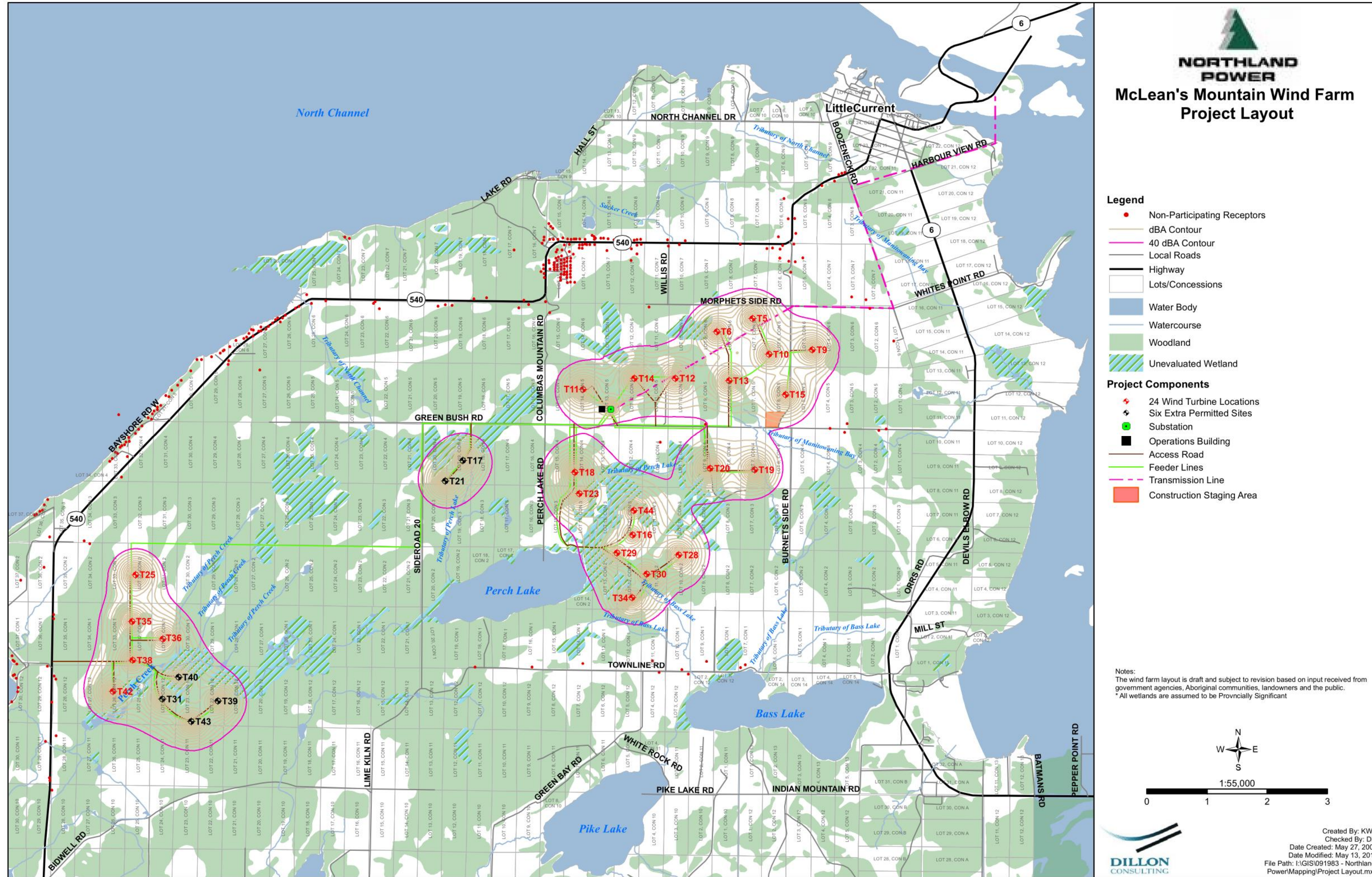


Results from Sound Study



New Studies since last PIC



The following studies are in addition to all the requirements that were met for the ESR. These studies were completed in response to current criteria set by various ministries to meet the Renewable Energy Approvals.

- Final **Stage 2 Archaeological Studies** completed;
- **Environmental Impact Studies**, including a Water Bodies study;
- **Breeding Bird Survey** – an assessment of interior woodland and open country areas
- **Species at Risk Survey** – based on consultation with the MNR certain species with a potential to occur in the area were further assessed for presence;
- **Wetland Evaluation and Boundary Delineation** – wetlands within 120 m of project components were evaluated and their boundaries delineated using MNR approved protocols;
- **Amphibian Monitoring** – wetland areas within 120 m of project components were assessed to determine presence/absence and relative abundance of species;
- **Raptor Stick Nest Survey**- the presence of raptor stick nests were documented within woodland areas adjacent to project components;
- **Bat Maternity Roost Assessment** (presence/absence of snags) – the presence of snags, which function as bat maternity roost habitat was evaluated; and
- **Short-eared Owl Survey** – a recent occurrence of this species was observed in the winter of 2010. Observations are being completed to determine if it is nesting and what habitat areas are being used for foraging.

