

Amherst Island – Biodiversity Threatened



Photograph: www.birdsbykim.com

Amherst Island:

- Provides habitat for 11 Species at Risk (Barn Swallow, Bank Swallow, Bobolink, Cerulean Warbler, Eastern Meadowlark, Eastern Whip-poor-Will, Golden Eagle, Least Bittern, Red Knot, Blanding's Turtle, and Little Brown Bat)
- Provides habitat for 14 Species of Concern (Bald Eagle, Black Tern, Canada Warbler, Golden-Winged Warbler, Great Blue Heron, Hooded Warbler, Horned Grebe, Olive-sided Flycatcher, Red-headed Woodpecker, Short-eared Owl, Monarch Butterfly, Snapping Turtle, Painted Turtle, Milksnake)
- Home to Owl Woods / Internationally recognized for concentrations of wintering hawks and owls
- Designated as an Important Bird Area (IBA) of Global Significance
- Located on the Atlantic Migratory Flyway
- Ranked 2nd in biodiversity significance among the 119 islands found in Lake Ontario's Northeast Coast
- Includes 400 Hectares of Provincially Significant Coastal Wetland



Owl Woods – Amherst Island is internationally recognized for concentrations of wintering hawks and owls

- Amherst Island has gained international recognition for its concentrations of wintering hawks and owls which roost and hunt throughout the island. Up to 10 species of owls have been recorded during a single winter. Short-Eared, Long-Eared and Great Horned owls are among the resident bird population. Visitors from the Far and Near North – Snowy owls, Saw-whet owls, and the rare Boreal owl as well as Eastern Screech and Barred owls add to the owl population during late fall and winter. Both Red-tailed and Rough-legged hawks are usually present and there are annual sightings of Bald Eagles, Peregrine Falcons and Turkey Vultures.

Amherst Island is an Important Bird Area (IBA) of Global and Continental Significance

- The **Amherst Island IBA, which encompasses the entire island**, is recognized as being a site of Global and Continental Significance for Congregatory Species. Sizeable spring congregations of Brant and Dunlin have been recorded. Between 1994 and 1997 the average number of Brant staging at this site during the spring migration was 3,550, representing just over 1% of the North American population.¹ A diversity of habitats has resulted in Amherst Island becoming a renowned site for a wide variety of other birds including shorebirds, raptors, and land-birds such as large concentrations of migrating swallows.

Amherst Island is located on the Atlantic Migratory Flyway

- Amherst Island, located on the Atlantic migratory flyway in Lake Ontario, is seasonally impaired by fog and other weather events. Migratory birds and those that inhabit the island often experience low visibility conditions, this may increase the potential number of turbine blade/bird collisions.

¹ IBA Canada Web Site: <http://www.ibacanada.com/site.jsp?siteID=ON062&lang=EN>



Amherst Island is ranked 2nd in biodiversity significance

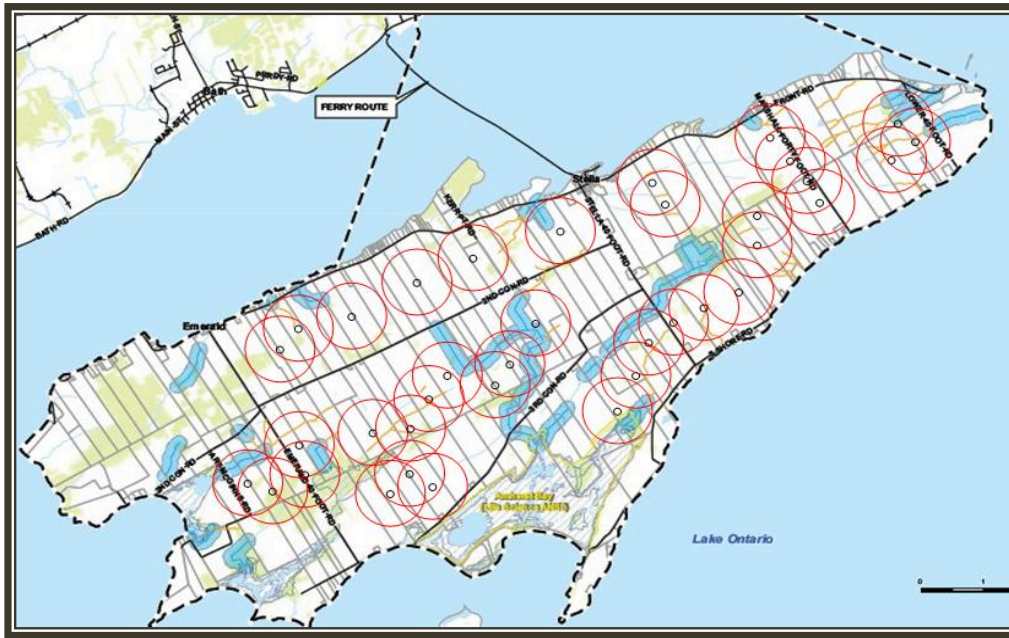
- Lake Ontario's Northeast Coast is comprised of 911 islands. *Islands of Life: A Biodiversity and Conservation Atlas of the Great Lakes Islands* ranks **Amherst Island 2nd in biodiversity significance in this area**; second only in significance to its much larger neighbour, Wolfe Island.
- The Great Lakes contain the largest collection of freshwater islands in the world. These islands contain significant biodiversity including endemic species, rare habitats, and critical biological functions. They are important breeding and staging areas for colonial nesting waterbirds, harbor noteworthy assemblages of plants and animals and provide important stopover sites for migrating birds. They make a significant contribution to the physical and biological diversity of the Great Lakes and surrounding basin. [1]
- Amherst Island provides habitat for representative and **globally rare species**. The diversity of ecological systems also provides suitable habitat for other waterfowl and fish species. This island contains a **provincially significant wetland** and is also recognized as a **globally significant IBA**. There is some limited residential development, agriculture and quarry activity on this island."

