



November 17, 2010

**Attention: Mike Lord, Vice President, Operations, Gilead Power Corporation;
Mark Kozak, Project Manager, Stantec Consulting Ltd.; and
Rob Nadolny, Senior Project Manager, Stantec Consulting Ltd.
ostranderpoint@stantec.com.**

**Re: Ostrander Point Wind Energy Park. – Nature Canada and Ontario Nature's
comments**

Nature Canada and Ontario Nature are grateful for this opportunity to comment on the Ostrander Point Wind Energy Park Proposal. Our organizations are strong supporters of the Ontario Government's effort to rapidly deploy wind energy as part of its strategy to reduce the greenhouse gas emissions and transition to a cleaner, sustainable energy system. We support most wind energy projects and recognize that projects cannot be developed without some impact to wildlife. However, we strongly oppose the development of the Ostrander Point Wind Energy Park at this location, inside the globally significant Prince Edward County South Shore Important Bird Area. We urge the Province and Gilead to immediately withdraw this project.

Ostrander Point is an anchor in the globally significant Prince Edward County South Shore Important Bird Area. It supports a rich breeding bird community and is of great significance for migrating birds. To quote the comments on this project from Environment Canada in their letter dated February 24, 2010, "In terms of overall quality, it is one of the best areas for birds EC has seen in southern Ontario." In their guidance document released in February, 2007¹, Environment Canada states "Depending on the findings of baseline studies, project proponents whose projects fall into this category may be encouraged or even required to seek alternative locations if significant adverse effects on birds" Given Ostrander Point's significance for birds, we are at a loss to comprehend how an industrial wind farm proposal for this site could have made it to the final stages of approval. From our perspective this project is a most egregious example of a renewable energy project that is simply located in the wrong place.

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Wind Turbines and Birds A Guidance Document for Environmental Assessment. Environment Canada, Canadian Wildlife Service, February, 2007.



Nature Canada is one of Canada's oldest national non-profit conservation organizations with a mission to protect and conserve wildlife and habitats in Canada by engaging people and advocating on behalf of nature. Our network includes 40,000 supporters and more than 350 naturalist organizations across Canada. We co-deliver (with Bird Studies Canada) the Important Bird Area Program in Canada on behalf of the global bird authority, BirdLife International. Ontario Nature protects Ontario's wild species and wild spaces through conservation, education, and public engagement. Established in 1931, Ontario Nature is a charitable, membership-based conservation organization with over 140 member groups and over 30,000 individual members and supporters.

On March 10, 2009, Nature Canada provided Gilead Power Corporation with specific comments on the Draft Environmental Review Report, released in January of 2009. The updated Bird Report, dated January 2010, contains very little new information, and our original comments still apply. We have included this 2009 letter as an attachment to these comments.

We have identified several flaws and inconsistencies in the methods and data which cast serious doubts on the conclusions and recommendations in these reports. However, we do not believe it is our responsibility to audit and scrutinize this report. Rather the responsibility lies with the Ontario Government to execute its fiduciary responsibilities to the Ontario public.

We will present some examples to illustrate our key conclusions which are:

- Ostrander Point is extremely important for migrating birds, and has a significant breeding bird community with many species of conservation concern, which is clearly shown in the consultant's reports.
- The methods used by the consultant to assess bird populations are at times inconsistent and flawed.
- This site should be protected from any and all industrial activities and not sacrificed for a small scale wind energy project.
- Ostrander Point Wind Energy Park is a threat to other wildlife

1. Importance of Ostrander Point for migrating and breeding birds

Migrating birds

Radar studies conducted in the spring and fall of 2008 revealed that large numbers of birds move through Ostrander Point. 70,355 "targets" were detected in the spring, of which 41% were considered within the range of the turbine blades, and 160,649 in the fall, of which 50% were within the height of the turbine blades. Despite many caveats and disclaimers to the data, such as what proportion of the "targets" were



not birds (e.g. bats or insects), or the fact that most “targets” were recorded on relatively few days (a fact that is well known about the nature of bird migration), it can be assumed that a good portion of the “targets” were birds and that large volumes of birds move through the airspace above Ostrander Point at night during migration. The fall migration appears to have higher numbers of birds (not surprisingly as there are more birds in the fall), based on this one year of data, which the radar study author also includes within his list of reasons for not drawing conclusions.

The radar study did not confirm or refute the belief that large numbers of birds either descend to the habitat on Ostrander from the sky after several hours of nocturnal migration, or ascend from Ostrander Point habitats as they begin their migrations in the fall. Perhaps the most concerning observation was that the birds appear to move in multiple directions at lower altitudes in the fall, perhaps indicating that they attempt to get their bearings and orient themselves as they gain altitude and commence southward migration in the fall. Such behaviour could put large numbers of birds at risk. The geography of the Long Point Peninsula and southern Prince Edward Point in general appears to direct large numbers of birds along the peninsula’s east-west axis in the fall.

