

DRAFT



**Osprey Nesting Platform HIP
Evaluation of
Potential Locations for Additional Platforms
in the Niagara River Corridor**

Niagara Power Project (FERC No. 2216)

PREPARED FOR:

NEW YORK POWER AUTHORITY

PREPARED BY:

**RIVEREDGE ASSOCIATES AND
KLEINSCHMIDT ASSOCIATES**

September 2009

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

TABLE OF CONTENTS

1.0	INTRODUCTION	1-1
2.0	METHODS	2-1
3.0	SITE-SPECIFIC OPPORTUNITIES	3-5
4.0	SITE EVALUATION AND RANKING.....	4-1
5.0	RECOMMENDED SITES	5-1
5.1	TIFFT NATURE PRESERVE.....	5-1
5.2	LITTLE BEAVER ISLAND HIP MARSH RESTORATION.....	5-1
5.3	102ND STREET LANDFILL.....	5-2
5.4	ADAMS SLIP, NYPA BOAT LANDING.....	5-2
5.5	ALTERNATE SITES	5-2
5.6	NEXT STEPS	5-3
6.0	REFERENCES	6-1

Appendix A Memo from NYPA soliciting public suggestions for platform locations

1.0 INTRODUCTION

The New York Power Authority (NYPA) is pursuing several habitat improvement projects (HIPs) related to the relicensing of the Niagara Power Project. One of these HIPs involves the construction and monitoring of six osprey platforms along the Niagara River in compliance with the Niagara Power Project Comprehensive Relicensing Settlement Agreement.

The purpose of this study is to systematically identify and evaluate potential platform installation locations along the Niagara River corridor that are based on a variety of key biological, installation, and acceptability criteria. From this list of potential installation locations, NYPA will pursue discussions with landowners, resource agencies, and engineering staff to target efforts towards the best locations. To date, NYPA has installed two of the six osprey platforms under this HIP at opportunistic sites that arose during the early stages of this HIP. The remaining four installation locations will be based on the results of this site selection effort, and will be determined by NYPA and the Ecological Standing Committee (ESC) during 2009.

The first nesting platform installed under this HIP was placed on Buckhorn Weir on the northern end of Grand Island in 2007. The second platform was installed in June 2009 within an offshore breakwater at the East River Marsh, in Beaver Island State Park on the southeastern tip of Grand Island.

2.0 METHODS

Potential new locations for osprey platforms were identified in the spring of 2009 through a review of nesting requirements (*e.g.*, Poole et al., 2002) and aerial photos, discussions with the ESC and other knowledgeable individuals, nominations from the general public solicited from the ESC and others (Appendix A), and a site assessment. This information was used to estimate the suitability of the location and the probability of success.

Site selection considerations included:

- a) distance from water or foraging areas,
- b) proximity to other nesting raptors,
- c) proximity to thickly forested woodlands,
- d) height of nearest adjacent trees,
- e) ease of public viewing,
- f) potential disturbance by people, industry, or pets,
- g) land ownership,
- h) condition of soils at the site,
- i) ease of access for pole installation, and
- j) potential impacts to sensitive areas from installation.

These considerations are discussed briefly below and summarized in Table 2-1. In addition, consideration was given to areas where ospreys may be attempting to nest on inadequate structures (*e.g.*, power lines or structures scheduled for demolition, such as the coal elevator at Tonawanda Coke) and to existing platforms that are not currently in use by ospreys. A description of each criterion follows.

Distance from water or foraging areas: A site close to water or foraging areas (river, lake, large pond) is generally more desirable than a site far from water or foraging areas. Although some osprey nest a mile or more from water and foraging areas, most nests are located close to water and foraging areas. In general, closer is better. The best sites would likely be within one-half mile or less of water or foraging areas.

Proximity to other nesting raptors (bald eagle, peregrine falcon, other osprey): Other nesting raptors, such as bald eagle, peregrine falcon, and other osprey, may hinder the occupation of a new osprey nesting pole due to the general territorial nature of these birds. Sites more distant from known nests of these raptors are more desirable than sites close to

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

known nests of these raptors. Peregrine falcons nest on tall buildings, bridges and cliffs. Bald eagles nest in large trees, often pine trees near water, and generally distant from human disturbance.

Proximity to thickly forested woodlands: Osprey nest sites near thickly forested woodlands are generally less successful than osprey nest sites distant from these areas. Thickly forested woodlands may have competing raptors or predators such as great horned owls. Sites that are not close to thickly forested woodlands are more desirable.

Height of nearest adjacent trees: Ospreys often prefer to nest in trees at least as tall as or taller than the closest surrounding trees. The most desirable sites have trees that are lower than a pole-mounted platform installed at the site. In general, sites with tall trees nearby are less desirable.

Ease of public viewing: Nesting ospreys are interesting to view for birders and non-birders alike, especially with binoculars or spotting scopes. The most desirable sites have clear viewing opportunities for the enjoyment of the general public. The best sites might be those that could be observed from land or water. Remote locations that are not easily observed are less desirable.

Potential disturbance by people, industry, or pets: Disturbance from people, industry, or pets is an important consideration in selecting an osprey pole location. Although some ospreys may be surprisingly tolerant of limited or brief disturbances, it is generally most desirable to select sites where such disturbances are minimized. Sites directly adjacent to busy industrial sites, highways, or where large numbers of people and pets congregate are generally less desirable than sites with less disturbance.

Land ownership: Public land is more desirable than private land to facilitate pole installation, management, monitoring, and the enjoyment of the site by the general public. Private land may be acceptable, but would require legally binding agreements for access. In general, private land is typically less desirable than public land.

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Condition of soils at site: The condition of soils at the site of installation is an important consideration as well. The most desirable soils are firm, dry, clean, upland soils that would provide adequate support for the pole and for the vehicles required for installation. In general, wet, soft, or potentially contaminated soils are not suitable sites for an Osprey pole.

