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COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

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Name of Area: **Huntington Bay**  
County: **Suffolk**  
Town(s): **Huntington**  
7½' Quadrangle(s): **Lloyd Harbor, NY-CT**  
Originally Designated: **March 15, 1987**  
Modified: **October 15, 2005**

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**Assessment Criteria** \_\_\_\_\_ **Score**

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**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: Large open water embayment, lacking significant shallow water areas, wetlands, or tidal flats; ecosystem type not rare in Suffolk County. 0

**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 common tern (T) feeding.  
Additive Division:  $36 + 25/2 + 25/4 = 54.75$  54.75

**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: Commercial and recreational shellfisheries of regional significance and finfisheries of county-level significance. Additive Division:  $9 + 4/2 = 11$  11

**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: Wintering waterfowl of significance on the north shore of Long Island, between county and regional level. Geometric mean:  $\sqrt{(9 \times 4)} = 6$  6

**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] = 71.75** **Significance = HI x R = 86.1**

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NEW YORK STATE  
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT  
NARRATIVE

**HUNTINGTON BAY**

LOCATION AND DESCRIPTION OF HABITAT:

Huntington Bay is located on the north shore of Long Island, between Lloyd Harbor and Northport Harbor in the Town of Huntington, Suffolk County (7.5' Quadrangle: Lloyd Harbor, NY-CT). The bay is approximately 1,880 acres in size. The fish and wildlife habitat consists of intertidal flats and open water varying in depth from 3 to 30 feet below mean low water, with maximum depths of over 50 feet. The area has a tidal range of approximately 7 feet. The bay is bordered by residential development to the south, and a mix of undeveloped sand peninsulas and light residential development to the east and west. The Target Rock National Wildlife Refuge also borders the bay on the west. Huntington Bay opens into Lloyd Harbor on the west, Huntington Harbor on the southwest, Northport Bay on the east and Long Island Sound on the north.

FISH AND WILDLIFE HABITAT VALUES:

Huntington Bay is one of several major embayments on Long Island's north shore. The bay serves as a feeding area for shorebirds nesting at Sand City and Eaton's Neck Point, including least tern (E), common tern (T), and piping plover (E, T-Fed). Huntington Bay is also an important waterfowl wintering area (November - March) on the north shore of Suffolk County. Mid-winter aerial surveys of waterfowl abundance for the period from 1986-1999 (excluding 1997) indicate average concentrations of approximately 772 birds in the bay each year (1706 in peak year), including approximately 250 greater and/or lesser scaup (1400 in peak year) along with lesser numbers of mallard, American black duck, canvasback, Canada goose, common goldeneye, red-breasted merganser, and long-tailed duck. Concentrations of waterfowl also occur in Huntington Bay during spring and fall migrations (March - April and October - November, respectively).

Huntington Bay is also a highly productive area for marine finfish and shellfish. The bay serves as a nursery and feeding area (from April 1 - November 30, generally) for scup, bluefish, Atlantic silversides, Atlantic menhaden, striped bass, and blackfish. As a result of the abundant fisheries resources in the bay, Huntington Bay supports a moderate recreational fishery for finfish, of county-level significance, as well as a commercial and recreational hard clam fishery of regional significance. Fiddler crabs, ribbed mussels, and oysters are abundant in the bay as well. Huntington Bay continues to receive shellfish from uncertified waters for cleaning and spawning relay. Lobsters are found at the mouth of the bay and farther offshore. The Huntington Bay shoreline has also been documented as a winter harbor seal haul-out area.

Huntington Bay and nearby portions of Long Island Sound may also be important feeding and resting habitat for juvenile Atlantic ridley sea turtles (E), especially in late summer and fall (August 15-December 15). More documentation is needed on the use of the area by this species as well as other

sea turtle species.

#### IMPACT ASSESSMENT:

Any activity that would substantially degrade the water quality in Huntington Bay would adversely affect the biological productivity of this area. All species of fish and wildlife would be affected by water pollution, such as chemical contamination (including food chain effects resulting from bioaccumulation), oil spills, excessive turbidity, and waste disposal (including vessel wastes). Efforts should be made to improve water quality in the bay, including the reduction or elimination of discharges from vessels and upland sources. Vegetated upland buffer zones should be protected or established to reduce non-point source pollution and sedimentation from upland sources.

Alteration of tidal patterns in Huntington Bay could have major impacts on the fish and wildlife communities present. No new navigation channels should be excavated within the area. Dredging to maintain existing boat channels should be scheduled between September 15 and December 15 to minimize adverse effects on aquatic organisms, and to allow for the upland placement of dredged material 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 Huntington Bay. Elimination of salt marsh and intertidal areas, through loss of intertidal connection, ditching, excavation, or filling, would result in a direct loss of valuable habitat. 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 Huntington Bay 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 and wintering waterfowl. Installation and operation of water intakes could have a significant impact on juvenile (and, in some cases, adult) 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.

