
COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

Name of Area: **Mattituck Inlet Wetlands and Beaches**
County: **Suffolk**
Town(s): **Southold**
7½' Quadrangle(s): **Mattituck Hills, NY**
Originally Designated: **March 15, 1987**
Modified: **October 15, 2005**

Assessment Criteria

Score

Ecosystem Rarity (ER)--the uniqueness of the plant and animal community in the area and the physical, structural, and chemical features supporting this community.

ER assessment: Relatively small, undeveloped tidal wetland with strong tidal flushing into Long Island Sound; rare in Suffolk County.

9

Species Vulnerability (SV)--the degree of vulnerability throughout its range in New York State of a species residing in the ecosystem or utilizing the ecosystem for its survival. (E = Endangered, T = Threatened, SC = Special concern)

SV assessment: Piping plover (E, T-Fed), least tern (T), and osprey (SC) nesting. Roseate tern (E) observed, but nesting not adequately documented. Additive Division: $36 + 25/2 + 16/4 = 52.5$

52.5

Human Use (HU)-- the conduct of significant, demonstrable commercial, recreational, or educational wildlife-related human uses, either consumptive or non-consumptive, in the area or directly dependent upon the area.

HU assessment: No significant fish or wildlife related human uses of the area.

0

Population Level (PL)--the concentration of a species in the area during its normal, recurring period of occurrence, regardless of the length of that period of occurrence.

PL assessment: No unusual concentrations of any fish or wildlife species occur in the area.

0

Replaceability (R)--ability to replace the area, either on or off site, with an equivalent replacement for the same fish and wildlife and uses of those same fish and wildlife, for the same users of those fish and wildlife.

R assessment: Irreplaceable.

1.2

Habitat Index = [ER + SV + HU + PL] = 61.5

Significance = HI x R = 73.8

NEW YORK STATE
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT
NARRATIVE

MATTITUCK INLET WETLAND AND BEACHES

LOCATION AND DESCRIPTION OF HABITAT:

The Mattituck Inlet Wetland and Beaches habitat area is located north of the Village of Mattituck on Long Island Sound, in the Town of Southold, Suffolk County (7.5' Quadrangle: Mattituck Hills, NY). The fish and wildlife habitat consists of approximately 60 acres of tidal wetland and creek, 10 acres of shoals and mudflats, and 80 acres of protected park district land (including beaches) located on either side of the Mattituck Inlet jetties. North of the wetland, Mattituck Inlet, a deepwater inlet with strong tidal flushing, enters Long Island Sound. South of the inlet, Mattituck Creek extends south for one mile with moderate residential and marina development. The wetland is undisturbed, with the majority of the acreage is owned by the New York State Department of Environmental Conservation.

FISH AND WILDLIFE VALUES:

Small, undisturbed tidal wetlands with good tidal flushing are unusual in northern Suffolk County. The Mattituck Inlet Wetland exhibits high primary productivity, supporting a large variety of fish and wildlife species both in the wetland and around the mouth of the inlet to Long Island Sound.

Mattituck beaches both east and west of the inlet have recently provided significant nesting habitat for least terns (T): An annual average of 43 breeding least tern (T) pairs were recorded for the three year period 2000-2002 (281 in peak year). Previous surveys for this species along the beaches during the late 80's and through the 90's yielded no evidence of nesting. An annual average of one pair of piping plover (E, T-Fed) has nested at Mattituck beaches over the 10 year period 1993 through 2002, with a peak of three pairs in 1996. Roseate tern (E) loafing has been noted along Mattituck beaches, but nesting has not been documented. Osprey (SC) have nested consistently on platforms in the state owned portion of the wetland since 1984 and feed in Mattituck Creek.

Mattituck Creek supports a productive local recreational fishery, including bluefish, striped bass, weakfish, fluke, flounder, and porgies. The wetland also serves as an important habitat for a variety of other wildlife as well as marine finfish and shellfish. Surf clams, hard clams, oysters, and blue mussels have been harvested in or adjacent to the habitat area, but there have been pollution problems due to marina development and non-point source inputs, resulting in consequent shellfish closures. Within the habitat, Mattituck Creek is conditionally certified for shellfish harvesting.

IMPACT ASSESSMENT:

Any activity that would substantially degrade the water quality in Mattituck Creek and the Mattituck Inlet Wetlands would adversely affect the biological productivity of this area. Degradation of water

quality, from chemical contamination (including food chain effects resulting from bioaccumulation), oil spills, excessive turbidity, and waste disposal (including vessel wastes) would adversely affect all fish and wildlife. Efforts should be made to improve water quality, including the control and reduction of discharges from vessels and upland sources. Vegetated upland buffer zones should be protected or established to further reduce water quality impairment from upland sources.

Alteration of tidal patterns in Mattituck Creek and the Mattituck Inlet Wetlands could have adverse effects on the fish and wildlife communities present. Dredging to maintain existing boat channels should be scheduled between September 15 and December 15 to minimize potential impacts on aquatic organisms, and to allow for dredged material placement when wildlife populations are least sensitive to disturbance. Dredged material placement in this area would be detrimental, but such activities may be designed to maintain or improve the habitat for certain species of wildlife. Existing and proposed dredging operations in this area should incorporate the use of best management practices to avoid and reduce adverse effects.