Raptor studies by the proponent or cited in the reports confirm that large numbers of hawks, owls, eagles, falcons, ospreys and harriers migrate through Ostrander point on their fall migrations. In section 4.3 of the bird report, it is stated: “fall migration raptor surveys found relatively high raptor movement at the Study Area, peaking in early October with 70 observations/hour on October 5, 2006 and 109 observations/hour on October 8, 2009.” In terms of direction of flight it was said “Many raptors appeared to be moving eastward, towards the tip of the Prince Edward Point peninsula but many were also observed moving west, towards Point Petre.” When compared with numbers of birds from other hawk watching stations on Lake Ontario and Lake Erie (which support some of the highest concentrations of birds of prey in the interior of North America, excluding coastal areas), the report states the following: “Numbers at the Study Area were generally similar to or slightly higher than at the other count locations. . . .” The report notes also that on October 29, 2008, 60 Golden Eagles, provincially endangered in Ontario, and over 1,000 Red-tailed Hawks flew over nearby Prince Edward Point.

Owls migrate through the area also. The Report discussed the migration of the Northern Saw-whet Owls, monitoring regularly by mist netting at nearby Prince Edward Point Bird Observatory inside the Prince Edward Point National Wildlife Area. The observatory captures the highest number of migrating Northern Saw-whet Owls of any bird observatory in Canada. The small owls flood past in the month of October, with numbers captured and banded usually exceeding 500 per year. The Report cites those who have observed the phenomenal Saw-whet migration as stating “that most of the Northern Saw-whet Owls arrive at Prince Edward Point via a land route from the



mainland moving eastward down the peninsula. They also hypothesized that most owls do not cross Lake Ontario, but instead backtrack westward upon reaching the point.” This hypothesis, based on observation implies that the Saw-whets would cross the area of Ostrander point twice, once on their way east, and a second time on their way back west. The report also states that “the manner and height at which (Northern Saw-whet Owls) fly is poorly understood.”

The data presented are irrefutable in attesting to the high number of birds of prey migrating through Ostrander Point. Draft mortality thresholds from the Ontario Ministry of Natural Resources (MNR, pg. 10, October, 2010) set the threshold for raptors fatalities at 0.2 per turbine or a total of 2 for a project with fewer than 10 turbines (such as this project). Given the high concentration of both diurnal and nocturnal raptors, it would seem that the likelihood of eclipsing the threshold is very high.

In reviewing data on migrating birds, both songbirds and raptors, the only conclusion one can reach is that there is very little confidence in suggesting that the site will have low impacts on birds, and that the potential for the site having catastrophic impact is high.

Breeding birds

The scrub alvar, wetland and patchy forest community is highly significant for breeding birds with many species of conservation concern occurring within the habitats of Ostrander Point. Fourteen conservation priority species from Partners in Flight, a multi-party, North American alliance of governmental and non-governmental groups concerned with landbird conservation, breed within Ostrander Point including Northern Harrier, Whip-poor-will (recently listed as Threatened under the federal Species at Risk Act), Black-billed Cuckoo, Northern Flicker, Willow Flycatcher, Eastern Kingbird, Wood Thrush, Brown Thrasher, Field Sparrow, Savannah Sparrow, Grasshopper Sparrow, Eastern Towhee, Eastern Meadowlark and Baltimore Oriole. Most of these species are experiencing serious declines in Ontario (Atlas of the Breeding Birds of Ontario, 2001 – 2005).

The area also has high densities of Wilson’s Snipe and American Woodcock, two species in which the males conduct aerial displays at approximately the height of the turbine blades. The report concludes that these species “may be at higher risk to collisions with turbines.”

Whip-poor-will is a federally listed Threatened Species under Canada’s Species at Risk Act. Whip-poor-will are known to breed in the vicinity of Ostrander Point, and was observed on three surveys conducted by the proponent for Snipe and Woodcock. An aerial insectivore, (a bird that only hunts flying insects at night) Whip-poor-will is naturally at risk from the spinning turbine blades which appear to attract flying insects,



perhaps due to their colour or the lower pressure created around them. Despite these observations, Stantec did not conduct intentional surveys on this Species at Risk. Stantec concluded that the Whip-poor-wills observed during their surveys were likely migrating rather than breeding individuals. We are at a loss as to how this conclusion could be reached given the lack of follow-up studies. Given the excellent habitat for Whip-poor-will at Ostrander Point and the history of the species breeding nearby (Atlas of Breeding Birds of Ontario), a greater effort to confirm breeding would have seemed prudent. We believe that there is a high potential for local populations of this federally Threatened species to be impacted by this wind energy project.