Ease of access to pole installation location: Osprey poles are tall and heavy and their installation requires access for large wheeled or tracked vehicles. These vehicles will bore holes in the ground and set the poles in place. A wide access route is necessary for these vehicles to reach the installation site. The most desirable locations require the least disturbance to lawns, fences, trees, shrubs, or other local features. Sites with close proximity to deeper water may provide access for installation barges. Sites with difficult access are less desirable.

Potential impacts to sensitive areas from installation (wetlands; rare, threatened, endangered species; cultural resources): The most desirable sites for an osprey pole installation have no potential impacts from the pole installation on wetlands, sensitive species or habitats, and cultural resources. Although all sites will be restored, particularly sensitive areas are not suitable for the installation of an osprey pole and should be avoided.

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

TABLE 2-1. CRITERIA FOR SELECTING OSPREY PLATFORM LOCATIONS.

Criteria	More Desirable Less Desirable		
Distance from water or foraging areas	Near (On shoreline)	Moderate	Far (> 1 mile)
Proximity to other raptors (Bald Eagle, Peregrine Falcon, other Osprey)	Osprey observed in area and no other raptors known to nest nearby	Osprey observed in area but other raptors known to nest nearby	No Osprey nearby but other raptors known to nest nearby
Proximity to thickly forested woodlands	Far	Moderate	Near
Height of nearest adjacent trees	Low	Moderate	High
Ease of public viewing	Excellent from land or water	Good	Limited
Potential disturbance by people, industry, or pets	Low	Moderate	High
Land ownership	Public	Private with easement or not-for-profit conservation organization	Purchase Private Land
Condition of soils at site	Firm, clean upland soils	Potentially contaminated or moderately unstable soils	Very unstable soils or high potential for contaminants
Ease of access to pole installation location	Easy	Moderate	Difficult
Potential impacts to sensitive areas from installation (wetlands; rare, threatened, endangered species; cultural resources)	Low	Moderate	High

3.0 SITE-SPECIFIC OPPORTUNITIES

Based on field surveys and input received from a variety of agency and public stakeholders, 18 sites were considered as potential locations for osprey platforms. Two of the sites evaluated (Tifft Nature Preserve and Strawberry Island) were proposed in the conceptual HIP identification process (NYPA, 2005). Three of the 18 locations have existing osprey platforms that have not been utilized by osprey, possibly because the platforms are lower than the surrounding trees. Replacing these poles with taller ones may make them more attractive to nesting ospreys.

The 18 sites considered were located in Buffalo Harbor, the Buffalo River, the Niagara River, and on Lake Ontario as follows:

Buffalo Harbor and Buffalo River

- Tifft Nature Preserve (replace existing platform not currently being used)
- Seneca Bluffs, Buffalo River

Upper Niagara River

- Strawberry Island
- Beaver Island State Park, Little Beaver Island HIP marsh restoration
- Tonawanda Coke
- West River Parkway, Fix Road Overlook
- Big Six Mile Creek Marina
- Spicer Creek
- Buckhorn Island State Park (replace one of two existing platforms in marsh)
- Gratwick Park (north end)
- 102nd Street Landfill
- Adams Slip, NYPA boat landing

Lower Niagara River

- Lewiston Reservoir
- Earl W. Brydges Artpark State Park
- Stella Niagara shoreline
- Joseph Davis State Park
- Fort Niagara State Park, US Coast Guard station

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Lake Ontario

- Four Mile Creek State Park

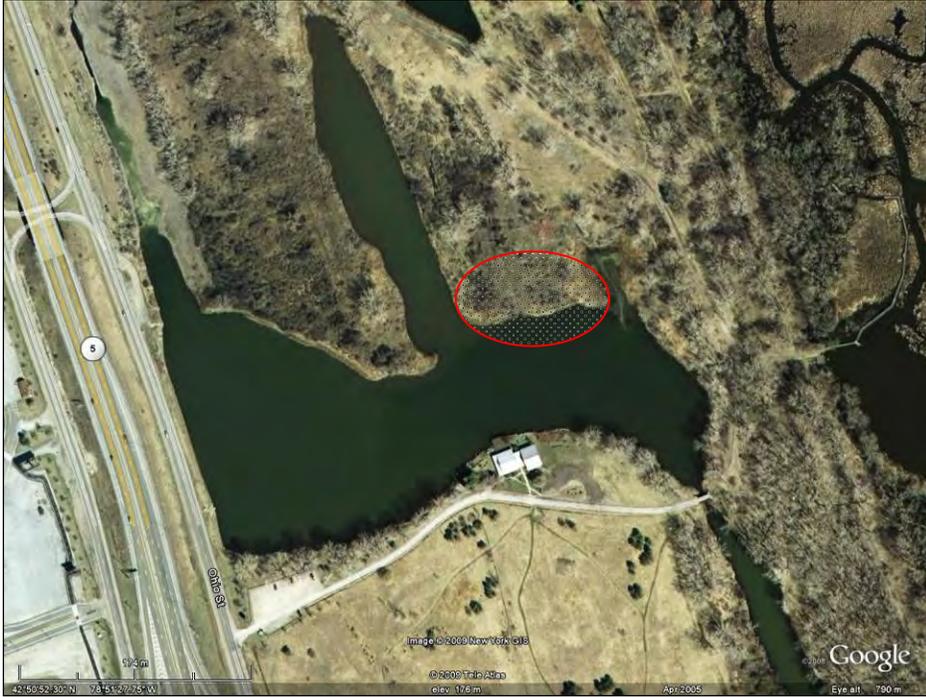
Each of the 18 sites is illustrated on the following pages with a location map, photograph, a short description of the site, and potential issues or constraints.

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Tifft Nature Preserve

Ownership: City of Buffalo; managed by Buffalo Museum of Science

Description: A popular nature preserve in the City of Buffalo. The existing osprey pole is short and has not been utilized by osprey; this pole would be replaced with a taller pole and new platform. New pole would be located at the same site as existing pole and would be readily visible from the observation deck at the visitor's center.