Construction of shoreline structures, such as docks, piers, bulkheads, or revetments, in areas not previously disturbed by development, may result in the loss of productive areas which support the fish and wildlife resources of Mattituck Creek and the Mattituck Inlet Wetlands. Elimination of salt marsh and intertidal areas, through loss of tidal connection, ditching, excavation, or filling, would result in a direct loss of valuable habitat area. Alternative strategies for the protection of shoreline property should be examined, including innovative, vegetation-based approaches. Control of invasive nuisance plant species, through a variety of means, may improve fish and wildlife species use of the area and enhance overall wetland values.

Unrestricted use of motorized vessels including personal watercraft in the protected, shallow waters of Mattituck Creek could have adverse effects on aquatic vegetation and fish and wildlife populations. Use of motorized vessels should be controlled (*e.g.*, no wake zones, speed zones, zones of exclusion) in and adjacent to shallow waters and vegetated wetlands.

Thermal discharges, depending on time of year, may have variable effects on use of the area by marine species, such as sea turtles and overwintering waterfowl. Installation and operation of water intakes could have a significant impact on juvenile (and adult, in some cases) fish concentrations, through impingement or entrainment.

HABITAT IMPAIRMENT TEST:

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 in the impact assessment section to assist in applying the habitat impairment test to a proposed activity.

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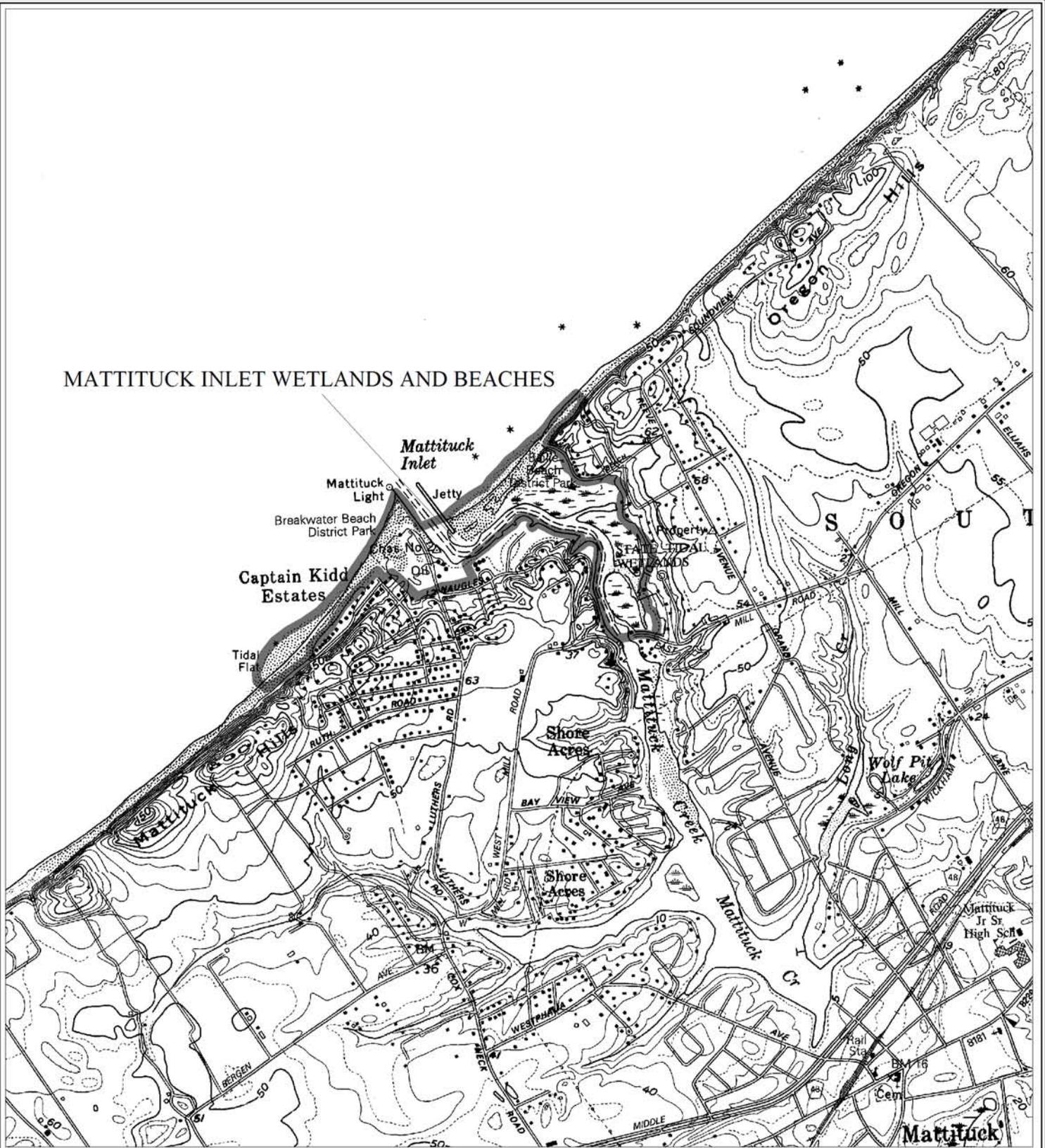
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MATTITUCK INLET WETLANDS AND BEACHES



Significant Coastal Fish and Wildlife Habitats



New York State
Department of State

Division of
Coastal Resources

Mattituck Inlet Wetlands and Beaches