There is little doubt that the combination of loss and fragmentation of habitat and disturbance from the road system, the operating turbines, and associated infrastructure will negatively impact the breeding bird community at Ostrander Point. Some of the proposed turbines are within or very close to a provincially significant woodland or a provincially significant wetland. Most turbines are proposed to be built on scrub alvar – prime breeding habitat for many of the species listed above. All of the area is currently in natural habitat, not anthropogenic habitat such as farm fields.

We are very disappointed that an opportunity to safeguard the thriving breeding bird community, comprised of a high proportion of species of conservation concern (not to mention non-bird species such as Blanding’s Turtle, which also will be impacted by the project), could be wilfully damaged rather than wilfully protected.

2. The methods used by the consultant to assess bird populations are at times inconsistent and flawed

Timing of surveys inadequate – methods do not adequately sample some species

Given the extraordinary significance of this location for birds, we would expect a thorough assessment of bird populations using all available information, to remove any doubt about the project’s risks. In reality, though the consultants used methods that may adequately sample some species, as well as overall numbers of nocturnal migrants (through a radar study conducted in 2008), their methods fall short of providing an accurate picture of the use of the site by birds. The radar study, though of good value, was conducted during only part of one spring and one fall migration season. Such an admittedly limited study does not provide a measure of the variability between years. It is also possible that some of the patterns described such as most “targets” being detected on relatively few nights in the spring, was anomalous. In the end, though the radar study confirms that a significant number of “targets,” presumably birds and bats, move through the air space of the turbines’ spinning blades, there is a high degree of uncertainty as to whether the high number of detected targets described by the Proponent would be on the low end or the high end of annual variability.



In the case of spring and fall migration surveys, their studies failed to cover the entire migratory season, leaving off, particularly in the spring, a significant part of the migration. Spring migration was monitored from May 2 to June 2 in only 2008. A significant part of the migration occurs during the month of April, which was not documented by the consultant. In reviewing 2009 data from the Prince Edward Point Bird Observatory, it is apparent that many species migrate principally in the month of April and would have been underestimated or perhaps not even noticed, including Kinglets, Brown Creeper, Hermit Thrush, Slate-coloured Junco, White-throated Sparrow and Rusty Blackbird.

In the case of the fall raptor study, the 2009 survey ended on October 15, fully two full weeks before the cited major movement of Golden Eagle and Red-tailed Hawk described in the report. An accurate fall raptor survey requires daily observations throughout the season, which extends into November for some species. The consultant's surveys were deficient in this respect.

With regard to methods used to detect birds, the proponent used transect surveys and radar to assess the nature of the spring and fall landbird migration. These methods do not adequately sample difficult to detect species such as thrushes. We illustrated this point in our 2009 comments with Gray-cheeked Thrush and Swainson's Thrush, both highly migratory species for which Canada has a very high jurisdictional responsibility (Canada has a high proportion of their respective global populations). In 2008, at the nearby Prince Edward Point Bird Observatory 37 Gray-cheeked Thrushes and 81 Swainson's Thrushes were trapped and banded, for a total of 108 birds. The field workers for Stantec, working at Ostrander Point, only found 1 of each species for a total of 2 individuals!

We recommended the following of the proponent:

"We would encourage the proponent to either include mist netting in their own sampling methods, or, better yet, incorporate the data from the Prince Edward Point Bird Observatory, which we believe would approximate the situation at Ostrander Point."

Disappointingly, no additional landbird monitoring took place, and no mist netting was done on site to sample difficult to detect passerines, nor, most significantly, was data presented or discussed from the the Observatory for difficult to detect species. Instead the comment "Thrushes were also observed in small numbers" was left in the consultant's report, rather than acknowledging that their methods were likely not detecting some species, or using the Observatory's data to fill gaps in their assessment.



Common Nighthawk, a federally listed Species at Risk (Threatened under SARA), was not detected in the fall migration study, but we believe this species likely uses the site during fall migration. It is observed annually at the nearby Prince Edward Point Bird Observatory. In 2009, 52 Common Nighthawks were observed moving through the migration monitoring station between August 23 and September 1, including a high of 25 individuals on August 24. Common Nighthawk is well-known to concentrate along and follow the Great Lakes coastlines during migration. As it is an aerial insectivore, it feeds on flying insects, which have been documented as concentrating around wind turbines, and being a possible source of attraction for bats.² Areas proximate to the shoreline, such as Ostrander point, have higher concentrations of insects such as midges and mayflies than inland areas. We therefore believe that the potential of the wind turbines to attract insects, which in turn attract bats and birds such as the Common Nighthawk and Whip-poor-will, is high at Ostrander Point.