Key Issues: Site for new pole is surrounded by firm upland soils with good access to site. Some vegetation, all non-native, will need to be trimmed for access. Adjacent woodland is not dense and most vegetation is not too tall.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Seneca Bluffs

Ownership: Erie County

Description: Seneca Bluffs is a natural habitat restoration project in a heavily urbanized environment on the Buffalo River in Erie County. The site was formerly dominated by invasive species. It is one of Erie County's pocket parks that provide recreation opportunities for the general public.



Key Issues: Access for installation could disrupt extensive native plantings on site. Nearby trees are tall, and site is very urban. Nearby foraging opportunities limited. Area is used by anglers and disturbance is likely moderate.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Strawberry Island

Ownership: New York State Office of Parks, Recreation, and Historic Preservation

Description: State-owned island has been extensively managed and restored with the creation of protective berms and extensive wetland plantings. Osprey pole would be located on one of the two peninsulas at the north end of the island, or incorporated in future construction for the Strawberry Island HIP.



Key Issues: Northern peninsulas are far from tall trees, provide good viewing opportunities for the public, and excellent foraging areas for Osprey. This site is approximately one-mile from East River Marsh site. Installation would require a barge, but installation impacts would be minimal.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Beaver Island State Park, Little Beaver Island HIP marsh restoration project
Ownership: New York State Office of Parks, Recreation, and Historic Preservation
Description: The marsh at Little Beaver Island will be restored through the HIP. The Osprey pole could be sited in the marsh during excavation activities.



Key Issues: This site is easily accessible, provides good viewing opportunities, and has excellent foraging areas nearby. Disturbance and construction impacts would be low. The center of the marsh is approximately one-mile from East River marsh.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Tonawanda Coke

Ownership: Tonawanda Coke

Description: Circular steel cells formerly used to moor ships unloading coal. Ospreys are nesting on the tower of the coal elevator, which will be dismantled. An osprey pole and platform could be installed on one of the steel mooring cells.



Key Issues: The site provides good viewing opportunities and excellent foraging areas nearby. Barge required for installation. Privately owned and the future of this industrial site is unknown. Site is approximately 0.8 miles from East River marsh.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: West River Parkway, Grand Island, Fix Road overlook
Ownership: Town of Grand Island
Description: The Fix Road Overlook is a parking area on the west side of Grand Island and has a canoe and kayak launch.



Key Issues: This site is relatively open with thin woodlands and few tall trees. Access is good and foraging opportunities excellent. Site is a canoe and kayak launch and disturbance is likely moderate.

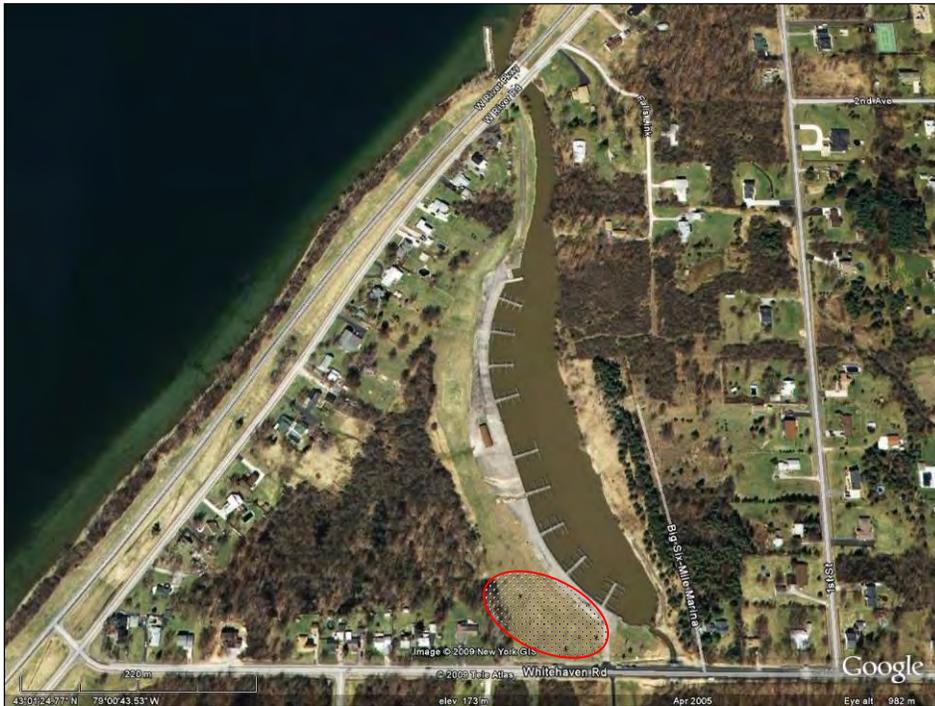


DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Big Six Mile Creek Marina

Ownership: New York State Office of Parks, Recreation, and Historic Preservation

Description: This state owned marina is located on the west side of Grand Island.



Key Issues: The marina has over 100 boat slips and is popular during the summer months. Access is good and impacts low, but potential disturbance is likely high.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Spicer Creek

Ownership: New York State Department of Environmental Conservation

Description: Spicer Creek, on the east side of Grand Island, is characterized by a small marsh along the Niagara River. This site is part of the new Spicer Creek Wildlife Management Area.



Key Issues: Access is poor, soils may be soft and construction would disturb the marsh. The adjacent woodlands are thick and the trees tall; these woods may contain Great Horned Owls that could conflict with Osprey. Two nesting sites of the threatened Common Tern are nearby. Foraging is excellent and public viewing good.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Buckhorn Island State Park

Ownership: New York State Office of Parks, Recreation, and Historic Preservation; portions managed in cooperation with NYSDEC

Description: The marsh of Buckhorn Island State Park has two Osprey poles previously installed by NYSDEC and OPRHP. These poles have not been occupied by Osprey. One of these poles would be replaced with a new taller pole.



Key Issues: This site is sheltered and quiet. Access is difficult and construction impacts high causing significant disturbance to the soft soils of the marsh. Adjacent woodlands are thick and trees are tall. The Buckhorn Weir nest is less than one mile away.

