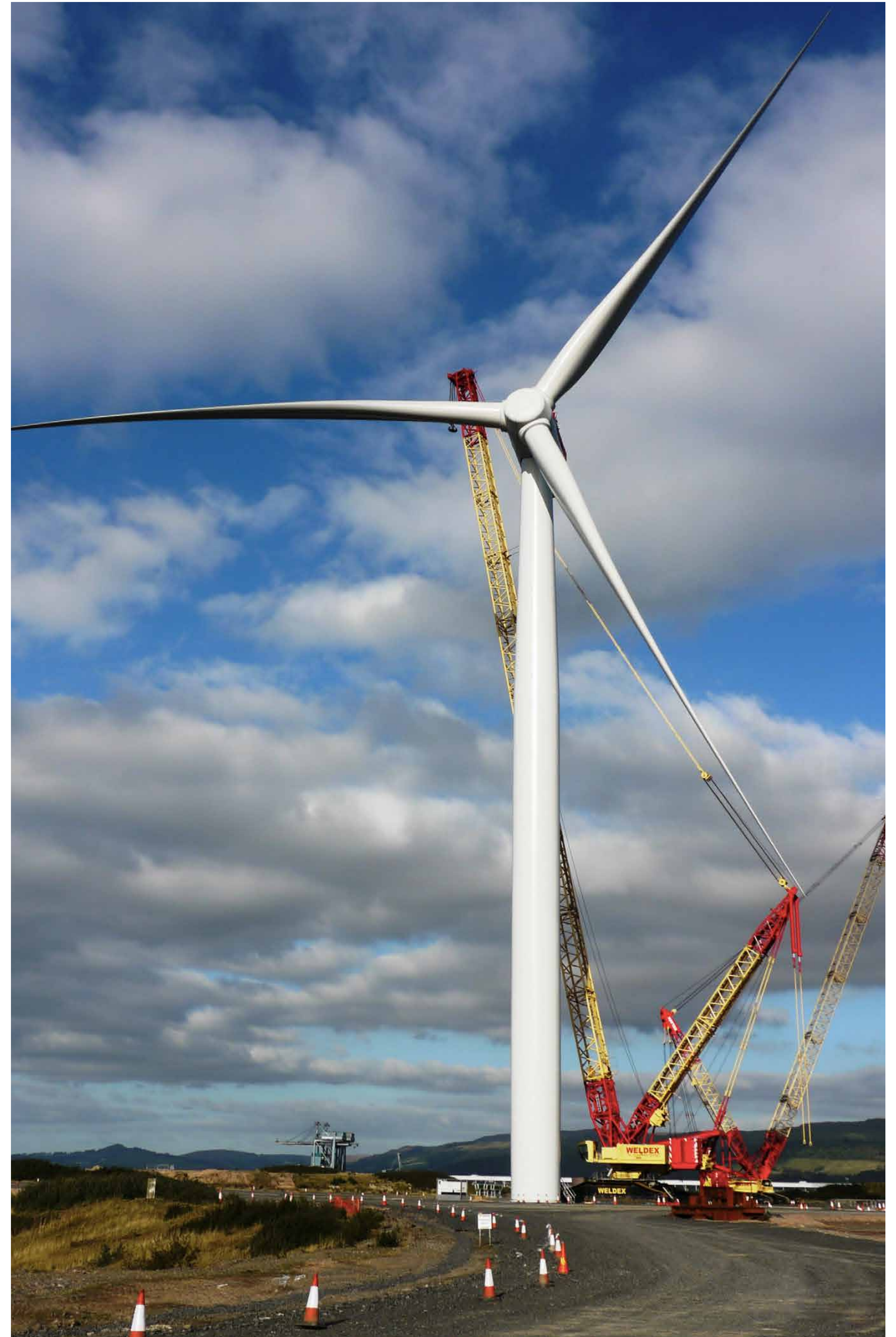
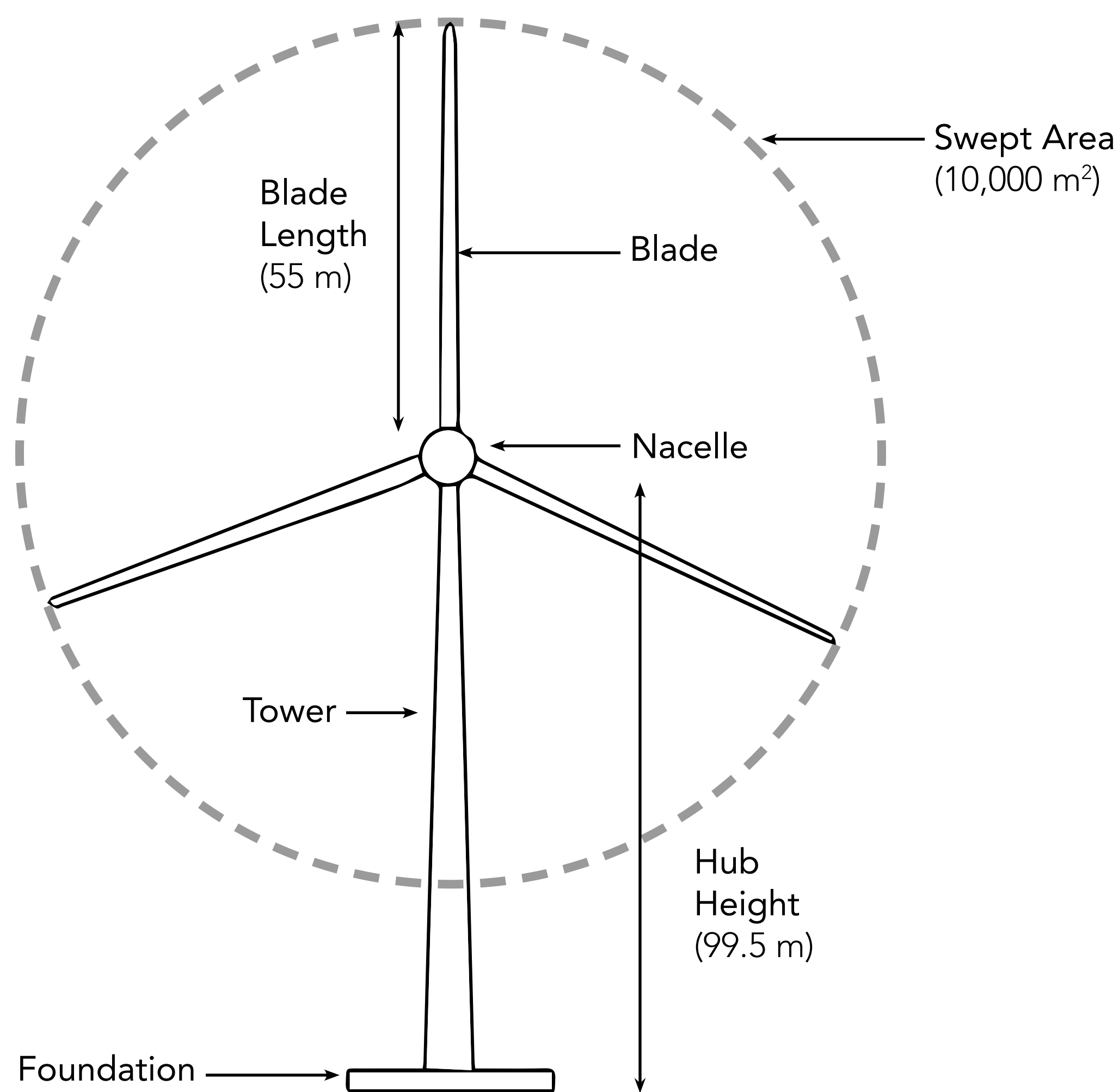
The Siemens SWT-3.2-113 wind turbine has a nominal power rating of 2.3 to 3.2 MW.

