

COASTAL FISH & WILDLIFE HABITAT RATING FORM

Name of Area: **Ramona Beach Marsh**

Designated: **October 15, 1987**

County: **Oswego**

Town(s): **Richland**

7½' Quadrangle(s): **Pulaski, NY**

Score	<u>Criterion</u>
9	Ecosystem Rarity (ER) Relatively large, undeveloped, emergent wetland ecosystem, unusual in Oswego County.
16	Species Vulnerability (SV) Least bittern (SC) nesting; pugnose shiner (E) reported but not confirmed.
0	Human Use (HU) No significant fish or wildlife related human uses of the area.
0	Population Level (PL) No unusual concentrations of any fish or wildlife species occur in the area.
1.2	Replaceability (R) Irreplaceable

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

= **30**

DESIGNATED HABITAT: RAMONA BEACH MARSH

LOCATION AND DESCRIPTION OF HABITAT:

Ramona Beach Marsh is located approximately five miles west of the Village of Pulaski, in the Town of Richland, Oswego County (7.5 Quadrangle: Pulaski, N.Y.). The fish and wildlife habitat includes an approximate 70 acre emergent wetland that has developed where Snake Creek empties into Lake Ontario. Vegetation in the area is dominated by narrow-leaved and broad-leaved persistent emergents (e.g., cattail, pickerelweed, and burreed); there are also areas of scrub-shrub wetland and submergent aquatic beds. Above the marsh, Snake Creek is a small, medium gradient, intermittent stream. Much of the land area bordering Ramona Beach Marsh is undeveloped forestland. However, the barrier beach separating the marsh from Lake Ontario has been completely developed for seasonal camps and permanent residences. Ramona Beach Marsh is privately owned.

FISH AND WILDLIFE VALUES:

Ramona Beach Marsh is one of the few relatively large and undisturbed wetland areas in Oswego County's coastal area. The marsh has excellent interspersed vegetation cover types and open water, providing favorable habitat conditions for a variety of fish and wildlife. Ramona Beach Marsh supports a full complement of species typically associated with natural coastal wetlands on Lake Ontario.

Extensive beds of submergent aquatic vegetation and stream channel areas in Ramona Beach Marsh serve as productive fish spawning and nursery habitats. These areas support sizeable concentrations of various resident warmwater species, including brown bullhead, white sucker, largemouth bass, and northern pike. Forage fish species reported found in the area include fallfish, cutlips minnow, golden shiner, bluntnose minnow, central mudminnow, pumpkinseed sunfish, and possibly pugnose shiner (E). The fisheries resources in Ramona Beach Marsh attract some recreational fishing use by local residents.

Ramona Beach Marsh is used by a variety of wetland wildlife species. Probable or confirmed breeding bird species include pied-billed grebe, green-backed heron, least bittern (SC), American bittern, mallard, black duck, blue-winged teal, wood duck, Virginia rail, sora, common moorhen, belted kingfisher, marsh wren, common yellowthroat, red-winged blackbird, and swamp sparrow. Black terns (SC) were reported nesting in the marsh in 1976, but use of the area by this species has not been documented since at least 1980. Ramona Beach Marsh provides excellent habitat for furbearers such as beaver, muskrat, mink, and raccoon. Herpetofauna found in the area include snapping turtle, painted turtle, northern water snake, red-bellied snake, bullfrog, green frog, and northern leopard frog. The undisturbed woodlands bordering Ramona Beach Marsh are an integral part of the habitat for many of these species. Ramona Beach Marsh provides opportunities for local residents to enjoy waterfowl hunting, birdwatching, and informal nature study. 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 flows, or increases water level fluctuations in Ramona Beach Marsh (including Snake Creek) 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 insecticides), could adversely impact on fish and wildlife resources of the area. Elimination of wetland vegetation, including submergent beds, through dredging, filling, or bulkheading, would result in a direct loss of valuable habitat area. Barriers to fish migration, whether physical or chemical, could have significant impacts on fish populations in this area. Development of motorboat access to Lake Ontario from this wetland could severely reduce the value of this

area to fish and wildlife, through habitat loss, and increased human disturbance during fish spawning and nursery periods (late February - July for most warmwater species) and wildlife breeding seasons (April - July for most species). Existing woodlands bordering Ramona Beach Marsh should be maintained for their value as cover, perch sites, and buffer areas.