Natural Heritage Assessment



Records Review and Site Investigation

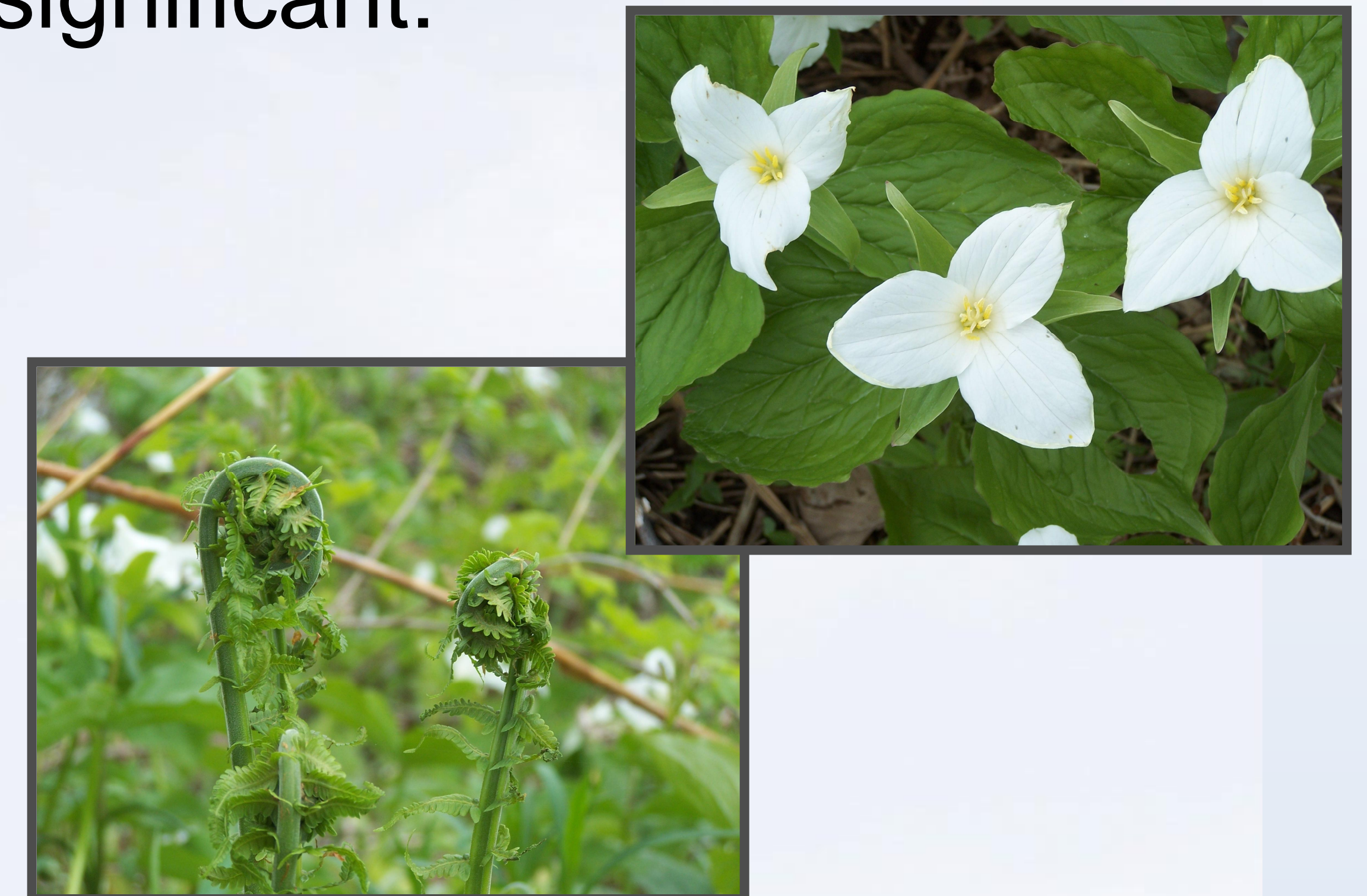
- A records review and site investigation for natural features within 120 m of the project location was conducted between 2005 and 2011. Studies completed for this work included:
 - Ecological Land Classification;
 - Vegetation Survey;
 - Wetland Boundary Delineation;
 - Breeding Bird Surveys (June/July 2007, 2008 & 2010);
 - Spring Migration Survey (April/May 2005 & 2008);
 - Fall Migration Survey (September/October 2004 & 2009);
 - Winter Birds (January/February/March 2007);
 - Amphibian Surveys (2011);
 - Species of Conservation Concern Surveys (2010);
 - Bat Surveys (Jul/September 2008);
 - Raptor Stick Nest Survey (2011); and
 - Snag Survey (2011).

Natural Heritage Assessment

- All surveys have been conducted in consultation with the Ministry of Natural Resources and/or Environment Canada.
- Site investigation field work confirmed the boundaries of wetlands, woodlands and candidate wildlife habitat.

Evaluation of Significance

- Based on an evaluation of significance, using the criteria outlined by the Ministry of Natural Resources and Ontario Regulation 359/09, specific natural features within 120 m of the project location were identified as significant:
 - Wetlands within the Perch Creek watershed;
 - Raptor Wintering Feeding and Roosting Area;
 - Two areas of Common Juniper Shrub Alvar;
 - Mink and Otter Feeding Denning Sites;
 - Amphibian Breeding Habitat;
 - Turtle Nesting and Over-wintering Areas;
 - Area-sensitive Forest Birds;
 - Open Country Breeding Birds; and
 - Species of Conservation Concern (Cooper's Milkvetch & Northern Long-eared Bat).