Each turbine tower is anticipated to have an underground concrete foundation up to 25 metres wide and 2.5 metres deep.

The turbine has a hub height of 99.5 metres and rotor diameter of 113 metres.

The 'cut-in wind speed,' or when the wind turbines begin to spin, is 3 to 5 metres per second.

The 'cut-out wind speed,' or when the wind turbines automatically stop spinning, is 32 metres per second.



Construction Activities

Overview Of Construction Activities

Site Preparation

- » Staking and surveying, clearing and grubbing
- » Preparation of construction staging areas

Construction of Facility

- » Construction of access roads (8 to 15 metres with shoulder during construction)
- » Installation of foundations for turbines (25 metre diameter)
- » Base preparation for substation (approximately 7 acres)
- » Wind turbine, substation and interconnection station installation
- » Construction of operations and maintenance building
- » Installation of collector lines
- » Testing and commissioning

Site Restoration

- » Removal and disposal of all construction materials and temporary facilities
- » Backfilling of topsoil where appropriate to achieve proper drainage
- » Re-vegetation where needed

Traffic and Roads

- » Belle River Wind will work with the Town of Lakeshore and County of Essex to develop a traffic management plan. This plan will ensure that:
 - Only designated transportation routes will be followed
 - Proper signage for detours will be prominently displayed
 - Traffic controllers and police escorts will be used as necessary

Safety

- » Fencing and signs will be used to mark off construction zones

Potential Effects And Mitigation Measures During Construction

- » The potential effects during the construction phase will mainly be related to dust, noise and traffic congestion
- » Dust will be mitigated by using best management practices including dust suppressants, implementing a speed limit and re-vegetating cleared areas as soon as possible
- » Noise will be mitigated by keeping all equipment in good repair and not exceeding noise limits specified by the Ministry of the Environment and Climate Change
- » Traffic congestion will be mitigated by developing a traffic management plan in coordination with the Town of Lakeshore and County of Essex



Operations And Maintenance Activities

Overview Of Operations And Maintenance Activities

- » Real-time monitoring of the Project will occur locally and remotely to maintain the performance and safety of the wind turbines
- » Performance and reliability will be maintained through a state-of-the-art Supervisory Control and Data Acquisition system
- » Routine and unplanned maintenance of Project components will be undertaken
- » An Emergency Response and Communication Plan is outlined in the Draft Design and Operations Report
- » The anticipated lifespan of the Project (commercial operation) is 20 years
- » Following the term of the agreement, a decision will be made to extend the life of the facility or to decommission



Potential Effects And Mitigation Measures During Operations And Maintenance

- » Post-construction monitoring of potential environmental impacts will be completed at this facility
- » The potential effects during the operation phase will mainly be related to wildlife and noise
- » Wildlife effects will be mitigated through lighting that is least likely to attract birds and/or bats
- » Noise will be mitigated by following Ontario regulations for minimum setbacks and turbines will be monitored remotely or from an operation centre to ensure they are operating effectively



Decommissioning Activities

Decommissioning Of The Project

It is anticipated that the Project will have a commercial operational life of 20 years, which could be extended further with proper maintenance, component replacement and repowering.

At the end of the Project's operational life, all components will be shut down and isolated from external electrical lines.

Belle River Wind is responsible for all aspects of the decommissioning of the Project, including the associated costs.

Overview Of Decommissioning Activities

- » Removal of the wind turbines for re-use or disposal
- » Removal of foundations and any access roads not wanted for future farming purposes
- » Replacement of subsoil and topsoil to match the undisturbed land
- » Former agricultural lands will be restored to allow agricultural activities to continue
- » Minimize environmental impacts related to decommissioning activities through the use of best management practices

Potential effects and mitigation measures during decommissioning are expected to be similar to those during construction.