The failure of the Proponent to detect Common Nighthawk in their 2008 bird surveys does not mean that this bird is not present at Ostrander Point. Rather, it underlines a deficiency in their survey methods and consequent conclusions, which should have included a discussion of Common Nighthawk and used bird migration data from Prince Edward Point Bird Observatory to fill this gap.

Confusing and ambiguous methodology for interpreting flight heights

In addition to this gap in data, the report presents an ambiguous and confusing discussion around the height at which raptors were observed migrating. The turbine blades span an area of 100 metres, from 25 metres above the ground to 125 metres above the ground (Attachment A, Draft Turbine Specification Report). In the analysis of flying heights presented in the 2006 surveys, the heights that the raptors were observed at and the proportion per zone was presented as follows:

33% < 40 metres,
16% between 40 and 100 metres
52% > 100 metres

In 2009, the height categories were changed and the data was presented as follows:

5% <35 metres
31% between 35m and 125m
22% between 125m and 150m, and

² Insect attraction to wind turbines: does colour play a role? C. V. Long, J. A. Flint and P. A. Lepper <http://www.springerlink.com/content/p4565vx242651518/>



43% > 150 m.



Stantec's conclusion in comparing the 2009 surveys with the 2006 surveys in their report was "similarly, results from Stantec's 2009 surveys indicated **most observations occurred either above or below blade sweep.**"

Clearly this result could have been interpreted differently. Based on the data presented, they could have said "perhaps as many as half of the migrating raptors fly through at blade height. " The confusing use of different height categories for different years as well as the questionable ability of an observer to be able to accurately estimate bird height if a bird is migrating above 125 metres and below 150 metres above grounds from a distance, calls into question the validity of their data and conclusions. We are convinced that an alternative conclusion could also be reached that a large number of raptors, perhaps half of all those migrating through the proposed wind farm, migrate at or very near blade height.

3. This site should be protected from any and all industrial activities and not sacrificed for a small scale wind energy project.

Ostrander Point is public land, owned by the Crown and managed by the Ontario Ministry of Natural Resources. It is classified as a Crown Land Block. It is near the geographic centre of the globally significant Prince Edward County South Shore Important Bird Area, designated for its high concentration of landbirds during migration as well as waterfowl. Ostrander point is within a few kilometres of the **only Federal National Wildlife Area specifically designated for its importance to migrating landbirds**. Ostrander Point is also a proposed provincial Area of Natural and Scientific Interest. It has likely not been officially recognized because of this controversial project.

Geographically, Ostrander Point is situated on the Long Point peninsula that projects to the east on the south shore of the county. The Crown Land block and much of the entire south shore extending east to the National Wildlife Area, and to the west, is natural forest, scrub forest, and wetland. Millions of birds migrating south in the fall are funnelled through this narrow peninsula. It is the nature of naturally vegetated Great Lakes shorelines to be of extreme significance to migrating birds as a stop-over, a feeding area, and as a concentration point. Most of the coastal habitat of the lower Great Lakes – Ontario, Erie and Huron, has been modified or transformed into human use. Little natural coastline remains. The fact that Ostrander Point is on a narrow peninsula that is natural as opposed to anthropogenic habitat, multiplies the importance of this site for birds. The peninsula focuses the migration and concentrates migrants at greater densities, a fact well known by seasoned ornithologists and naturalists.



Given the Ontario Government's competing priorities, such as its commitment to promote green energy in Ontario, while at the same time exercising its obligation to protect biodiversity, we have serious concerns about the ability of the OMNR to make good decisions about the future use and management of its Crown Land assets in southern Ontario in general, and in particular Ostrander Point. This concern is exacerbated by the unplanned way in which on-shore wind energy projects have developed in Ontario over the past 5 years. The government encouraged a flush of projects when it made a policy decision to make Crown Land available for "green energy" projects in 2004. In contrast, the Province is to be applauded in its current thoughtful consultation process to guide its offshore wind policy. However, on-shore projects have not received the same attention or good planning and consultation with regard to where wind farms should and should not go. There is a public perception at least that the province is willing to sacrifice biodiversity to fulfill its political agenda to implement the Green Energy Act.