Environmental Impact Study

Results Summary

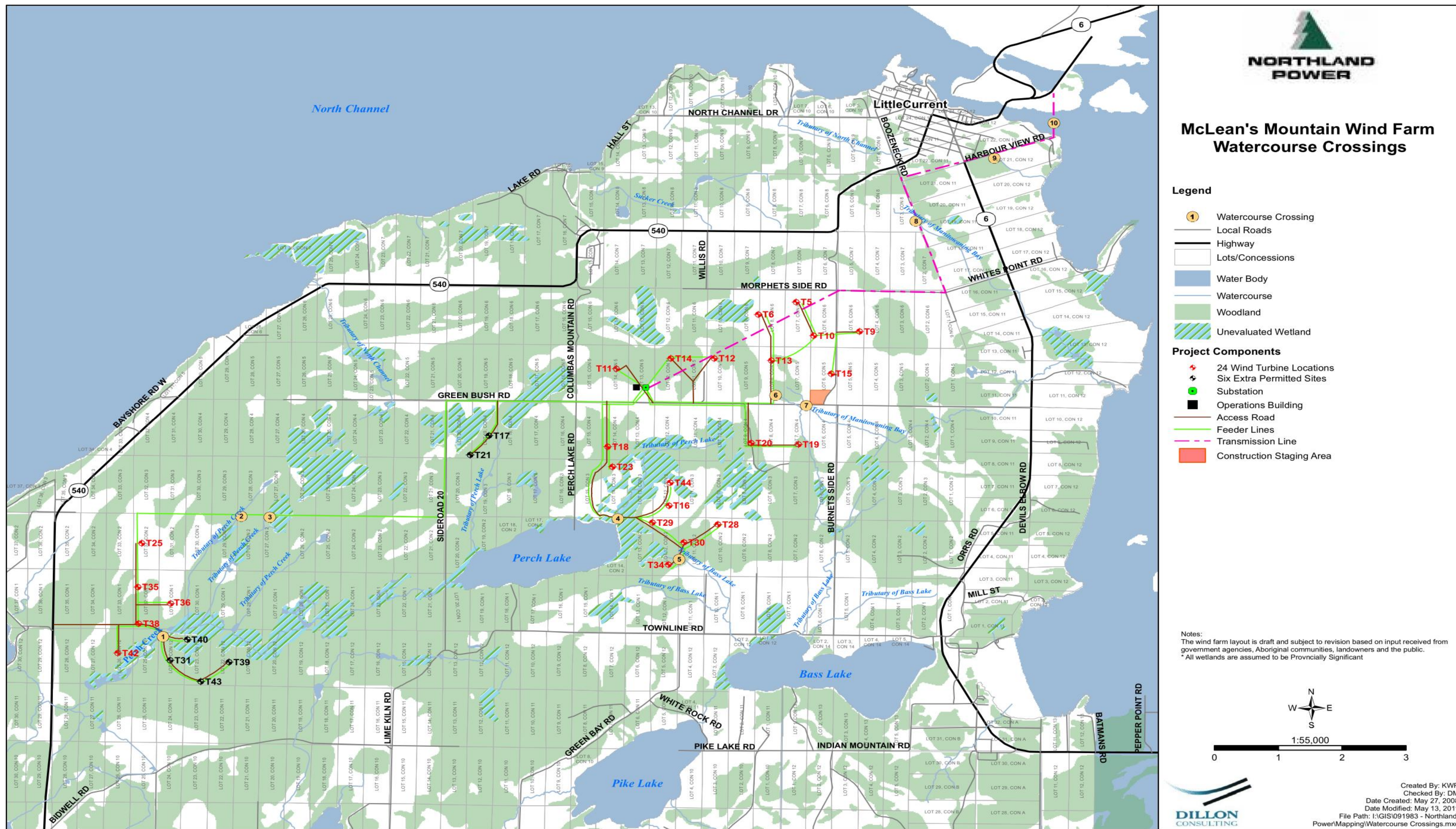


Activity	Potential Negative/Positive Effect(s)		Mitigation Measures	Residual Effects	
	Physical	Functional			
Vegetation Removal and Grubbing Trenching for Feeder Line Excavation of Turbine Base	Potential increased erosion, sedimentation and turbidity; decreased shade, cover and diversity of vegetation on adjacent lands to wetland units with a buffer of less than 15m (i.e. #3, 12, 13, 23 and 25)	Decreased photosynthesis, loss of productivity, loss of wildlife habitat, loss of food organisms, and avoidance of areas by wildlife; changes in wildlife species composition and abundance; smothering of upland and wetland vegetation	Maintain or restore vegetative buffers Specific replacement plantings & restoration adjacent to wetland unit #3, 12, 13, 23 & 25 Develop and implement an erosion and sediment control plan before removing vegetation Fencing of boundary between wetland buffer and area to be cleared to prevent encroachment Burry feeder line within access road footprint (where it is desirable to do this)	No Residual Effect provided: appropriate construction monitoring occurs; erosion and sediment control structure is maintained; buffer area at edge of wetland unit #3, 12, 13, 23 & 25 is strengthened & rehabilitated	
	Loss of vegetation, vegetation cover and wildlife forage habitat	Direct loss of habitat (important food sources and cover); reduction in contiguous habitat; reduced corridor function;	Reduce clearing to the degree possible & restrict during the core breeding season (May 1 to July 30); Where vegetation clearing is unavoidable during the core breeding season, conduct a bird nest search prior to clearing and buffer nest identified;	Allow vegetation to regenerate in areas surrounding turbines and access roads in a manner that doesn't disturb operations (e.g. increased canopy closure, low growing herbaceous material on roadbed, etc.)	Minimal Residual Effect where less than a 15 m buffer is maintained adjacent to natural feature (i.e. #3, 12, 13, 23 and 25)
		Greater exposure of wildlife to predation through the opening of interior habitat to increased predator activity	Re-vegetate disturbed edges adjacent to wetland units #3, 12, 13, 23 and 25 with fast growing competitive nurse crop to reduce non-native species from becoming established		Minimal Residual Effect – as predators are common in the area and have access to this area already.
		Increased vulnerability of the site to invasion by non-native species	Re-vegetate disturbed edges adjacent to wetland units #3, 12, 13, 23 and 25 with fast growing competitive nurse crop to reduce non-native species from becoming established		Minimal Residual Effect
Loss of Cooper's Milkvetch	The individual was the only one observed in the study area	Transplant Cooper's Milkvetch from area around Turbine 30 and plant other individuals within appropriate habitat	No Residual Effect		
Access Roads	Increase in the volume of surface water runoff entering adjacent environments during peak flows; reduced infiltration	Changes in wetland, and upland vegetation communities	Design roads to promote infiltration (e.g. use of gravel materials); Maintain or provide vegetative buffers;	Minimal Residual Effect – road area small, thus marginal decrease in localized infiltration expected; negligible change to surface water runoff volumes expected from pre-development conditions	
	Increased erosion, sedimentation and turbidity from increased peak flows; increased inputs of nutrients and contaminants to wetland and upland vegetation				
	Increase of available nesting habitat from road materials (e.g. side slopes)	Potential increase predation Potential for increased road kill	Construction staff to be knowledge able in the potential presence of turtles and nesting areas; Reduced speeds in certain areas during seasonal nesting; Erection of road signs identifying above Fencing of stockpiles during nesting season to prevent nesting	Minimal Residual Effect	
Underground Transmission Line – Goat Island	Disturbance of adjacent habitat and potential for sedimentation of alvar vegetation	Reduction in quality of habitat and germination of seeds	Fencing of construction boundary to prevent encroachment into significant portions of alvar communities (i.e. areas with sensitive plant species)	No Long-term Residual Effect	
	Trampling of adjacent vegetation during construction (10 m wide beside trench to facilitate equipment)				
Turbine Effects: Direct Mortality	Mortality of birds and bats due to contact with Turbines	Reduced survivorship of breeding birds;	Post-construction monitoring to assess impacts of turbines on bird and bat populations (see Appendix B) for the purpose of advising on mitigation strategies to be used as part of an adaptive management plan	Minimal Residual Effect	
Turbine Effects: Displacement of breeding birds	Turbines may displace open country grassland and area-sensitive forest breeding bird species	Reduced recruitment Reduction in breeding area available in local environment	Post-construction monitoring to assess the displacement effect on open country grassland and area-sensitive forest breeding bird species for the purpose of advising on mitigation strategies to be used as part of an adaptive management plan	Minimal Residual Effect	

Species at Risk

- Through field work and consultation with the Ministry of Natural Resources the project is known to contain areas of the following species at risk habitat:
 - *Snapping Turtle;*
 - *Short-eared Owl;*
 - *Houghton's Golden Rod; and*
 - *Bobolink.*
- The project will be constructed, operated and decommissioned in a manner that protects Species at Risk and their habitat as required by the *Endangered Species Act, 2007.*

Water Crossing Locations



NORTHLAND POWER

McLean's Mountain Wind Farm Watercourse Crossings

Legend

- ① Watercourse Crossing
- Local Roads
- Highway
- Lots/Concessions
- Water Body
- Watercourse
- Woodland
- Unevaluated Wetland

Project Components

- 24 Wind Turbine Locations
- Six Extra Permitted Sites
- Substation
- Operations Building
- Access Road
- Feeder Lines
- Transmission Line
- Construction Staging Area

Notes:
 The wind farm layout is draft and subject to revision based on input received from government agencies, Aboriginal communities, landowners and the public.
 * All wetlands are assumed to be Provincially Significant