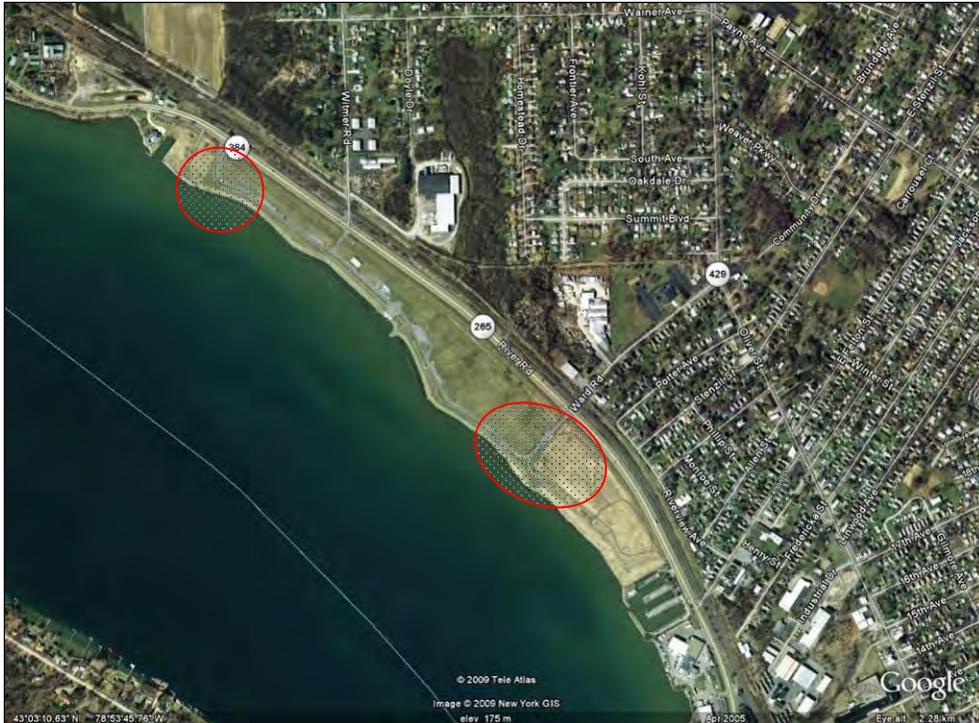


Location: Gratwick Riverside Park

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Ownership: City of North Tonawanda

Description: Gratwick is a popular park that offers local residents parking, picnicking, a boat launch, recreation trail, and shoreline angling. Offshore berms have been constructed to provide wildlife habitat and shoreline angling opportunities.



Key Issues: Gratwick is a wide-open park with no tall trees, and has excellent viewing opportunities and nearby foraging habitat. Access is easy and construction impacts would be low if soils are clean. Disturbance is likely moderate. Tripod design may be required to avoid subsurface excavation.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: 102nd Street Landfill
Ownership: Occidental Chemical Corp
Description: A fenced, remediated and capped landfill adjacent to Griffon Park and the Little Niagara River.



Key Issues: This site is wide open with no trees, provides excellent viewing opportunities, and is immediately adjacent to the Niagara River. A tripod pole design would be necessary to avoid subsurface excavation and disturbance to the landfill cap. The site is completely fenced, essentially eliminating disturbance.

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Adams Slip

Ownership: New York Power Authority

Description: This site harbors NYPA tugs and is adjacent to the Robert Moses Parkway near Niagara Falls. A popular recreation trail runs along the river nearby.



Key Issues: This site provides excellent viewing opportunities from both the recreational trail and the Robert Moses Parkway. It is generally open with scattered trees of medium height. Access is good, and the site is posted and patrolled, minimizing potential disturbance.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Lewiston Reservoir

Ownership: New York Power Authority

Description: The reservoir holds water used for power generation. The perimeter of the reservoir is used by walkers and anglers. Adjacent parklands below the reservoir are used for a variety of recreational activities.

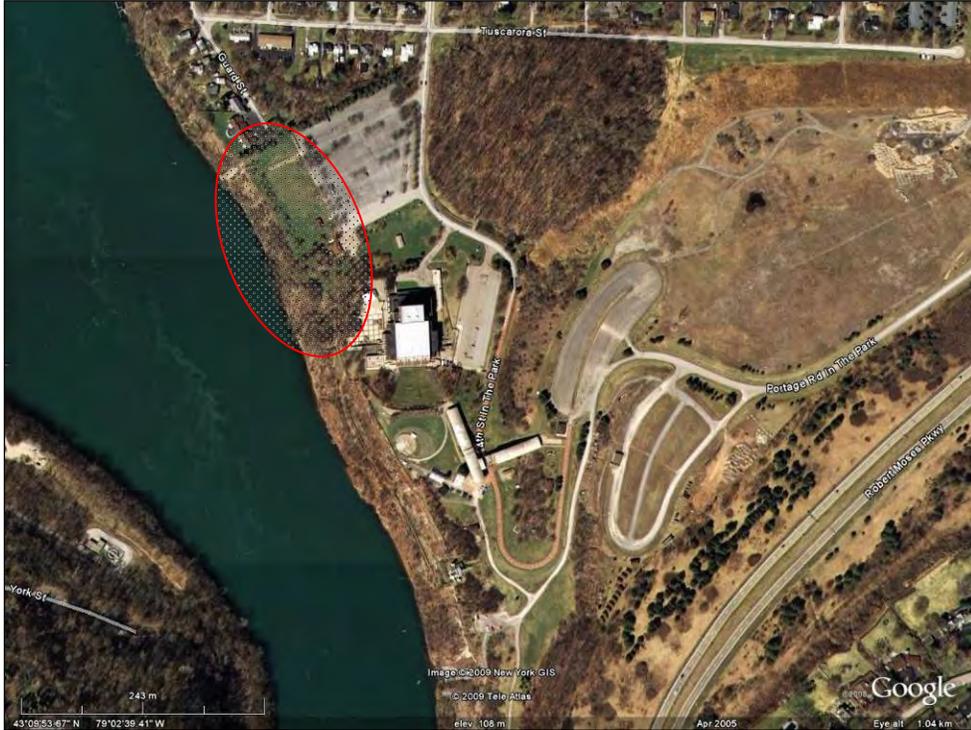


Key Issues: This site is wide open with no surrounding woodlands. The installation of an Osprey platform here would require a design that does not require boring into the reservoir dikes. Disturbance is likely moderate. This site is somewhat off the beaten path and public viewing opportunities are not extensive.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Earl W. Brydges Artpark State Park
Ownership: New York State Office of Parks, Recreation, and Historic Preservation
Description: Artpark is a popular summer recreation venue that hosts a summer concert series.