Archaeological Assessments

Assessment Summary

A Stage 1 archaeological background study was conducted to determine the archaeological potential of the Belle River Wind Project Study Area. Following the recommendation from the Ministry of Tourism, Culture and Sport, a Stage 2 archaeological assessment was also completed.

Over 2,900 acres of land were assessed.

The Stage 2 archaeological assessment identified 29 locations with cultural material. Ten (10) of the 29 archaeological locations exhibited cultural heritage value or interest.

Only one (1) location is within the footprint of the Project.

Mitigation Measures:

- » The ten (10) locations that exhibited cultural heritage value or interest were recommended for a Stage 3 site-specific archaeological assessment. A Stage 4 archaeological assessment will be undertaken, if required
- » Sites located within the Project Location will be surrounded by a 20 metre protective buffer where no ground alteration activities will take place
- » Where required, a licensed archaeologist will monitor construction activities

By using these mitigation measures, no significant negative effects to archaeological resources are expected.



Heritage Impact Assessment

Assessment Summary

Cultural heritage landscapes are geographical areas that may have been modified by human activity and are identified as having cultural heritage value or interest by a community, including an Aboriginal community.

A total of 19 built heritage resources within the Project Location (14 residences and five (5) barns) are older than 40 years. Of these, nine (9) resources (four (4) houses and five (5) barns) were identified to have potential cultural heritage value or interest. None of the nine (9) resources are designated as protected sites.

No mitigation is recommended as it was determined that there are no expected direct or indirect negative effects as a result of the Project.



Natural Heritage

Assessment Summary

A review of available background resources was completed to identify any potentially significant natural features such as woodlands, wetlands and Significant Wildlife Habitat within 120 metres of the Project Location.

Site investigations were conducted and included planning and undertaking field work, compiling records and reporting results.

The significance of each natural feature within 120 metres of the Project Location was evaluated using Ministry of Natural Resources and Forestry accepted standards, guidelines and literature.

Potentially significant natural features included:

- » 12 wetlands
- » 123 candidate (i.e., treated as significant though not yet confirmed) Significant Wildlife Habitat
- » 25 woodlands

Based on the implementation of the planned mitigation measures (described on the next panel), monitoring programs and contingency plans, it is unlikely that there will be any significant impacts to natural heritage features.

Monitoring of potential post-construction environmental impacts will be completed at this facility.



Natural Heritage

Potential Effects And Mitigation

The table below presents a summary of the potential effects on natural heritage features and mitigation measures.

Potential Effect	Mitigation Measure
Damage or loss of woodlands, wetlands and other natural features	» Develop and implement a sediment and erosion control plan » Store stockpiled material more than 30 metres from a wetland, woodland or water body » Implement fugitive dust suppression techniques
Soil compaction	» Minimize vehicle traffic on exposed soils » Minimize paved surfaces and design roads to promote infiltration
Soil or water contamination	» Develop a Spill Response Plan » Store hazardous materials in designated areas and dispose of waste material by authorized vendors » Locate all maintenance activities, vehicle re-fuelling or washing, as well as the storage of chemical and construction equipment more than 30 metres from significant features
Disturbance and/or mortality to local wildlife	» Schedule construction activities near significant wildlife habitat to take place outside of sensitive timing windows for wildlife (e.g., breeding season and migration period) » Post and enforce construction speed limits
Damage or removal (including accidental instances) of vegetation and increased species competition	» Install protective fencing or other barrier » Re-vegetate cleared areas as soon as reasonably possible » No use of herbicides (Project-related activities only) within 30 metres of significant features or wildlife habitat » Vehicle use will occur primarily on access roads and in agricultural habitats, where invasive and non-native vegetation species are less likely to be concentrated
Changes in water levels, temperature and drainage	» Control quantity and quality of stormwater discharge using best management practices » Restrict taking of groundwater and surface water during extreme low flow time periods

For more details on potential effects and mitigation measures, please refer to the Natural Heritage Assessment – Environmental Impact Study Report available at www.belleriverwind.ca.