Scale: 1:55,000

Created By: KWR
 Checked By: DM
 Date Created: May 27, 2008
 Date Modified: May 13, 2011
 File Path: I:\GIS\091983 - Northland Power\Mapping\Watercourse Crossings.mxd

DILLON CONSULTING



Water Bodies Study

- A site investigation of the lands within 120 m of a project component was undertaken to identify water bodies (i.e., lakes, permanent and intermittent streams, and seepage areas).
- No Lake Trout lakes or seepage areas were observed.
- Water bodies within 120 m of the project location consist of intermittent streams, Perch Lake and a crossing of the North Channel to Goat Island.
- No turbines or substations have been located within 120 m of a water body. It is primarily feeder lines, the transmission line, access roads and the construction staging area that crosses, or falls within, 120 m of a water body.
- Feeder lines and/or the transmission line crossings of intermittent and permanent streams will use overhead crossings (poles) or subsurface directional to avoid disruption to aquatic habitat.
- Access road crossings of intermittent and permanent streams will use culverts, corrugated steel pipe or clear-span bridge structures to avoid disruption to aquatic habitat.
- Construction within 120 m of a water body will use best management practices with respect to installation of crossing structures and erosion and sediment control measures.
- In-water construction will occur outside of sensitive fisheries timing windows and will follow Fisheries and Oceans Canada Ontario Operational Statements where applicable.

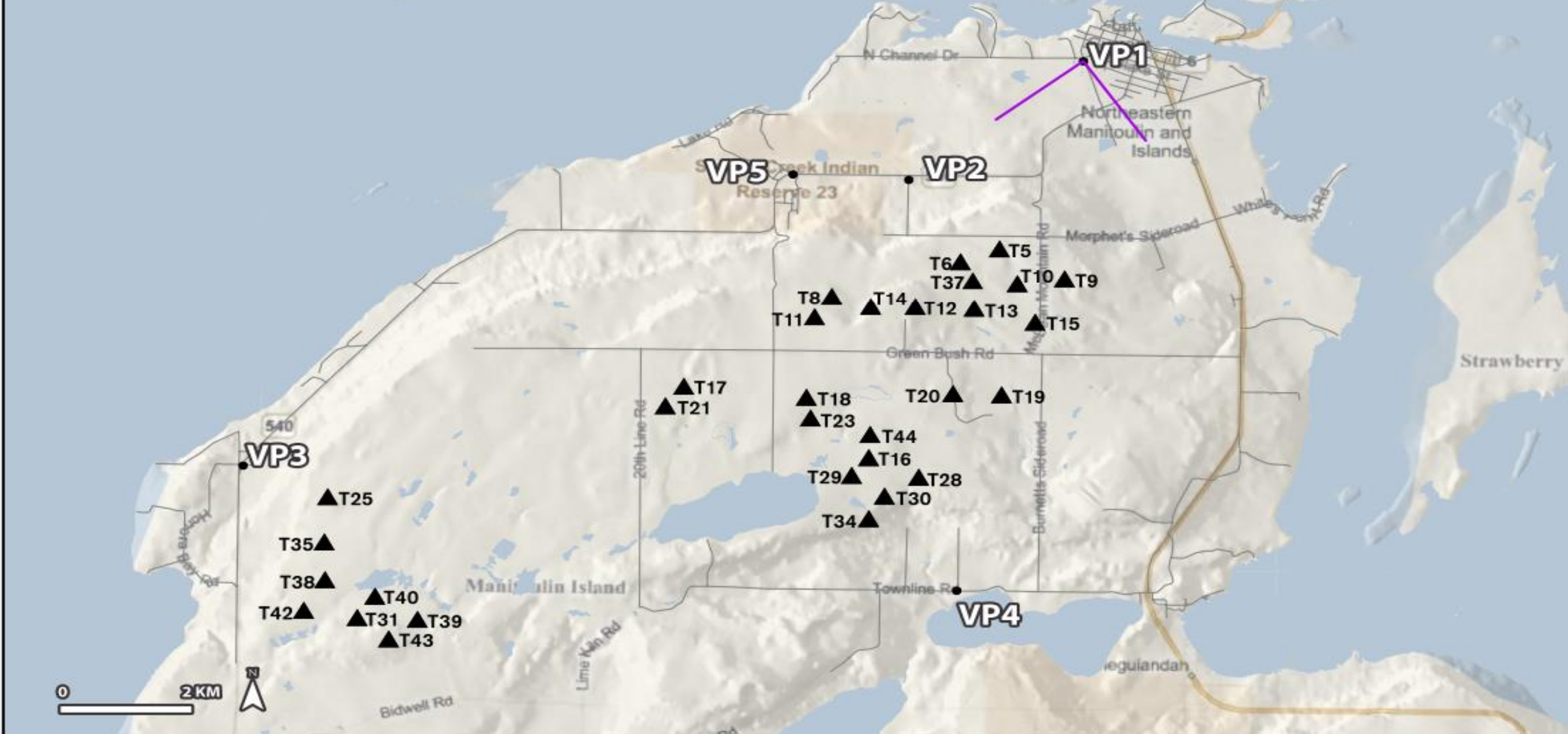
Selected Wind Turbines

- **GE wind turbines rated at 2.5 MW.**
- **Turbine utilizes gearbox and maintains constant speed.**
- **Three (3) blade up wind horizontal axis.**
- **Wind Turbine Tower Height of 100 metres.**
- **Tubular steel tower.**
- **Rotor diameter of 103 metres.**
- **Pitch control – optimizes power generation.**
- **Computer controlled microprocessor-based monitoring and control of all turbine functions.**
- **Lighting in accordance with Transport Canada regulations.**
- **Typical life span – over 20 years.**