#### KNOWLEDGEABLE CONTACTS:

Habitat Unit  
NYS Department of State  
Division of Coastal Resources  
41 State Street  
Albany, NY 12231  
Phone: (518) 474-6000

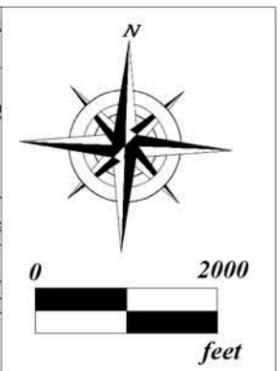
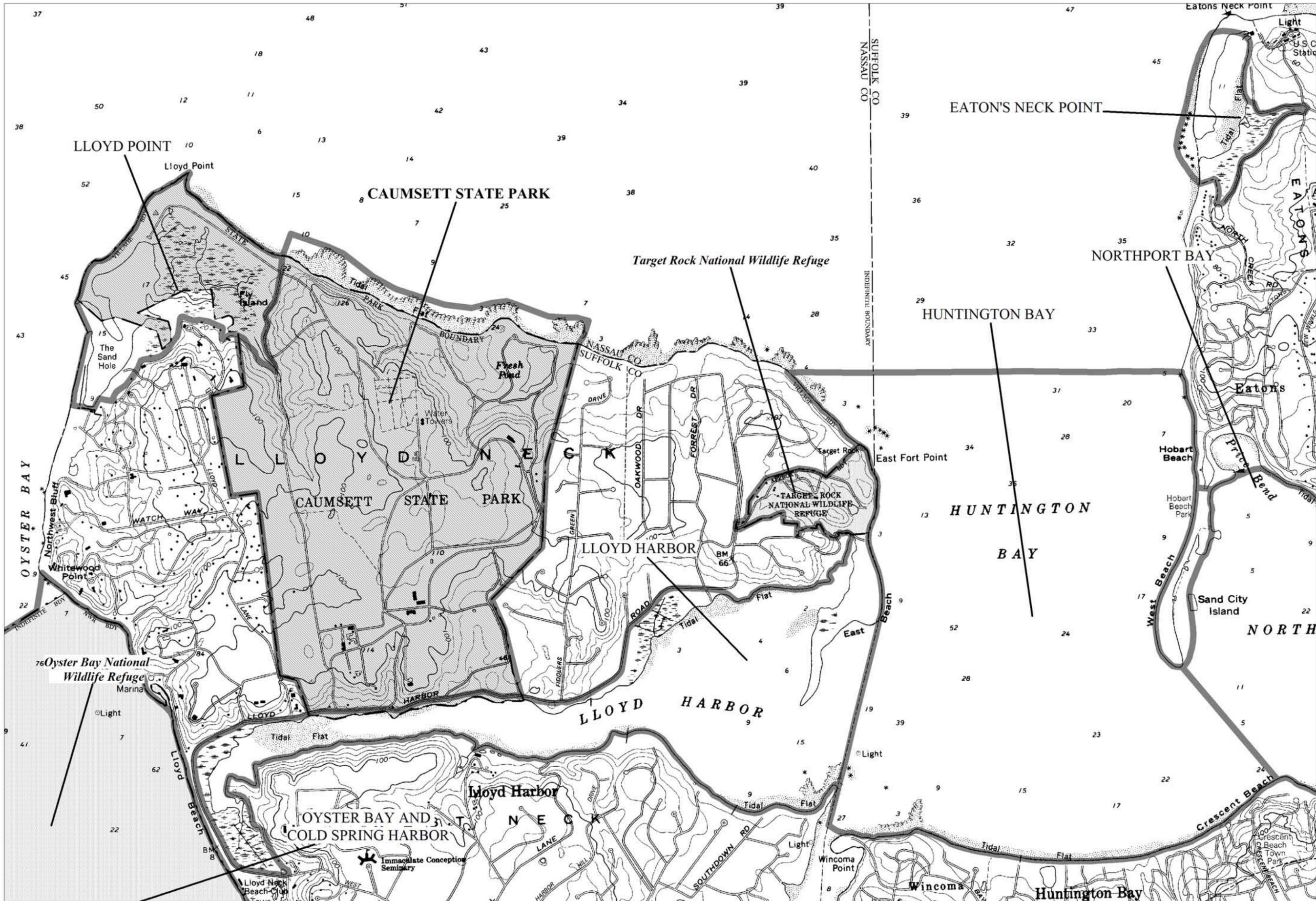
NYSDEC—Region 1  
State University of New York, Building 40  
Stony Brook, NY 11790-2356  
Phone: (631) 444-0354

Bureau of Marine Resources  
NYSDEC  
205 N. Belle Meade Road, Suite 1  
East Setauket, NY 11733  
Phone: (631) 444-0430

New York Natural Heritage Program  
625 Broadway, 5<sup>th</sup> Floor  
Albany, NY 12233-4757  
Phone: (518) 402-8935

Office of Ecology  
Suffolk County Dept. of Health Services  
Bureau of Environmental Management  
County Center  
Riverhead, NY 11901  
Phone: (516) 852-2077

Town of Huntington  
Department of Maritime Services  
100 Main Street  
Huntington, NY 11743-6990  
Phone: (516) 351-3186



### Significant Coastal Fish and Wildlife Habitats

- Caumsett State Park
- Eaton's Neck Point
- Huntington Bay
- Lloyd Harbor
- Lloyd Point
- Sand City (Eaton's Neck)
- Cold Spring Harbor (In Part)
- Northport Bay (In Part)