Water Bodies

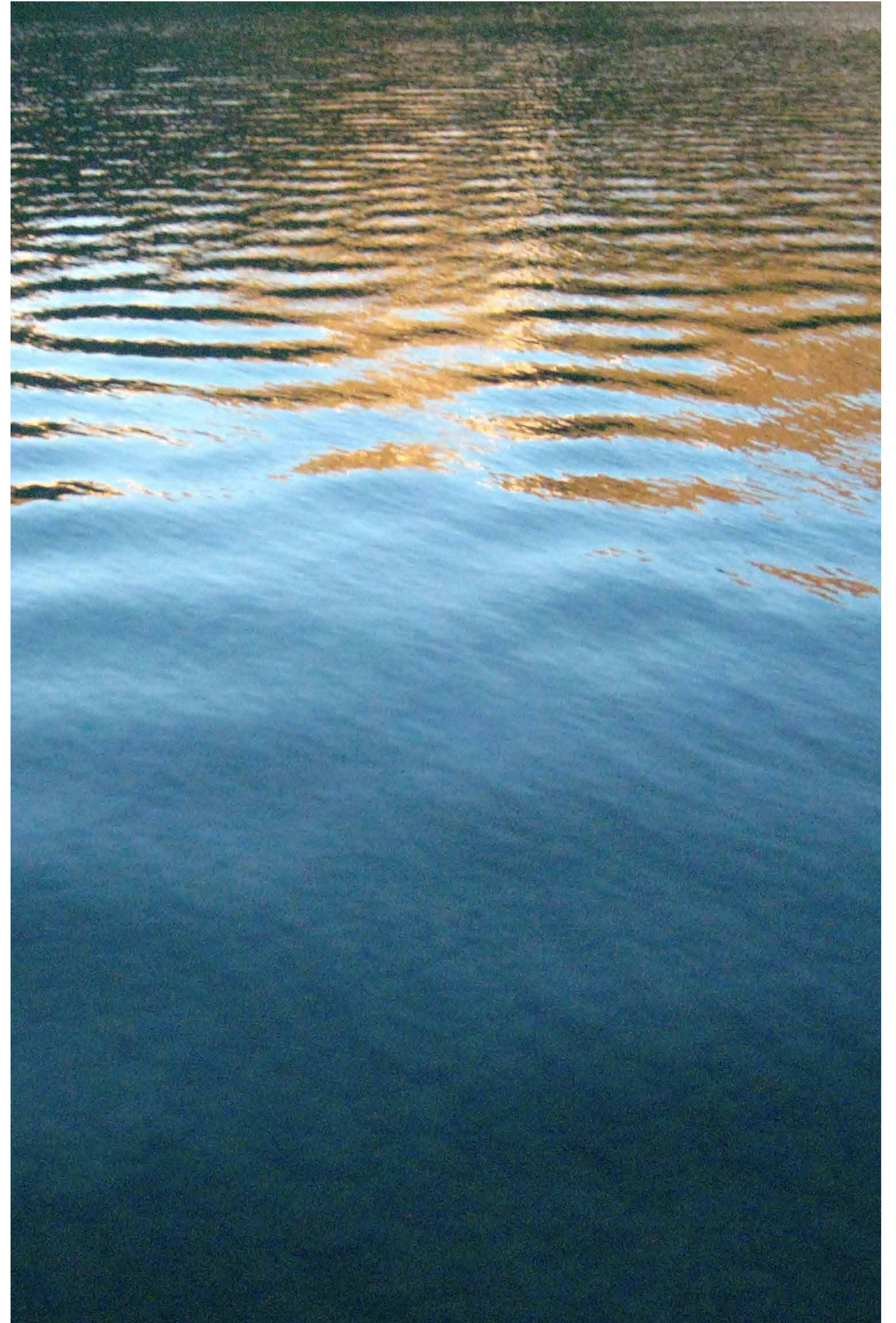
Assessment Summary

An assessment of the water bodies (i.e., lakes, seepage areas, intermittent / permanent watercourses) within 120 metres of the Project Location was conducted to identify potential impacts to water bodies from the Project.