Visual Simulation

Turbine & Vantage Point Locations



Vantage Point 1

Existing

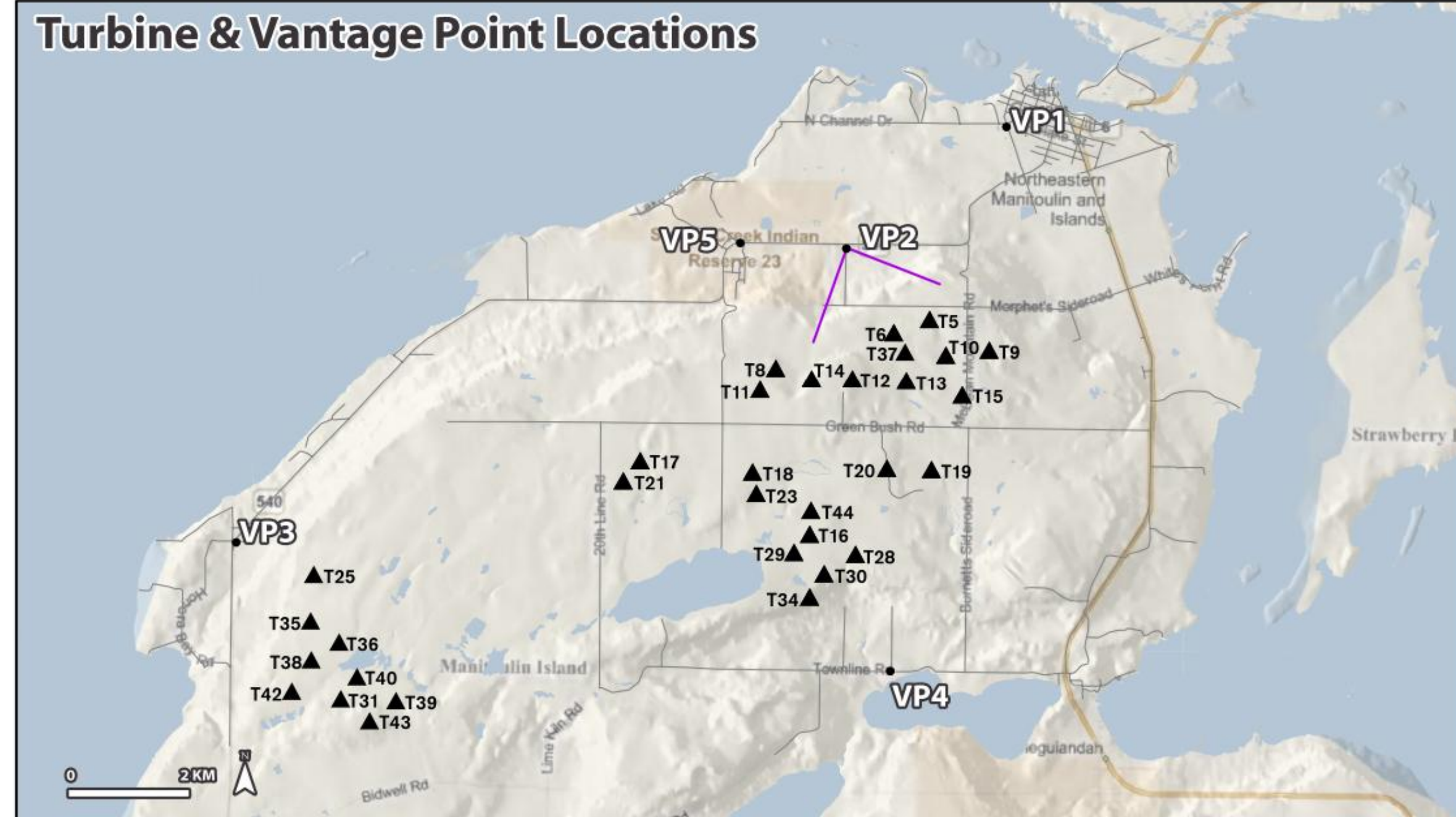


Realistic



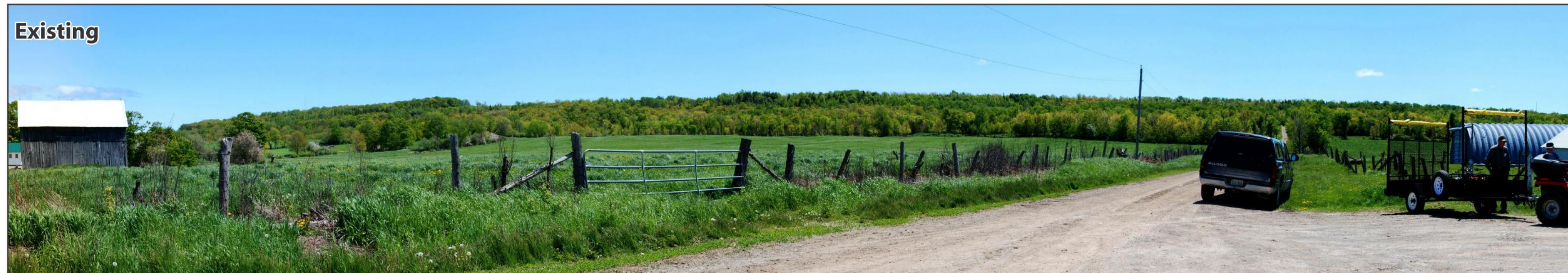
Visual Simulation

Turbine & Vantage Point Locations

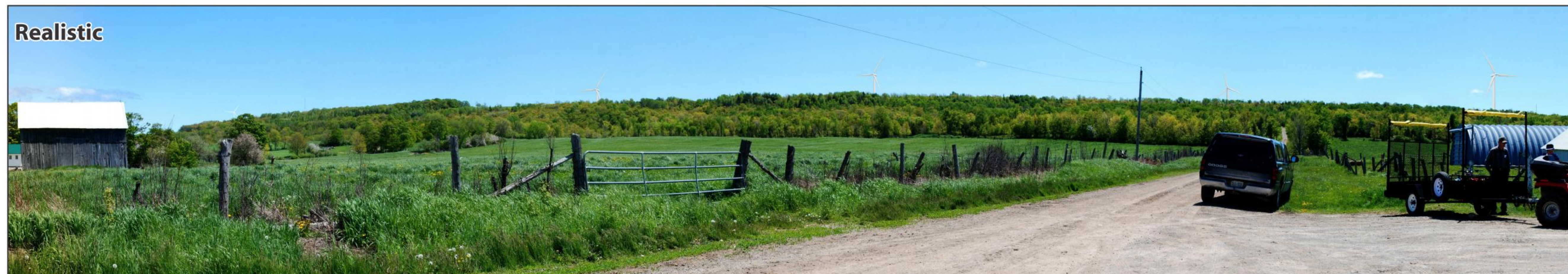


Vantage Point 2

Existing

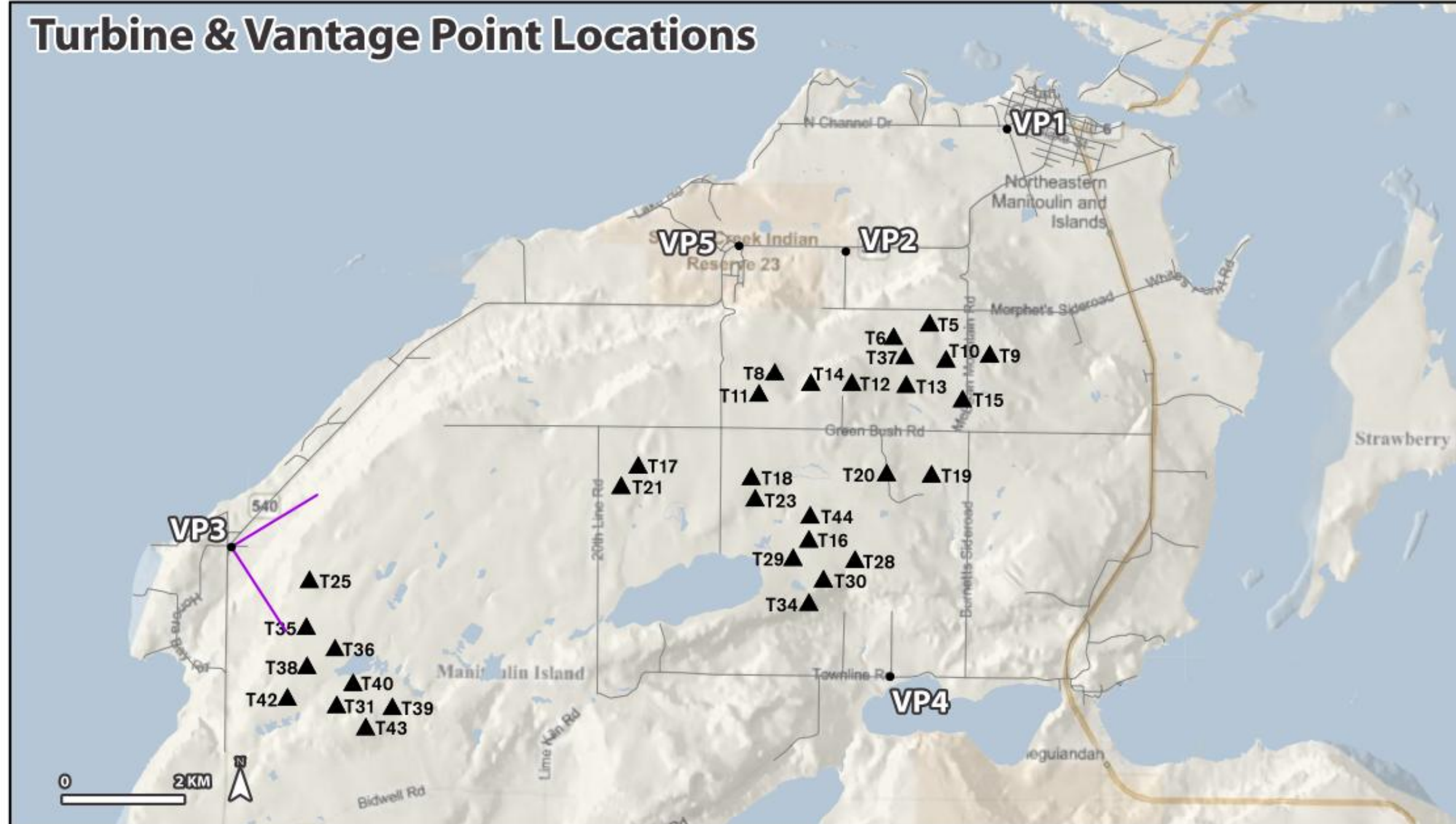


Realistic



Visual Simulation

Turbine & Vantage Point Locations

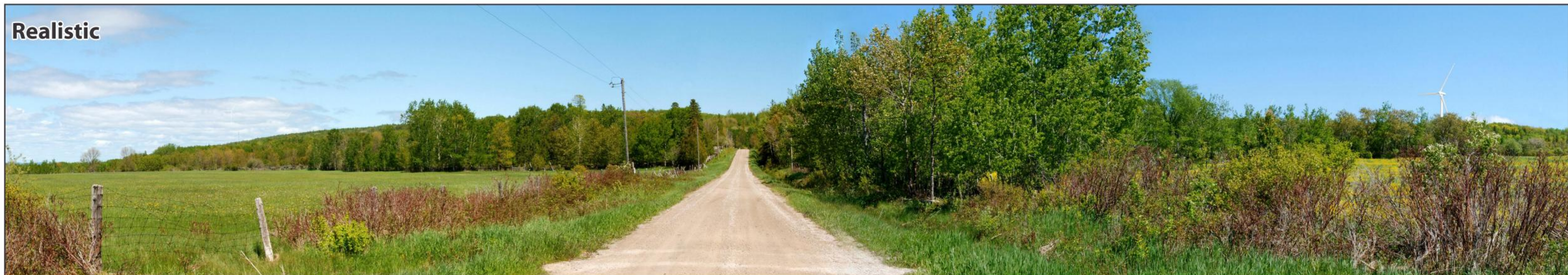


Vantage Point 3

Existing

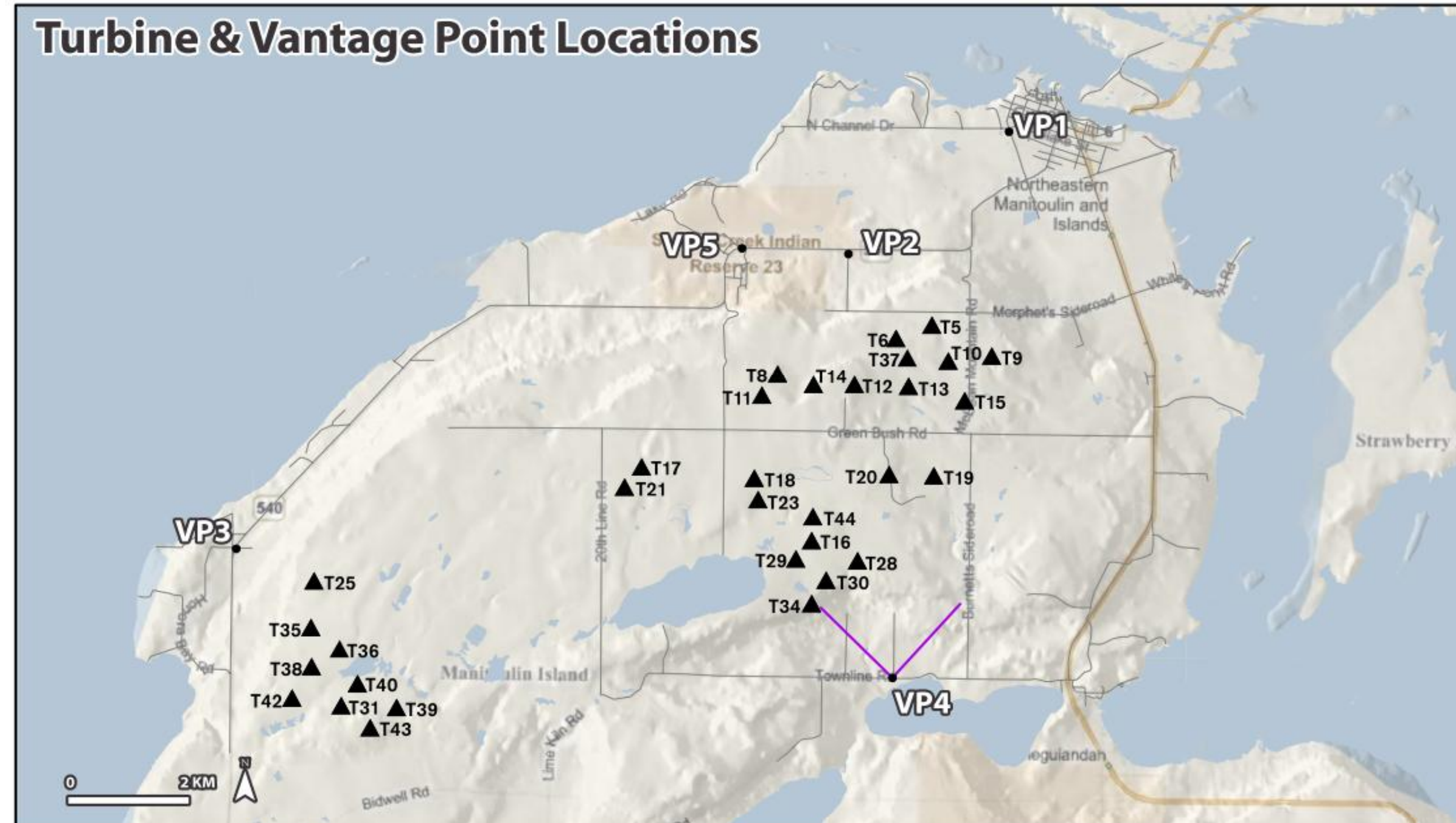


Realistic



Visual Simulation

Turbine & Vantage Point Locations



Vantage Point 4

Existing

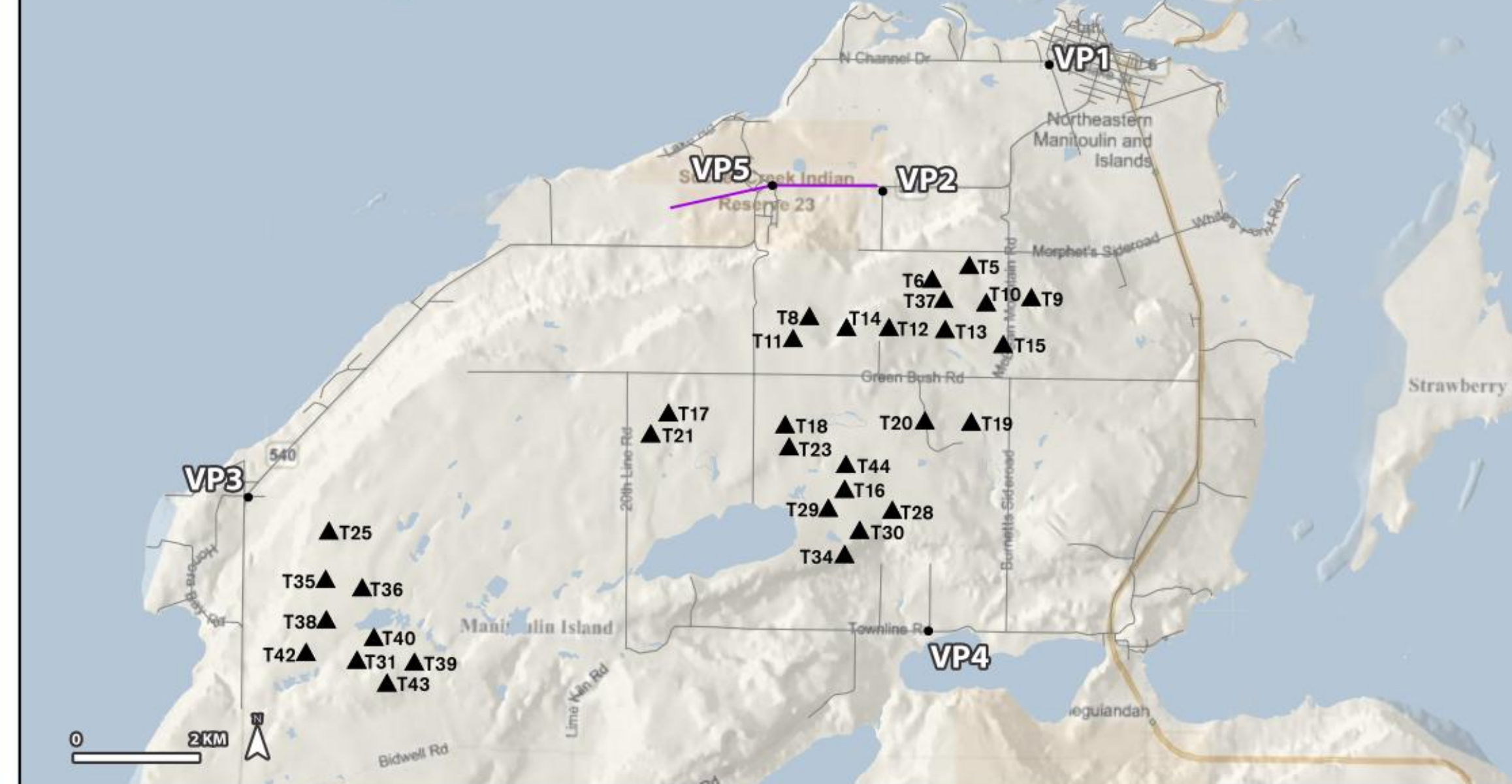


Realistic



Visual Simulation

Turbine & Vantage Point Locations



Vantage Point 5

Existing



Realistic



Environmental Management & Protection Plan (EMPP) Commitments

- To continue to keep the community informed of its project activities through local media.
- To develop the project in a manner that will minimize impacts on the environment.
- To conduct 3 year post-construction avian surveys and respond/mitigate, if necessary.
- Respond to reported concerns regarding the operation of the facility.
- To follow the Project Decommissioning Plan at end of project life.

Additional Permitting

- Other required project permits include:
 - MNR Work Permit for marine cable crossing of North Channel;
 - MNR Species at Risk permit;
 - Site building permits;
 - Transport Canada Navigable Waters permit;
 - Department of Fisheries and Oceans permit under the Fisheries Act for water crossings; and
 - NavCanada air navigation clearance.

Next Steps

- Renewable Energy Approval application to be submitted to the MOE in June/July 2011.
- Documentation will be released on the Environmental Bill of Rights when deemed complete by the MOE.
- Upon receiving the *Notice to Proceed from the MOE*, road clearing and site preparation will begin.



Thank You!



We would like to hear from you! Your input is important to us.

For your input to be considered as part of the REA approval application to the MOE, please provide your comments by May 25, 2011.

