

COASTAL FISH & WILDLIFE HABITAT RATING FORM

Name of Area: **Teal Marsh**

Designated: **October 15, 1987**

County: **Oswego**

Town(s): **Scriba**

7½' Quadrangle(s): **Oswego East, NY**

<u>Score</u>	<u>Criterion</u>
9	Ecosystem Rarity (ER) Relatively large, diverse scrub-shrub and emergent wetland; unusual in Oswego County.
16	Species Vulnerability (SV) Least bittern (SC) nesting.
0	Human Use (HU) No significant fish or wildlife related human uses of the area.
4	Population Level (PL) Concentrations of many wetland wildlife species are unusual in Oswego County.
1.2	Replaceability (R) Irreplaceable.

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

= **35**

DESIGNATED HABITAT: TEAL MARSH

LOCATION AND DESCRIPTION OF HABITAT:

Teal Marsh is located just east of the City of Oswego, in the Town of Scriba, Oswego County (7.5' Quadrangle: Oswego East, N.Y.). The fish and wildlife habitat encompasses an approximate 250 acre wetland, separated from Lake Ontario by a narrow barrier beach. The area is predominantly scrub-shrub and forested wetland, hydrologically connected to the lake via underground seepage through the beach. Two unnamed intermittent streams flow into the wetland. Teal Marsh is densely vegetated, with scattered shallow water areas, small wooded islands, and a highly irregular edge. The surrounding land area to the west, south, and east, is dominated by mixed deciduous and coniferous woodlands. The interior is essentially undisturbed, but areas along the northern shore have been developed into summer camps and residences, resulting in some encroachment into the marsh.

FISH AND WILDLIFE VALUES:

Teal Marsh is the largest area of predominantly scrub-shrub wetland within Oswego County's coastal area. The high degree of interspersion with wooded uplands creates valuable habitat for a variety of fish and wildlife species. Studies of Teal Marsh have documented the presence of at least 50 species of breeding birds, 15 species of mammals, 3 species of reptiles, 4 species of amphibians, and 7 species of fishes in the wetland and fringe areas. Confirmed nesting bird species in the marsh include pied-billed grebe, green-backed heron, least bittern (SC), American bittern, Canada goose, mallard, black duck, blue-winged teal, wood duck, Virginia rail, sora, common moorhen, common snipe, belted kingfisher, marsh wren, hooded warbler, and swamp sparrow. Other wildlife species inhabiting the area include raccoon, short-tailed shrew, gray fox, mink, beaver, muskrat, porcupine, white-tailed deer, snapping turtle, painted turtle, northern water snake, northern leopard frog, and wood frog.

The diversity and abundance of wildlife species in Teal Marsh are unusual in Oswego County. Opportunities for hunting, trapping, and nature study probably attract a small number of local residents to this productive wetland. However, the area is relatively inaccessible and privately owned, limiting human use of these resources.

IMPACT ASSESSMENT:

A **habitat impairment test** must be met for 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** that must be met 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 substantially degrades water quality, increases turbidity or sedimentation, reduces water levels, or increases water level fluctuations in Teal Marsh, would adversely affect a variety of fish and wildlife species. Discharges of sewage or stormwater runoff containing sediments or chemical pollutants (including fertilizers, herbicides, or pesticides) could result in adverse impacts on fish and wildlife resources of the area. Elimination of wetland habitats, or further human encroachment into the area, through dredging, filling, or construction of additional roads, would severely limit its value to fish and wildlife. However, habitat management activities, including expansion of productive littoral areas, may be designed to maintain or enhance populations of certain fish or wildlife species. Activities that would subdivide large, undisturbed areas into smaller fragments should be restricted. Existing woodlands within and bordering Teal Marsh should be maintained for their value as cover, perching sites, and buffer zones.