

COASTAL FISH & WILDLIFE HABITAT RATING FORM

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Name of Area: **Point Peninsula Marsh**

Designated: **August 15, 1993**

County(ies): **Jefferson**

Town(s): **Lyme**

7½' Quadrangle(s): **Point Peninsula, NY; Cape Vincent South, NY**

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<u>Score</u>	<u>Criterion</u>
16	Ecosystem Rarity (ER) One of the largest, undisturbed, scrub-shrub and forested wetlands on Lake Ontario; rare in the eastern Ontario Plain ecological subzone.
16	Species Vulnerability (SV) Black tern (SC) nesting area.
4	Human Use (HU) Waterfowl hunting opportunities attract visitors from much of Jefferson County.
0	Population Level (PL) No unusual concentrations of any fish or wildlife species are known to occur in the area.
1.2	Replaceability (R) Irreplaceable

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SIGNIFICANCE VALUE = [( ER + SV + HU + PL ) X R]

= **43**

## DESIGNATED HABITAT: POINT PENINSULA MARSH

### HABITAT DESCRIPTION:

Point Peninsula is a seven square mile tongue of land located approximately eight miles south of the Village of Cape Vincent, in the Town of Lyme, Jefferson County (7.5' Quadrangles: Cape Vincent South, NY; and Point Peninsula, NY). The fish and wildlife habitat is an approximate 300 acre flood pond wetland on the west side of the peninsula, separated from Lake Ontario by a narrow sand and cobble barrier beach. Also included in the habitat are the shoal areas immediately west and south of the wetland. Point Peninsula Marsh is a predominantly scrub-shrub and forested wetland, with a very diverse mixture of emergent and woody plant species and a high degree of interspersed. Two unnamed intermittent streams flow into the wetland. A semi-permanent channel connecting the marsh to Lake Ontario is present at the southern end of the area, but it closes periodically due to sand accumulation. The surrounding land area to the north, south, and east, is dominated by mixed deciduous and coniferous woodlands and pastures. The interior is essentially undisturbed, and there is no direct road access into the marsh. The NYS DEC owns adjoining parcels which comprise the Point Peninsula Wildlife Management Area.

### FISH AND WILDLIFE VALUES:

Point Peninsula Marsh is one of the largest areas of predominantly scrub-shrub and forested wetland on the Lake Ontario coast. In addition to its vegetative significance, the wetland is unusual because of its relative isolation and inaccessibility. Point Peninsula Marsh provides valuable habitat for a variety of fish and wildlife species, but few studies of the area have been documented. However, a small colony of black terns (SC) has been documented breeding in the marsh and feeding in the shoals. Recent black tern survey work documented 7 nesting pairs in 1990 and 30 nesting pairs in 1991. Point Peninsula Marsh is also a productive breeding area for waterfowl, such as American black duck, mallard, blue-winged teal, and wood duck. Concentrations of waterfowl and passerine birds also use the area during spring and fall migrations (March - May, and September - November, generally). Other probable or confirmed nesting bird species in the area include black-crowned night-heron, American bittern, eastern kingbird, tree swallow, red-winged blackbird, yellow warbler, and song sparrow. Wetland wildlife species such as raccoon, short-tailed shrew, mink, beaver, muskrat, white-tailed deer, snapping turtle, painted turtle, northern water snake, northern leopard frog, and wood frog would also be expected to occur in the marsh.

The diversity and abundance of wildlife of Point Peninsula Marsh provide substantial opportunities for hunting, trapping and informal nature study. Waterfowl hunting within the marsh and in the nearshore waters attract visitors from much of Jefferson County. However, human use of the area is limited because it is relatively inaccessible and privately owned.

### IMPACT ASSESSMENT:

A **habitat impairment test** must be applied to any activity that is subject to consistency review under federal and State laws, or under applicable local laws contained in an approved local waterfront revitalization program. If the proposed action is subject to consistency review, then the habitat protection policy applies, whether the proposed action is to occur within or outside the designated area.

The specific **habitat impairment test** is as follows.

In order to protect and preserve a significant habitat, land and water uses or development shall not be undertaken if such actions would:

- destroy the habitat; or,
- significantly impair the viability of a habitat.

*Habitat destruction* is defined as the loss of fish or wildlife use through direct physical alteration, disturbance, or pollution of a designated area or through the indirect effects of these actions on a designated area. Habitat destruction may be indicated by changes in vegetation, substrate, or hydrology, or increases in runoff, erosion, sedimentation, or pollutants.

*Significant impairment* is defined as reduction in vital resources (e.g., food, shelter, living space) or change in environmental conditions (e.g., temperature, substrate, salinity) beyond the tolerance range of an organism. Indicators of a significantly impaired habitat focus on ecological alterations and may include but are not limited to reduced carrying capacity, changes in community structure (food chain relationships, species diversity), reduced productivity and/or increased incidence of disease and mortality.

The *tolerance range* of an organism is not defined as the physiological range of conditions beyond which a species will not survive at all, but as the ecological range of conditions that supports the species population or has the potential to support a restored population, where practical. Either the loss of individuals through an increase in emigration or an increase in death rate indicates that the tolerance range of an organism has been exceeded. An abrupt increase in death rate may occur as an environmental factor falls beyond a tolerance limit (a range has both upper and lower limits). Many environmental factors, however, do not have a sharply defined tolerance limit, but produce increasing emigration or death rates with increasing departure from conditions that are optimal for the species.

The range of parameters which should be considered in applying the habitat impairment test include but are not limited to the following:

1. physical parameters such as living space, circulation, flushing rates, tidal amplitude, turbidity, water temperature, depth (including loss of littoral zone), morphology, substrate type, vegetation, structure, erosion and sedimentation rates;
2. biological parameters such as community structure, food chain relationships, species diversity, predator/prey relationships, population size, mortality rates, reproductive rates, meristic features, behavioral patterns and migratory patterns; and,
3. chemical parameters such as dissolved oxygen, carbon dioxide, acidity, dissolved solids, nutrients, organics, salinity, and pollutants (heavy metals, toxics and hazardous materials).

Although not comprehensive, examples of generic activities and impacts which could destroy or significantly impair the habitat are listed below to assist in applying the habitat impairment test to a proposed activity.

Any activity that would substantially degrade water quality, reduce water levels, or increase water level fluctuations in Point Peninsula Marsh could adversely affect wildlife populations in the area, including black terns (SC). Discharges of sewage or stormwater runoff containing chemical pollutants (including fertilizers, herbicides, or pesticides) may result in adverse impacts on wetland wildlife species. Elimination of wetland habitats, or significant human encroachment into the area, through dredging, filling, or construction of roads into the marsh could reduce its value to fish and wildlife. Activities that would subdivide this large, undisturbed area into smaller fragments should be restricted. Temporary habitat disturbances may be most detrimental during wildlife breeding seasons, which extends from March - July for most species. Existing woodlands within and bordering Point Peninsula Marsh should be maintained for their value as cover, perching sites, and buffer zones.