If you have any questions or comments, please fill out a questionnaire here tonight. Please ensure that you leave contact information so we can response to you.

As always, you can contact:

Rick Martin, Project Manager

Northland Power Inc. Little Current Office

McLean's Mountain Wind Farm Office

P.O. Box 73

Little Current ON, P0P 1K0

Tel: (705)271-5358 cell

(705)368-0303 Manitoulin Island Office

E-mail: ***rickmartin@northlandpower.ca***



Complete Comment Sheets



May 18/11

NORTHLAND POWER

**McLean's Mountain Wind Farm
Public Information Centre
May 18, 2011**

COMMENT SHEET

The more I see the scope of this project the more it makes me sick. These Honora windmills will totally impact our farm and home life. The height of the proposed windmills will totally kill our main view. The lights will glow like a city. The sound will always be interruptive.

Even more important, every person who drives down 546 and all who boat across the north shore will lose the beauty of Manitoulin.

I do not agree that proper medical studies have been done on windmills. We know that European countries (like Holland) are removing the turbines from land and ^{putting them} far out into the North Sea (I've seen them) because of health, social and environmental issues.

I am not against windpower, solar power, etc. but only against the loss of a precious commodity called "Manitoulin's peaceful heritage." Very few areas have it. Why, why, why? Allow such a waste for a bit of money. ~~Take~~ the windmill farms where there is already a mess of noise, light, people down

Please return this completed Comment Sheet to the project team at the Registration Table or you can fax it or mail it by May 25th, 2011 to: south where the power will be going to. Build down there!

Rick Martin, Project Manager

Northland Power Inc. Little Current Office
McLean's Mountain Wind Farm Office
P.O. Box 73
Little Current ON, P0P 1K0

Tel: (705)271-5358 cell, (705)368-0303 Manitoulin Island Office
E-mail: rickmartin@northlandpower.ca

Not on our
Manitoulin

Shanks,
Dulana Jensen ^(C.O.) 2



NORTHLAND POWER

McLean's Mountain Wind Farm
Public Information Centre
May 18, 2011

COMMENT SHEET

THANK YOU for attending our Public Information Centre. We are interested in hearing your comments, questions, concerns and suggestions regarding the proposed project. Please take a few minutes and provide us with your thoughts on the information presented here this evening. Comments received will be considered during completion of the study process.

It is so sad to see Montserrat
in the process of being decimated.
I have no blame for the farmers who stand
to gain a little money for the turbines on
their lands. Even the company trying to put them
up is but a pawn in the hand of the
Southern Ont. public (& government). There is no
honest concern for anywhere in the north and
especially not for Abitibi.

This project should not continue. Move
it to a less serene area.

Do proper studies. Forget the "opinions."
That is all I saw and heard from
Northland Power's presentation tonight.

Thank you -



NORTHLAND POWER

**McLean's Mountain Wind Farm
Public Information Centre
May 18, 2011**

COMMENT SHEET

No IRON MONSTERS!
GET UCCM Chiefs to get
100% support for wind turbine
from its elected people.
This is NO BACK ROOM DEAL!
Enough of History Repeating itself!
We love Mother Earth!
We love Manitoulin Island
which is the Creator's Dew!

Please return this completed Comment Sheet to the project team at the Registration Table or you can fax it or mail it by May 25th, 2011 to:

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McLean's Mountain Wind Farm Office
P.O. Box 73

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NORTHLAND POWER

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Public Information Centre
May 18, 2011**

COMMENT SHEET

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We dont want the wind
turbines on the Island because
of the disturbance it going to
cause to our environment.

No.



NORTHLAND POWER

McLean's Mountain Wind Farm

Public Information Centre

May 18, 2011

COMMENT SHEET

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I believe that the wind project is a great idea, we need to start thinking of generating alternative energy. The demand for power is not going down.

We don't want more nuclear power, look what happen in Japan. Wind is clean, renewable, minimal impact to the environment truly Sustainable development. European Countries have been using this technology for a long time.

I am in favour of the McLean's Mountain Wind project.



NORTHLAND POWER

McLean's Mountain Wind Farm

Public Information Centre

May 18, 2011

COMMENT SHEET

Have to start some place.

Don't want a screw like Japan.

Better than coal.

Henry Panick

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NORTHLAND POWER

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Public Information Centre
May 18, 2011**

COMMENT SHEET

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I guess Chief Shimmy Tuttee
was "consulted" enough.



NORTHLAND POWER

**McLean's Mountain Wind Farm
Public Information Centre
May 18, 2011**

COMMENT SHEET

Please pressure the gov't
(navigator) - to approve lights
with radar so they aren't
flashing continuously and make
the commitment to install when approved.

Gail Meekar
P.O. Box 3
Little Current
Ont P0P1K0

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NORTHLAND POWER

McLean's Mountain Wind Farm
Public Information Centre
May 18, 2011

COMMENT SHEET

It is unfortunate that you selected Manitoulin Is.
for your wind farm. Your turbines will not
deliver any positive impact to tourism
other than curiosity. Many non-tourist
areas are available in Northern Ontario
and these should have been selected.
We have many millions of hectares
of crown land which should be
available, none near homes etc; but
many near electric transmission
lines. THE ISLANDS WILL NEVER
BE THE SAME. THANKS TO YOU!

Please return this completed Comment Sheet to the project team at the Registration Table or you can fax it or mail it by May 25th, 2011 to:

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NORTHLAND POWER

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Public Information Centre
May 18, 2011**

COMMENT SHEET

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Move # 42 back 1.5 kilometers



NORTHLAND POWER

McLean's Mountain Wind Farm

Public Information Centre

May 18, 2011

COMMENT SHEET

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Solar Heat is the ~~best~~ way

Not ugly looking steel in the sky
They will not help my Hydro Bill
may the people who are putting them
up. Go back Home, Leave ~~our~~
Island alone
Senior Citizen (G. Bond)



NORTHLAND POWER

**McLean's Mountain Wind Farm
Public Information Centre
May 18, 2011**

COMMENT SHEET

The T42 turbine should be moved to one of the 4 other permitted sites east of the proposed T42 site. As it is it was moved closer to Doug How's property and the summer residents of Honora Lakeshore Rd. We live in our summer residence for 4 to 5 months each year and this proposed turbine site T42 is a big concern to us. Why is it that the native people of Aundiy Danni Kanning get 2 KM setbacks from any of their reserve land and the "whites" only get a few hundred metres?

Please return this completed Comment Sheet to the project team at the Registration Table or you can fax it or mail it by May 25th, 2011 to:

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NORTHLAND POWER

McLean's Mountain Wind Farm

Public Information Centre

May 18, 2011

COMMENT SHEET

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no Iron Monsters on the mountain

isld

This is a very sacred land and we
want it the way it is now

no turbines on the island.

NO.