400 Hectares of Provincially Significant Coastal Wetland

- The Ontario Ministry of Natural Resources Life Science Check sheet provides the following information: "Norris has reported on the site diversity and notes that the site contains at least 16 vegetation communities, 8 wetland, 3 lowland forests, 2 upland, 2 beach and 1 dune community. Norris also noted that the site contains approximately 350 species of vascular plants, 77 species of birds, 11 species of herpetofauna and 8 species of mammals.... Several floral and faunal rarities have been reported within this site." [2]

1. Islands of Life: A Biodiversity and Conservation Atlas of the Great Lakes Islands: 2010, Ministry of Natural Resources: page 142. <http://conserveonline.org/library/islands-of-life-a-biodiversity-and-conservation/view.html>
 2. Link to document found at: http://sitebuilder.yola.com/en_US/ide/index.jsp?siteid=8a49866b33fd48860134149b4b59442e

Proposed Industrialization of Amherst Island



The red circles on map to the left indicate 550 metre circles from the centre of the turbines. Note that the turbines are spread throughout the island, fragmenting valuable habitat.

Comparison of Total Height of Industrial Wind Turbines (IWT)

- Toronto Exhibition Place IWT – to tip of blade: 90 metres
- Amherst Island IWT – to tip of blade: 156 metres (50 stories tall)

Technical Specifications of IWT Proposed for Amherst Island

- Individual blade length – 55 metres
- Swept area (Area covered by the blades as they turn) 10,000 metres squared (almost 2.47 acres)
- Speed that can be reached at the tip of the blade – 193 miles per hour
- IWT Tower – hub height 99.5 metres
- Total height of Industrial Wind Turbine – 156 metres

Project Timelines

- **2011 Feb 2** – OPA grants contract to Algonquin – Part of FIT 2
- **2012 Feb 2** – 1 Year
- **2013 Feb 2** – 2 Years
- **2014 Feb 2** – 3 Years (according to original contract turbines should be operational)
- **FIT 2 contracts include an automatic 18 month extension to be operational**
- **2015 Feb 2** – 4 Years / 12 months into 18 month extension to be operational
- **2015 Aug 2** – 18 month extension to be operational expires
- Per Loyalist Township Algonquin applied for 110 day (3.5 months) extension with OPA
- **2015 Mid December – Algonquin extension (no confirmation received) expires**

SPECIES AT RISK /OF CONCERN DOCUMENTED ON AMHERST ISLAND (2011 – 2013)

	Observed Migrating Algonquin Power	Observed Breeding Algonquin Power	Observed Kingston Field Naturalist	Breeding on Amherst Island /ABBO	COSARO (Prov.)	Federal
AVIAN						
Bald Eagle	Yes		Yes	Unknown	SC	
Barn Swallow	Yes	Yes	Yes	Yes	THR	THR
Bank Swallow	Yes	Yes			THR	
Black Tern		Yes	Yes	Yes	SC	
Bobolink	Yes		Yes	Yes	THR	THR
Canada Warbler	Yes		Yes	Probable	SC	THR
Cerulean Warbler	Yes		Yes		THR	END
Eastern Meadowlark	Yes	Yes	Yes	Yes	THR	TR
E. Whip-poor-Will	Yes		Yes	Probable	THR	THR
Golden Eagle			Yes		END	
Golden-Winged Warbler	Yes		Yes	Possible	SC	THR
Great Blue Heron	Yes		Yes	Probable		SC
Hooded Warbler	Yes		Yes		SC	THR
Horned Grebe	Yes		Yes	Unknown	SC	END
Least Bittern	Not Listed		Yes	Possible	THR	THR
N. Saw-Whet Owl		Yes	Yes	Probable		THR
Olive-sided Flycatcher	Yes		Yes	Unknown	SC	THR
Red-Headed Woodpecker	Yes		Yes	Yes	SC	THR
Red Knot			Yes	Unknown	END	THR
Short-Eared Owl	Yes	Yes	Yes	Yes	SC	SC
BUTTERFLY						
Monarch Butterfly	Yes		Yes		SC	
TURTLES						
Snapping Turtle			Yes		SC	
Blanding's Turtle			Yes		THR	
Painted Turtle (1 documented sighting 2014)			Yes		SC	
SNAKE						
Milksnake			Yes		SC	
BAT						
Little Brown Bat			yes		END	THR