38 water bodies were identified within the Project Study Area, all of which were intermittent / permanent watercourses.

33 of these water bodies cross the Project Location, totaling 73 individual crossing locations.

If mitigation measures shown on the following panel are followed, no significant impacts to water bodies are anticipated.



Water Bodies

Potential Effects And Mitigation

The table below presents a summary of the potential effects on water bodies and mitigation measures.

Potential Effect	Mitigation Measure
Increased erosion, sedimentation and turbidity	» Develop and implement a sediment and erosion control plan » Avoid construction during high volume rain events and significant snow melts, and resume once soils have stabilized » Minimize disturbance to banks of the watercourse and stay outside of the watercourse and bank area » Horizontal directional drilling should be executed in such a manner as to limit the potential of a frac-out » Develop and implement an emergency frac-out response plan
Soil compaction and increase surface runoff	» Restrict construction equipment to designated, controlled vehicle access routes » Develop a Flood Response Plan
Serious harm to fish or fish habitat from physical changes to the stream channel, streambed and riparian vegetation	» Implement riparian planting after construction to stabilize watercourse channel banks and encourage rapid re-vegetation of disturbed soils » Develop fish habitat compensation measures, as required, should serious harm to fish habitat be anticipated » During surface water dewatering, collect and relocate fish to a suitable location
Minor, isolated, short term dewatering of shallow groundwater from excavation areas	» Prior to dewatering, evaluate anticipated discharge rates and estimated zone of influence to ensure the volumes will not impact water body hydrologic function
Water contamination	» Remove construction debris from the site and stabilize it to prevent it from entering the nearby water bodies » Perform in-water work (if required) in the dry where possible » Ensure machinery arrives on site in clean condition and is checked and maintained free of fluid leaks » Store fuel and other construction related materials away from any drainage features and locate construction staging areas 30 metres away from any water body » Develop a Spill Response Plan

For more details on potential effects and mitigation measures, please refer to the Water Body Report available at www.belleriverwind.ca.

Noise Impact Assessment

Assessment Summary

A Noise Impact Assessment was completed to identify noise levels at receptors within 1,500 metres of the wind turbines or the collector substation.

The assessment was comprised of the following steps:

STEP 1

- » Identify receptors that are within 1,500 metres of wind turbines or the collector substation

STEP 2

- » Obtain wind turbine specifications and noise emission ratings from the manufacturer

