

**Attachment B:**

COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

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Name of Area: **Southampton Beach**  
Designated: **March 15, 1987**  
Date Revised: **December 15, 2008**  
County: **Suffolk**  
Town(s): **Southampton**  
7½' Quadrangle(s): **Shinnecock Inlet, NY**

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**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: Undeveloped barrier beach ecosystem; rare in New York State, but rarity is diminished by dredged material placement. Geometric mean:  $\sqrt{60} \times \sqrt{25} = 40$ . **40**

**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) and least tern (T) nesting. Additive division:  $36 + 25/2 = 48.5$ . **48.5**

**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: A recreational fishery for bluefish and striped bass of county level significance. **4**

**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 significant population concentrations. **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**

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**Habitat Index: ( ER + SV + HU + PL) = 92.5**

**Significance: (HI x R) = 111**

NEW YORK STATE  
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT  
NARRATIVE

**SOUTHAMPTON BEACH**

LOCATION AND DESCRIPTION OF HABITAT:

Southampton Beach is located south of Shinnecock Bay and east of Shinnecock Inlet, in the Town of Southampton, Suffolk County (7.5' Quadrangle: Shinnecock Inlet, N.Y.). This approximately 285 acre area encompasses a three mile stretch of the barrier beach lying east of Shinnecock Inlet, bordered on the south by the Atlantic Ocean and on the north by the open waters of Shinnecock Bay and a residential area at the eastern end. Due to the dynamic nature of the Atlantic shoreline, the southern boundary of the Southampton Beach significant habitat will reflect the most current land forms, extending to mean low water. A portion of the primary dune area is posted as a bird nesting area, but still receives much disturbance by pedestrians and off-road vehicle traffic.

The fish and wildlife habitat includes open beach and an extensive primary dune zone, including a large dredged material placement area, reaching elevations of 20 to 30 feet. The dredged material area exists within the first 2,500 feet of the land east of the inlet. Moderately heavy growths of beachgrass (*Ammophila breviligulata*) and seaside goldenrod (*Solidago sempervirens*) dominate much of this zone. Maritime beach and maritime dune communities are pervasive throughout the Southampton Beach landscape. Maritime beach is a sparsely vegetated community dominated by beach grass. Maritime beach occurs on unstable sand, gravel, or cobble ocean shores above mean high tide, where the shore is modified by storm waves and wind erosion. The community is an important nesting ground for beach nesting shorebirds. The maritime dune community is comprised of grasses and low shrubs in a mosaic of vegetated patches dominated by beach grass, and seaside goldenrod. High and low salt marsh communities exist along the fringes of the bay shoreline. Associations of these communities include smooth cordgrass (*Spartina alterniflora*), salt hay grass (*Spartina patens*), and glasswort species (*Salicornia spp.*).

Seabeach amaranth (E, T-Fed) (*Amaranthus pumilus*), commonly associated with piping plover (E, T-Fed), has been observed at this site. Seabeach amaranth (E, T-Fed) has been eliminated from two-thirds of its historic global range with typically fewer than 5 occurrences in New York State.

FISH AND WILDLIFE VALUES:

Southampton Beach is an important segment of undeveloped barrier beach on Long Island. Most of this area has been designated as part of the National Coastal Barrier Resources System, one of only twelve such areas on Long Island. While this ecosystem type is generally rare in New York State, portions of Southampton Beach have been degraded by dredged material placement, heavy recreational use, and residential development at the eastern end. Nevertheless, this area is a valuable habitat for a number of

migratory bird species. Southampton Beach was investigated by the U.S. Fish and Wildlife Service in 1982 as one of four primary sites for baseline studies on Long Island's south shore. These studies documented the presence of at least 22 species of breeding birds, 8 species of mammals, and 1 species of amphibian. Shorebird species present include the piping plover (E, T-Fed) and least tern (T). For the 13 year period from 1993-2005, an estimated annual average of 6 breeding pairs (12 in peak year) of piping plover (E, T-Fed) and 19 breeding pairs (32 in peak year) of least tern (T) were recorded. Least tern (T) typically nest in association with black skimmer (SC) and other tern species in large colonies located in sand, gravel, shells, and seaweed above the high tide mark. Piping plovers (E, T-Fed) nest in association with least tern (T), but well above the high tide mark in generally grassless sand beaches. Numbers for least tern (T) have declined since 1985. In the 4 year span from 1982-1985 an estimated average concentration of 76 least tern (T) breeding pairs nested on Southampton Beach, primarily on dredged material sites. Since 1985 natural ecological vegetative succession and other natural processes have transformed portions of the Southampton Beach landscape into less favorable, hilled, vegetated sites. Other possible bird species in the area include mallard, American oystercatcher, willet, horned lark (SC), sharp-tailed sparrow, and seaside sparrow (SC). Barrier beach dunelands such as those found on Southampton Beach are essential resting and feeding areas for migrating raptors, which move south through a very narrow corridor along the south shore. These birds forage extensively among the undeveloped barrier beaches, where concentrations of small mammals, migrant shorebirds and passerine birds provide an important prey base. The wetland areas on Southampton Beach are valuable feeding areas for a variety of shorebirds and waterfowl throughout the year, and contribute to the biological productivity of Shinnecock Bay. Southampton Beach also provides important access for mobile sportsfishermen who use off-road vehicles to reach the valuable surf fishery at this site. The fish and wildlife habitat encompasses all of Shinnecock East County Park, which receives heavy recreational use for camping and fishing.

#### IMPACT ASSESSMENT:

Any activity that would disturb or eliminate marsh, natural beach, and duneland plant communities would result in a loss of valuable habitat for a number of important wildlife species. Nesting shorebird species inhabiting the barrier beaches of Long Island are highly vulnerable to disturbance by humans from March 15 through August 15. Significant pedestrian traffic or recreational use (e.g., boat and personal watercraft landing, off-road vehicle use, picnicking) of the upper beach, dunes, and wetland areas could easily eliminate the use of this site as a nesting area and should be minimized during this period. Reduction, or loss of the area presently utilized by nesting colonies could significantly affect the bird populations in this vicinity. Predation of chicks and destruction of eggs or nests by unleashed pets (e.g., dogs, cats) and natural predators may also occur, and predator control should be implemented where feasible. Appropriate placement of trash receptacles and signs promoting proper trash disposal would be beneficial to the habitat as beach lying trash may attract additional predators to sensitive populations. Continued fencing and/or annual posting of the bird nesting area should be provided to help protect the nesting bird species. Unregulated dredged material placement in this area would be detrimental to the habitat area, but such activities may be designed to maintain or improve the habitat, by setting back vegetative succession.

Elimination and fragmentation of the natural dune and wetland communities, through excavation, filling, or other land developments would adversely affect concentrations of a wide variety of bird species which depend on these areas during nesting and migration. Construction of adjacent recreational facilities should be designed to minimize impacts to the nesting areas. Construction of new or maintenance of

existing erosion control structures which interfere with natural coastal process should be carefully evaluated for need and where possible, non-structural solutions should be utilized.

#### 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.

#### KNOWLEDGEABLE CONTACTS:

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NYSDEC  
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