Key Issues: Disturbance at this site is high and much of the park is surrounded by woodlands with tall trees. Access to the shoreline is poor and upland areas are used by recreationalists.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Stella Niagara shoreline on lower Niagara River
Ownership: Town of Lewiston, Stella Niagara Franciscans
Description: Often referred to as the Stella “flats,” this area is characterized by a relatively low, broad, open shelf on the shoreline of the lower Niagara River.



Key Issues: Adjacent woodlands contain tall trees. Public viewing from land would be from a distance. Access to the shoreline is potentially difficult and construction impacts would be moderate. Disturbance would likely be relatively low.

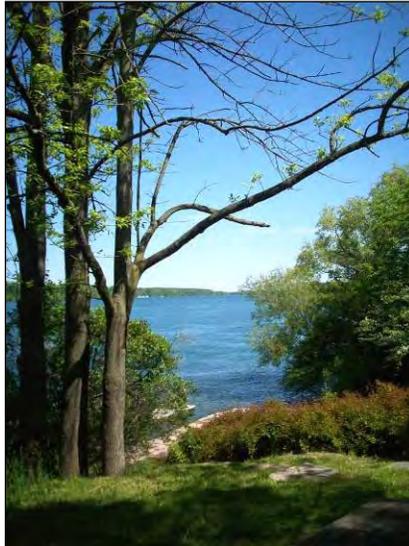
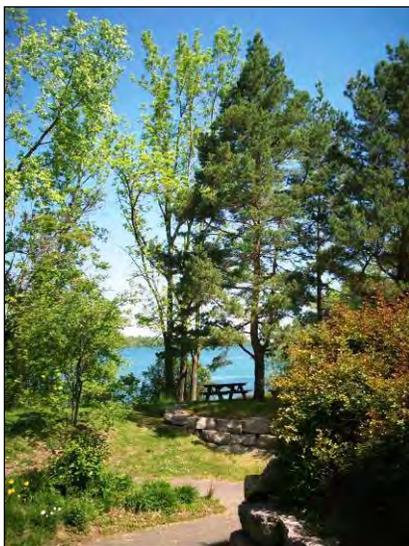


DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Joseph Davis State Park
Ownership: New York State Office of Parks, Recreation, and Historic Preservation
Description: This park is a popular recreation area with several small ponds and access to the lower Niagara River.



Key Issues: The western portion of the park is characterized by tall trees and no open areas along the river. Access would be difficult with moderate impacts. The eastern portions of the park are being restored and managed as open grassland and shrubland habitats. OPRHP feels that other park locations may be more suitable.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

- Location:** Fort Niagara State Park, U.S. Coast Guard Station
Ownership: New York State Office of Parks, Recreation, and Historic Preservation; United State Coast Guard
Description: This lower river site is located at the confluence of the Niagara River and Lake Ontario. Shoreline lands are owned or managed by state and federal agencies.



- Key Issues:** Fort Niagara is an historic structure and a platform would need to be designed that did not require subsurface boring. The Coast Guard station site is likely suitable with excellent viewing for the public and foraging opportunities for Ospreys. Monitoring could be conducted off site with spotting scopes. This site has the potential to be viewed from the Fort with the Osprey platform at almost eye level.



DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Location: Four Mile Creek State Park
Ownership: New York State Office of Parks, Recreation, and Historic Preservation
Description: This site is on the shore of Lake Ontario approximately four miles east of the mouth of the Niagara River.



Key Issues: Four Mile Creek State Park is a popular campground with 275 sites. Disturbance is high and the shoreline areas are bordered by tall trees and thick woodlands to the west. Access to the lawn area is good, but access to the beach or wetland area is poor. Public viewing opportunities and Osprey access to water foraging areas are excellent.



4.0 SITE EVALUATION AND RANKING

Using the criteria listed in Table 2-1, information gathered from stakeholders, and observations made during site visits, this broad list of potential locations was reviewed and each site was assigned a narrative rating for each criterion (Table 4-1). At some sites, for example, potential disturbance was high, adjacent trees tall, access difficult, or potential construction impacts substantial. These sites received lower ratings than other sites.

In order to integrate the results of the various evaluation criteria and prioritize sites, the narrative ratings were converted to a numerical scoring system. The first step in this process was to convert the narrative ratings for each criterion to a numeric value. With one exception, narrative ratings that were in the “More Desirable” column of Table 2-1 were assigned a score of 5, ratings in the middle column were assigned a score of 3, and ratings in the “Less Desirable” column were assigned a score of 1. Scores for Land ownership were scored slightly differently due to uncertainty in knowing the owner’s receptiveness at this early stage in the process and how legal access would be provided; in these cases, public lands were assigned a score of 4 and private lands were assigned a 2. Next, the numerical criterion scores for each site were then added to generate a Total Score. Sites were then sorted by the Total Score, from high to low, with the highest Total Scores representing the best opportunities for osprey platforms (Table 4-2).