STEP 3

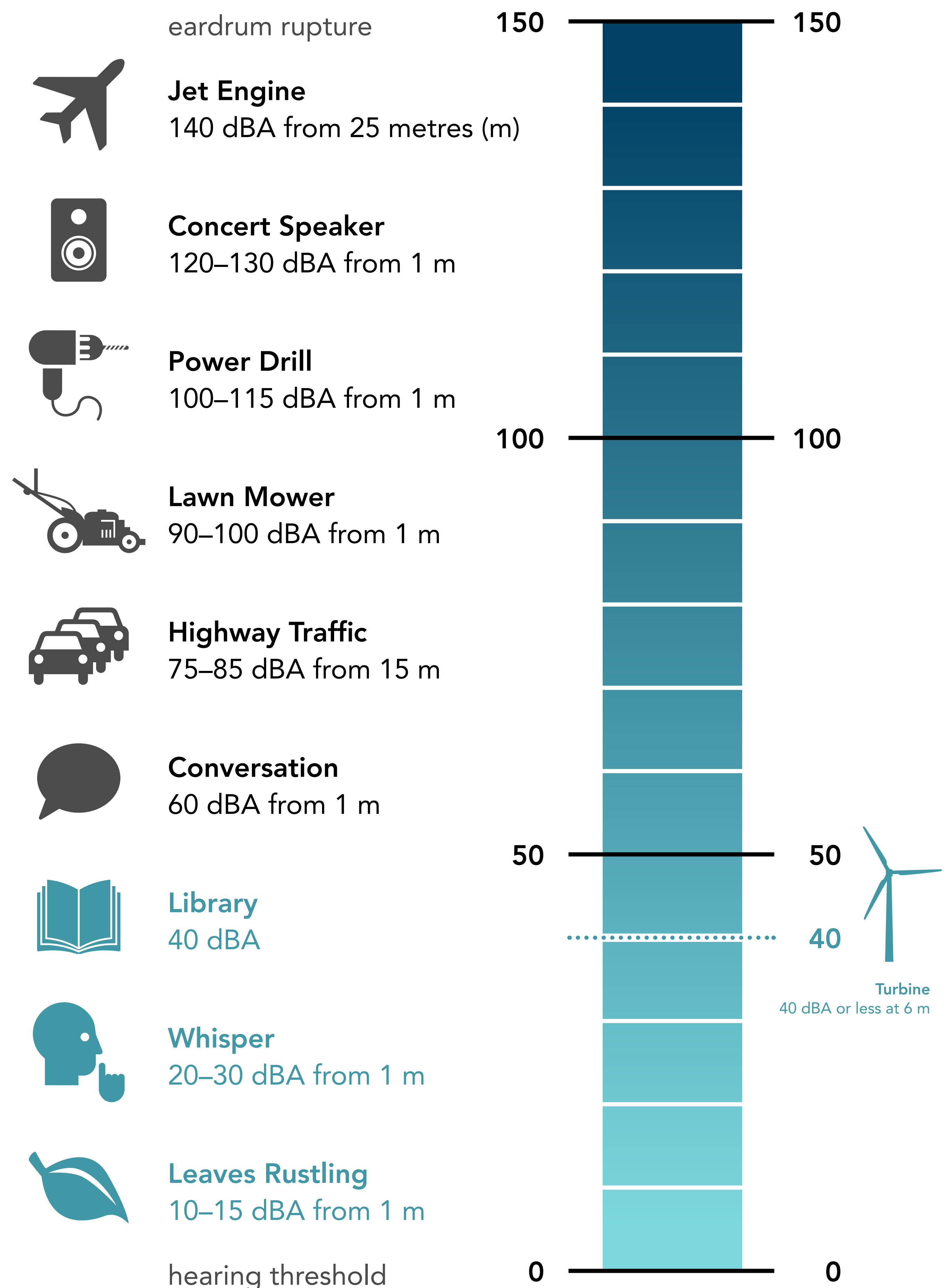
- » Incorporate the turbine and substation locations and sound power levels into a noise model to predict overall noise levels at each point of reception

STEP 4

- » Adjust turbine locations during modelling to minimize noise levels at identified receptors

The results of the Noise Impact Assessment show that the Project complies with the Provincial Noise Guidelines.