Prior to Ostrander Crown Land Block's notoriety as the proposed site for this controversial wind plant, the OMNR nominated it as a candidate Life Sciences Area of Natural and Scientific Interest ANSI due to its significance for migrating birds and its rare alvar habitats. Over a decade ago, in 1997, David Bland prepared a Management Plan for Ostrander Point for the OMNR, which encouraged restoring grasslands and natural habitats on the site. What was intended to be an important natural link of Lake Ontario coastal habitat appears destined to be a casualty of politics. It is not too late to reverse this path and do the best thing we can for biodiversity and climate by protecting a rich natural habitat and allowing its forest and other habitats to thrive.

4. Impacts on other Wildlife

Wind turbines have also been recorded to have significant impacts on bats. These impacts can be direct, such as collision with turbine blades, or other physical components of wind farms such as towers and transmission lines. The impacts can also be indirect, such as lung damage (known as barotrauma) caused by a sudden drop in air pressure. In addition to this, there are direct and indirect impacts on bat habitat, such as habitat clearance for the installation of wind turbines, and avoidance of habitats in areas where wind projects are located.

The excerpts below, taken out of a technical review on wind energy facilities and wildlife carried out by The Wildlife Society (Arnett et al. 2007)³, warrant the immediate attention of decision makers due to the potentially significant impacts this project will have on bats:

³ Arnett, E. B., D. B. Inkle, D. H. Johnson, R. P. Larkin, S. Manes, A. M. Manville, J. R. Mason, M. L. Morrison, M. D. Strickland, and R. Thresher. 2007. Impacts of wind energy facilities on wildlife and wildlife habitat. Wildlife Society Technical Review 07-2. The Wildlife Society, Bethesda, Maryland, USA.



“Recent reports of large numbers of bats being killed at wind energy facilities (e.g., Fiedler 2004, Kerns and Kerlinger 2004, Arnett 2005, Arnett et al. 2008) raise concerns about potential cumulative population-level impacts.”

“Because bats are long-lived and have exceptionally low reproductive rates, population growth is relatively slow and their ability to recover from population declines is limited, increasing the risk of local extinctions.”

The technical review adds: “Although bats collide with other tall anthropogenic structures, the frequency and number of fatalities reported in the literature (e.g., Avery and Clement 1972, Crawford and Baker 1981, Mumford and Whitaker 1982) are much lower than those for birds or for bat fatalities observed at wind turbines.”

The Prince Edward Point National Wildlife Area (NWA), located approximately 8 km from Ostrander Point, has been recognized as a Monarch Butterfly Reserve by Canada, the United States and Mexico under the Commission for Environmental Cooperation (CEC). The Monarch Butterfly is a federally listed species at risk (Special Concern). The NWA is also an important area for the Blanding’s Turtle, a species listed as Threatened under the federal Species at Risk Act (SARA).

Recommendation:

For all the reasons outlined above, we call on the proponent, and the Government of Ontario to reject the proposed Ostrander Point Wind Energy Park, given the significant impact it will have on the area’s natural value. In the MNR’s proposed draft *Bird and Bird Habitats; Guidelines for Wind Power Projects* (EBR Registry Number: 011-0112) it states that ‘appropriate selection of a project location is a key factor to preventing potential negative effects on birds’, and ‘applicants should collect and *consider* all available bird data and bird habitat-related information for the proposed project location’. Therefore, we ask that the proponent adhere to these guidelines, and seek an alternative site for the proposed project. This should be the case for all future wind farm projects proposed within areas of high natural value.

It is important that Ontario rapidly develop wind and other renewable energy sources. Ongoing public support for these efforts will be essential to the success of the government’s strategy in this regard. We are keen to play an active role in fostering the public support that is required. We can only do this, however, if the projects that are implemented are soundly defensible in terms of their net benefit, including the intelligent selection of sites and the mitigation of impacts on wildlife. After reviewing the consultant’s report, including comments from agencies, we have no doubt that Ostrander Point should not be the site of a wind energy park, but rather conserved and



managed so that its significance for migrating and breeding birds is ensured in perpetuity.

Respectfully,

A handwritten signature in blue ink that reads "Mara Kerry".

Mara Kerry
Director of Conservation

A handwritten signature in blue ink that reads "Anne Bell".

Anne Bell
Senior Director of Conservation and Education

CC Dalton McGuinty, Premier of Ontario
Linda Jeffrey, Minister of Natural Resources, Province of Ontario
John Wilkinson, Minister of the Environment, Province of Ontario
Brad Duguid, Minister of Energy, Province of Ontario
Gord Miller, Environmental Commissioner of Ontario
Denise Fell, Environment Assessment Officer
Honourable John Baird, Minister of the Environment, Government of Canada
Virginia Potter, Director General, Canadian Wildlife Service