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

TABLE 4-1 QUALITATIVE ASSESSMENT OF POTENTIAL LOCATIONS (IN ORDER SOUTH TO NORTH)

Location	Water or Foraging	Nearby Woodland	Tree height	Public Viewing	Disturb-ance	Land	Soils	Access	Impacts
Tifft Nature Preserve	Excellent	Good	Medium	Excellent	Low	Public	Good	Good	Low
Seneca Bluffs, Buffalo R.	Good	Good	High	Good	Medium	Public	Good	Poor	Medium
Strawberry Island	Excellent	Good	Medium	Excellent	Medium	Public	Good	Good	Low
L. Beaver Island HIP marsh	Excellent	Good	Medium	Excellent	Low	Public	Good	Good	Low
Tonawanda Coke	Excellent	Good	High	Good	Low	Private	Good	Good	Low
West River Parkway	Excellent	Good	Medium	Good	Medium	Public	Good	Good	Low
Big Six Mile Marina	Excellent	Good	Medium	Good	High	Public	Good	Good	Low
Spicer Creek	Excellent	Poor	High	Good	Medium	Public	Poor	Poor	High
Buckhorn Island SP marsh	Excellent	Poor	High	Good	Low	Public	Good	Poor	High
Gratwick Park	Excellent	Good	Low	Excellent	Medium	Public	Capped	Good	Low
102 nd Street Landfill	Excellent	Good	Low	Excellent	Low	Private	Capped	Good	Low
Adams Slip, NYPA	Excellent	Good	Medium	Excellent	Low	Public	Good	Good	Low
Lewiston Reservoir	Excellent	Good	Low	Good	Medium	Public	Poor	Good	Medium
Earl W. Brydges Artpark	Excellent	Poor	High	Good	High	Public	Good	Poor	Medium
Stella Niagara shoreline	Excellent	Poor	High	Good	Low	Public	Good	Poor	Medium
Joseph Davis SP	Excellent	Poor	High	Good	Medium	Public	Good	Poor	Medium
Fort Niagara SP	Excellent	Good	Medium	Excellent	Medium	Public	Good	Good	Low
Four Mile Creek SP	Excellent	Poor	High	Excellent	High	Public	Good	Good	Medium

Note: Proximity to other raptors was omitted because none of the sites are thought to be near nests of other raptors

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

TABLE 4-2 QUALITATIVE ASSESSMENT OF POTENTIAL LOCATIONS (IN ORDER BY SCORING RANK)

Location	Water or Foraging	Nearby Woodland	Tree Height	Public Viewing	Disturbance	Land	Soils	Access	Impacts	TOTAL
Tift Nature Preserve	5	3	3	5	5	4	3	3	5	36
L. Beaver Island HIP marsh	5	3	3	5	5	4	3	3	5	36
102 nd Street Landfill	5	3	5	5	5	2	3	3	5	36
Adams Slip, NYPA	5	3	3	5	5	4	3	3	5	36
Strawberry Island	5	3	3	5	3	4	3	3	5	34
Gratwick Park	5	3	5	5	3	4	1	3	5	34
Fort Niagara SP	5	3	3	5	3	4	3	3	5	34
West River Parkway	5	3	3	3	3	4	3	3	5	32
Lewiston Reservoir	5	3	5	3	3	4	1	3	3	30
Tonawanda Coke	5	3	1	3	5	2	3	3	5	30
Big Six Mile Marina	5	3	3	3	1	4	3	3	5	30
Four Mile Creek SP	5	1	1	5	1	4	3	3	3	26
Stella Niagara shoreline	5	1	1	3	5	4	3	1	3	26
Buckhorn Island SP marsh	5	1	1	3	5	4	3	1	1	24
Seneca Bluffs, Buffalo R.	3	3	1	3	3	4	3	1	3	24
Joseph Davis SP	5	1	1	3	3	4	3	1	3	24
Earl W. Brydges Artpark	5	1	1	3	1	4	3	1	3	22
Spicer Creek	5	1	1	3	3	4	1	1	1	20

5.0 RECOMMENDED SITES

The assessment and ranking process resulted in a prioritized list of 18 candidate locations for installing osprey platforms that were based on a variety of biological, installation, and cultural criteria. At the top of the prioritized list, four sites each had a Total Score of 36. These four sites represent the best opportunities for osprey platforms, and the recommendation of this study is to pursue implementation of NYPA's remaining osprey platforms at these locations:

- Tifft Nature Preserve
- Little Beaver Island HIP marsh restoration
- 102nd Street Landfill
- Adams Slip, NYPA boat landing

These sites, and their merits, are discussed in the following sections.

5.1 Tifft Nature Preserve

At Tifft Nature Preserve, the existing short (approximately 25 feet) osprey pole and platform is not utilized by birds and would be replaced to provide a much taller pole that would be more attractive to ospreys. The installation location would provide excellent foraging habitat with few tall trees nearby. This site has excellent viewing opportunities for the public on the Tifft Preserve, and foraging osprey would most likely be seen along the nearby shoreline of Lake Erie as well. An osprey platform at this location would be an asset to this important nature preserve. Dave Spiering, the Staff Ecologist at Tifft Nature Preserve, provided the suggestion for an Osprey HIP pole at this site and noted that a preliminary investigation indicated site access would be relatively straightforward and disturbance to sensitive areas would be low; there is some fill and construction debris near the installation location and soil borings would need to be done to ensure that a pole could be readily installed at this location.

5.2 Little Beaver Island HIP Marsh Restoration

The Little Beaver Island marsh restoration HIP at the southern end of Grand Island would provide an excellent opportunity for an osprey pole and platform. This location would provide

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

excellent opportunities for public enjoyment and would be a valuable addition to the marsh restoration project. This location provides an excellent foraging location, with few tall trees nearby. Disturbance to sensitive areas is expected to be low, and access to the installation location is good. A platform at Beaver Island State Park was requested by OPRHP staff.

5.3 102nd Street Landfill

The wide-open, grassy area on top of the remediated 102nd Street Landfill would provide a good location for an osprey platform with no tall trees nearby. The landfill area is enclosed by a fence that would limit disturbance to osprey nesting at this site. However, the adjacent park, nearby recreation trails, and proximity to popular boating areas would provide excellent viewing opportunities for the public. Because of the history of this site, a design for the pole may be based on a tripod design rather than a single monopole to avoid subsurface excavation.