Decibels (dBA) Of Common Sounds

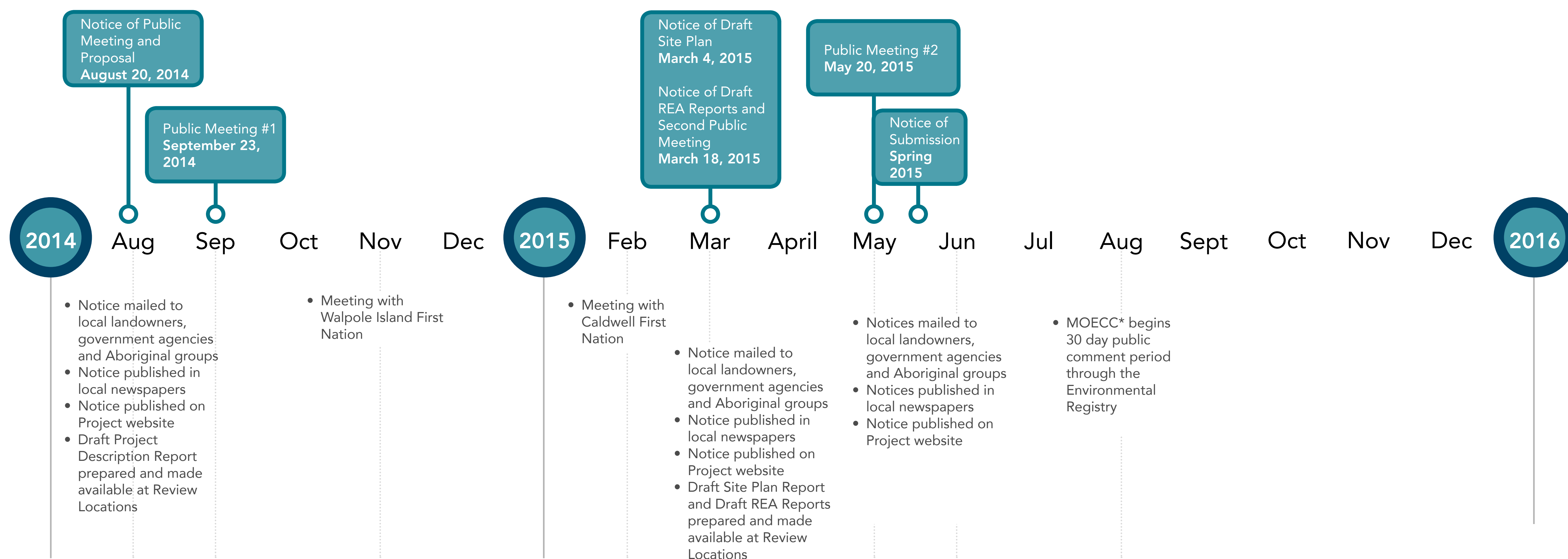


Consultation And Engagement

Belle River Wind believes that your input is an important part of the REA process. All consultation and engagement activities will be reflected in the Consultation Report which will be submitted with the REA application.

Key Consultation and Engagement Milestones

- » Draft Project Description Report made available for public and Aboriginal review – August 20, 2014
- » Public Meeting #1 – September 23, 2014
- » Draft REA Reports sent to the Town of Lakeshore and County of Essex – February 13, 2015
- » Draft Site Plan Report made available for public and Aboriginal review – March 4, 2015
- » Draft REA Reports made available for public and Aboriginal review – March 18, 2015
- » Public Meeting #2 – May 20, 2015
- » REA Application submitted to the Ministry of the Environment and Climate Change – Spring 2015
- » Ministry of the Environment and Climate Change deems the application complete and begins 30 day public comment period through the Environmental Registry – Summer 2015
- » Targeted REA approval – Winter 2016



*MOECC – The Ministry of the Environment and Climate Change

Thank You

For Attending the Second Belle River Wind Project Public Meeting

Next Steps for the Project:

- » Summarize and respond to feedback received at this Public Meeting
- » Finalize REA Reports and submit to the Ministry of the Environment and Climate Change as part of the REA application
- » Review of the Final REA Reports by the Ministry of the Environment and Climate Change and the public
- » Minister of the Environment and Climate Change makes a decision about whether to approve the REA application

We value your feedback and want to hear what you think. Please help yourself to some refreshments and complete a comment sheet before you leave or send it to us before May 27, 2015.

To learn more about the Project or to provide feedback, please visit our Project website via the following link: www.belleriverwind.ca or contact us via the following email address: info@belleriverwind.com.