5.4 Adams Slip, NYPA Boat Landing

NYPA's Adams Slip, used as a tugboat landing area along the Upper Niagara River, is another excellent location for an osprey platform. This location provides excellent habitat right on the river, has firm upland soils, and is highly visible to the public because it is adjacent to the Robert Moses Parkway and a recreational trail. This site is over two-miles from the osprey platform on the weir at Buckhorn Marsh and would be readily visible to visitors to Niagara Falls traveling on the Robert Moses Parkway.

5.5 Alternate Sites

Three other locations, Strawberry Island, Gratwick Park, and Fort Niagara State Park, ranked just below the first four sites listed above, may serve as good alternatives should other factors preclude installation of a platform at the top four sites. Strawberry Island is located just upstream of Beaver Island State Park. An osprey platform at Strawberry Island would be visible from land and the river, and complement the island restoration HIP scheduled for Strawberry Island. This site was one originally suggested in the initial Osprey Nesting Platform HIP (NYPA, 2005).

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

Further downstream, Gratwick Park is also a candidate site for platform installation. This site, however, is likely to have higher disturbance than most of the sites listed above (Table 4-2). At Gratwick, an osprey pole could be installed at either the north end or the south end of the park, depending on the findings of soil borings prior to installation and discussions with the City of North Tonawanda.

Fort Niagara State Park and the adjacent U.S. Coast Guard life boat station is another good location. This is the most suitable of the Lower Niagara River sites since the area is relatively open and not surrounded by tall trees. It is worth noting that the river and Fort can be quite busy during the spring and summer breeding season, and the platform would need to be located a sufficient distance away from the Fort to minimize the noise from musket or cannon fire demonstrations.

5.6 Next Steps

This list of prioritized sites will serve to focus subsequent efforts by NYPA, in consultation with the ESC and resource agencies, to pursue four sites for osprey platform installation. In particular, landowner cooperation and more detailed site-level feasibility assessments (*e.g.*, soil borings, site access, etc.) will likely be needed to help develop and refine an installation approach and design for each of the selected sites.

The remaining four osprey platforms to be installed as part of this HIP are tentatively scheduled to be installed over the next few years, and be completed by 2011. The remainder of the sites on the list may serve as a guide for future osprey platform installation activities by others.

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

6.0 REFERENCES

New York Power Authority. 2005. Investigation of habitat improvement projects for the Niagara Power Project, Niagara Power Project, FERC No. 2216 – Volume 1: Public. Prepared by Kleinschmidt Associates and Riveredge Associates. Prepared for New York Power Authority, White Plains, NY. August.

Poole, A. F., R. O. Bierregaard, and M. S. Martell. 2002. Osprey (*Pandion haliaetus*). *In* The Birds of North America, A. Poole and F. Gill (Eds). The Birds of North America, Inc., Philadelphia, Pennsylvania.

DRAFT
OSPREY HIP ADDITIONAL PLATFORM LOCATIONS

APPENDIX A

Memo from NYPA soliciting public suggestions for platform locations

White Plains Office
123 Main Street
White Plains, NY 10601
914. 287. 3247
914. 287. 3294(Fax)



Memo

To: Niagara Power Project – Ecological Standing Committee
From: Ed Alkiewicz, Licensing Manager
Date: 3/12/2009
Re: Guidance for selecting candidate locations for additional Osprey Nesting Platforms along the Niagara River corridor

As mentioned at the December 10, 2008 Ecological Standing Committee (ESC) meeting, the NYPA is working to identify potential locations for the four remaining Osprey nesting platforms. As part of this process, we developed the following criteria to guide the identification and selection of potential platform locations.

Over the next few weeks, we will be actively searching for potential platform locations using a combination of data sources. We would like to utilize the ESC's extensive local knowledge of the area as one of the sources of information. Therefore, if you are aware of a place that fits well with the attached criteria and might make a good platform location along either the Upper or Lower Niagara River, we would like to hear about it using the form provided at the end of this memo.

We ask that you please provide any recommendations you may have to me in writing by April 24, 2009. The project team will then review and evaluate the candidate list of sites using the selection criteria to identify the most promising Osprey platform locations along the river. This will help focus subsequent efforts to provide future nesting platforms for the Osprey Habitat Improvement Project.

Thank you for your help and we look forward to your suggestions.

Ed Alkiewicz
New York Power Authority
123 Main Street
White Plains, NY 10601
edward.alkiewicz@nypa.gov
Fax: (914) 681-6613
Phone: (914) 287-3247

Instructions for Identifying Potential Osprey Nesting Platform Locations

1. Using your knowledge of the area, and the criteria below, identify candidate site locations for Osprey platforms.
2. Record your suggested location(s) on the attached cards. Please provide as much information as possible to help identify the site location. In addition, please provide your contact information in the event that we have follow-up questions.
3. Please point out your suggested site location using an internet map link.
 - a. Go to: <http://www.flashearth.com/>
 - b. Click the map to explore the Earth...
 - c. Under “// Map Source”, select “Microsoft Virtual Earth”
 - d. Under “// Options”, select “Show crosshair”
 - e. Under “// Search”, type in “Niagara River, NY” (or another search term of your choice)
 - f. Navigate to your suggested site, zooming (+) the crosshairs in to the maximum extent.
 - g. Under “// Location”, click on “// Permanent Link”
 - h. Copy the Web Address from your browser into the suggestion form
(Alternatively, you may write in the Latitude and Longitude values shown).
4. Please return your completed suggestion card(s) to me **by April 24, 2009**.

Selection Criteria for Osprey Nesting Platforms

Each of the criteria described below, and summarized in Table 1, is a potentially important factor in selecting sites for the installation of new nesting poles and platforms for Osprey. These criteria are general in nature. Osprey nest sites may vary widely in their characteristics and there are always exceptions to any rule, but the table outlines factors that may be more or less desirable in most situations. These factors may be more important in attracting Ospreys to new nesting areas than they might be for a well-established or dense local Osprey nesting population.

Distance from water or foraging areas: A site close to water or foraging areas (river, lake, large pond) is generally more desirable than a site far from water or foraging areas. Although some Osprey nest a mile or more from water and foraging areas, most nests are located close to water and foraging areas. In general, closer is better, especially in a population that is just getting established. The best sites would likely be within one-half mile or less of water or foraging areas.

Proximity to other nesting raptors (Bald Eagle, Peregrine Falcon, other Osprey): Other nesting raptors, such as Bald Eagle, Peregrine Falcon, and other Osprey, may hinder the occupation of a new Osprey nesting pole due to the general territorial nature of these birds. Sites more distant from known nests of these raptors are more desirable than sites close to known nests of these raptors. Peregrine Falcons nest on tall buildings, bridges and cliffs.

Bald Eagles nest in large trees, often pine trees near water, and generally distant from human disturbance. Ospreys are known to nest at Buckhorn Marsh and Tonawanda Coke; a platform is located at Buckhorn and one will be installed soon at East River Marsh.

Proximity to thickly forested woodlands: Osprey nest sites near thickly forested woodlands are generally less successful than Osprey nest sites distant from these areas. Thickly forested woodlands may have competing raptors or predators such as Great Horned Owls. Sites that are not close to thickly forested woodlands would be more desirable.

Height of nearest adjacent trees: Ospreys often prefer to nest in trees at least as tall as or taller than the closest surrounding trees. The most desirable sites would have trees that are lower than a pole-mounted platform installed at the site. In general, sites with tall trees nearby would be less desirable.

Ease of public viewing: Nesting Ospreys are a joy to watch, especially with binoculars or spotting scopes. The most desirable sites would provide clear viewing opportunities for the enjoyment of the general public. The best sites might be those that could be observed from land or water. Remote locations that are not easily observed would be less desirable.

Potential disturbance by people, industry, or pets: Disturbance from people, industry, or pets is an important consideration in selecting an Osprey pole location. Although some Ospreys may be surprisingly tolerant of limited or brief disturbances, it is generally most desirable to select sites where such disturbances are minimized. Sites directly adjacent to busy industrial sites, highways, or where large numbers of people and pets congregate are generally less desirable than sites with less disturbance.

Land ownership: Public land is more desirable than private land to facilitate pole installation, management, monitoring, and the enjoyment of the site by the general public. Private land may be acceptable, but would require legally binding agreements for access

Condition of soils at site: The condition of soils at the site of installation is an important consideration as well. The most desirable soils would be firm, dry, clean, upland soils that would provide adequate support for the pole and for the vehicles required for installation. In general, wet, soft, or potentially contaminated soils would not be suitable sites for an Osprey pole, both because of engineering (stability) issues and because of permitting and environmental impact issues.

Ease of access to pole installation location: Osprey poles are tall and heavy and their installation requires access for large wheeled or tracked vehicles. These vehicles will bore holes in the ground and set the poles in place. An access route at least ten feet wide will be necessary for these vehicles to reach the installation site. The most desirable locations would require the least disturbance to lawns, fences, trees, shrubs, or other local features. Sites with close proximity to deeper water may provide access for installation barges. Sites with difficult access would be less desirable.

Potential impacts to sensitive areas from installation (wetlands; rare, threatened, endangered species; cultural resources): The most desirable sites for an Osprey pole installation would have no potential impacts from the pole installation on wetlands, sensitive species or habitats, and cultural resources. Although all sites will be restored, particularly sensitive areas are not suitable for the installation of an Osprey pole and should be avoided.

Table 1. Selection Criteria for Osprey Pole Locations in the Vicinity of the Niagara Power Project.

Criteria	More Desirable → Less Desirable		
Distance from water or foraging areas	Near (On shoreline)	Moderate	Far (over 1 mile)
Proximity to other raptors (Bald Eagle, Peregrine Falcon, other Osprey)	Osprey observed in area and no other raptors known to nest nearby	Osprey observed in area but other raptors known to nest nearby	No Osprey nearby but other raptors known to nest nearby
Proximity to thickly forested woodlands	Far	Moderate	Near
Height of nearest adjacent trees	Low	Moderate	High
Ease of public viewing	Excellent from land or water	Good	Limited
Potential disturbance by people, industry, or pets	Low	Moderate	High
Land ownership	Public	Private with easement or not-for-profit conservation organization	Purchase Private Land
Condition of soils at site	Firm, clean upland soils	Potentially contaminated or moderately unstable soils	Very unstable soils or high potential for contaminants
Ease of access to pole installation location	Easy	Moderate	Difficult
Potential impacts to sensitive areas from installation (wetlands; rare, threatened, endangered species; cultural resources)	Low	Moderate	High

Osprey Nesting Platform Site Suggestion Card
Niagara Power Project
Osprey Habitat Improvement Project – March 2009

Suggestion No.: _____
(For NYPA use only)

Location of Site (address, street, nearest cross-street, property owner, etc.): _____

Description of Site (sketch on back): _____

Internet Map Link to Site (see instruction sheet for details):

Link: _____
Latitude: ____ ° ____ ' ____ . ____ " N Longitude: ____ ° ____ ' ____ . ____ " W

Please provide the following contact information should we have questions regarding your suggestion:

Name: _____

Phone: _____ Email: _____



Osprey Nesting Platform Site Suggestion Card
Niagara Power Project
Osprey Habitat Improvement Project – March 2009

Suggestion No.: _____
(For NYPA use only)

Location of Site (address, street, nearest cross-street, property owner, etc.): _____

Description of Site (sketch on back): _____

Internet Map Link to Site (see instruction sheet for details):

Link: _____
Latitude: ____ ° ____ ' ____ . ____ " N Longitude: ____ ° ____ ' ____ . ____ " W

Please provide the following contact information should we have questions regarding your suggestion:

Name: _____

Phone: _____ Email: _____