COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

Name of Area:	**Long Beach Bay**
Designated:	**March 15, 1987**
Date Revised:	**May 15, 2002**
County:	**Suffolk**
Town(s):	**Southold**
7½' Quadrangle(s):	**Orient, NY-CT**

Assessment Criteria

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 undisturbed coastal wetland and beach ecosystem, rare in New York State. Eelgrass beds of statewide significance. 64

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.

SV assessment: Atlantic ridley (E), green (T), and loggerhead (T) turtles documented in area. Osprey (SC), piping plover (E, T-Fed), and least tern (T) nesting.
Calculation: 36 + (36/2) + (25/4) + (25/8) + (25/16) = 64.98

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 shellfishing area of significance in the northeast region of the United States. Various fish and wildlife recreational activities including clamming are important to Suffolk County residents. Calculation: 25 + (4/2) = 27

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: Concentrations of scallops unusual in northeastern United States; nesting osprey unusual in the State; nesting piping plover and least terns unusual in Suffolk County. 25

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] = 180.98 **Significance = HI x R = 217.2**

NEW YORK STATE
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT
NARRATIVE

LONG BEACH BAY

LOCATION AND DESCRIPTION OF HABITAT:

Long Beach Bay is located on the northeastern fork of Long Island, one mile east of the hamlet of Orient, in the Town of Southold, Suffolk County (7.5' Quadrangle: Orient, NY-CT). This approximately 1,300 acre habitat includes Long Beach Bay, the adjacent State-owned tidal salt marsh areas, and Orient Beach State Park, which is comprised of a long, narrow, sand peninsula protecting the bay area. This area contains a rare example of maritime cedar forest. A salt marsh restoration project, conducted by Cornell Cooperative Extension Marine Program, has occurred on site. Most of the open water area of Long Beach Bay is less than 6 feet deep at mean low water. The Long Beach Bay area also includes the eelgrass beds to the south of the peninsula, to a depth of approximately 10 feet along Long Beach and along the northern portion of Orient Beach State Park.

FISH AND WILDLIFE VALUES:

Long Beach Bay and Orient Point Marshes comprise a large and relatively undisturbed coastal estuarine ecosystem. Areas such as this are rare in New York State, and provide habitat for a diversity of fish and wildlife species.

The Long Beach Bay area is one of the largest nesting concentrations of osprey (SC) in New York. Almost all of the nests are located on man-made platforms placed around the perimeter of the bay. Significant populations of piping plover (E, T-Fed) and least tern (T) nest annually on Orient Beach. During 1987-1996, numbers of plover nesting pairs have increased; an annual average of 8 pairs and a peak number of 12 pairs (1989) was observed. Least tern averaged 44 nesting pairs annually during the same period, with actual numbers ranging from 7 to 123 pairs (1991 peak).

A variety of seabirds, shorebirds, and wading birds use this area for feeding or for stopovers during migration. This area is especially significant as a feeding area for herons, egrets, and ibis which nest on nearby Plum Island. Diamondback terrapin are frequently observed in the marsh. This area may provide important breeding habitat for horseshoe crab, but additional documentation is required.

Long Beach Bay is also an important waterfowl wintering area in Suffolk County. Annual aerial surveys of waterfowl abundance during winter for the 1975-1984 period observed average concentrations of over 300 birds in the bay; for the 1986-1996 period an average of over 100 birds were observed each year. Species observed by aerial survey included American black duck, goldeneye, Canada goose, mute swan, and lesser numbers of merganser, bufflehead, and

oldsquaw. The 1996 Christmas Bird Count for Orient Point found several hundred individuals of each of the following species: greater scaup, oldsquaw, Canada goose, white-winged scoter, surf scoter, common goldeneye, and red-breasted merganser.

A 1996 Peconic Estuary Program study documented a number of eelgrass beds within Long Beach Bay itself, as well as beds of moderate size to the south of Orient Beach and at the bay mouth west of Peters Neck Point. These beds provide important habitat for benthic macrofauna such as the bay scallop. Atlantic ridley (E), green (T), and loggerhead (T) turtles have been documented in the habitat area south of the peninsula.

Fish and wildlife recreational activities in the area important to the residents of Suffolk County include waterfowl hunting, fishing, and birdwatching. Bay scallops are abundant in Long Beach Bay, contributing to a commercial shellfishery of significance in the northeastern United States. Also, the bay is one of the top three areas for clams in the Town of Southold, of significance in Suffolk County. Waters of the Narrow River are closed to shellfishing year round. The canal in Hallocks Bay and half of Little Bay are closed to shellfishing between May 1 and October 31.

The New York Natural Heritage Program has documented several listed and rare plant species in this area, including: scotch lovage (*Ligusticum scothicum*, E), dwarf glasswort (*Salicornia bigelovii*), and seabeach knotweed (*Polygonum glaucum*).

IMPACT ASSESSMENT:

Any activity that would degrade water quality, disrupt tidal patterns, increase sedimentation, or eliminate wetlands would adversely affect the birds and shellfish found in this area. All species of fish and wildlife may be affected by water pollution, such as chemical contamination (including food chain effects resulting from bioaccumulation), oil spills, excessive turbidity, waste disposal (including boat wastes) and stormwater and road runoff. Tidal wetlands habitats, which assist in maintaining water quality, are especially vulnerable to activities that disrupt tidal patterns, and reduce or eliminate tidal connection. Eelgrass beds are also particularly sensitive to water quality degradation. Restoration opportunities for eelgrass may exist in the Long Beach Bay if water quality parameters are appropriate, and should be explored. It is essential that high water quality be maintained in the bay to protect the bay scallop and hard clam fishery.

Unrestricted use of motorized vessels including personal watercraft in the protected, shallow waters of bays, harbors, and tidal creeks can 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.

Development of harbor facilities and construction of breakwalls or bulkheads would result in the loss of productive areas which support the fish and wildlife resources of Long Beach Bay. Alternative strategies for the protection of shoreline property should be examined, including innovative, vegetation-based approaches. Docks may be detrimental to nearshore eelgrass beds because of shading, and review of proposed new docks in the Long Beach Bay area should be conducted with these potential impacts to eelgrass beds in mind.

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.

Nesting shorebirds inhabiting Long Beach Bay are highly vulnerable to disturbance by humans, especially during the nesting and fledging period (March 15 through August 15). Significant pedestrian traffic or recreational vehicle use of the beach could easily eliminate the use of this site as a breeding area and should be minimized during this period. Recreational activities (*e.g.*, boat and personal watercraft landing, off-road vehicle use, picnicking) in the vicinity of bird nesting areas should be minimized during this period. 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. Fencing and/or continued annual posting of shorebird nesting areas should be provided to help protect these species. Control of vegetative succession, through beneficial use of dredged material or other means may improve the availability of nesting habitat in this area.

KNOWLEDGEABLE CONTACTS:

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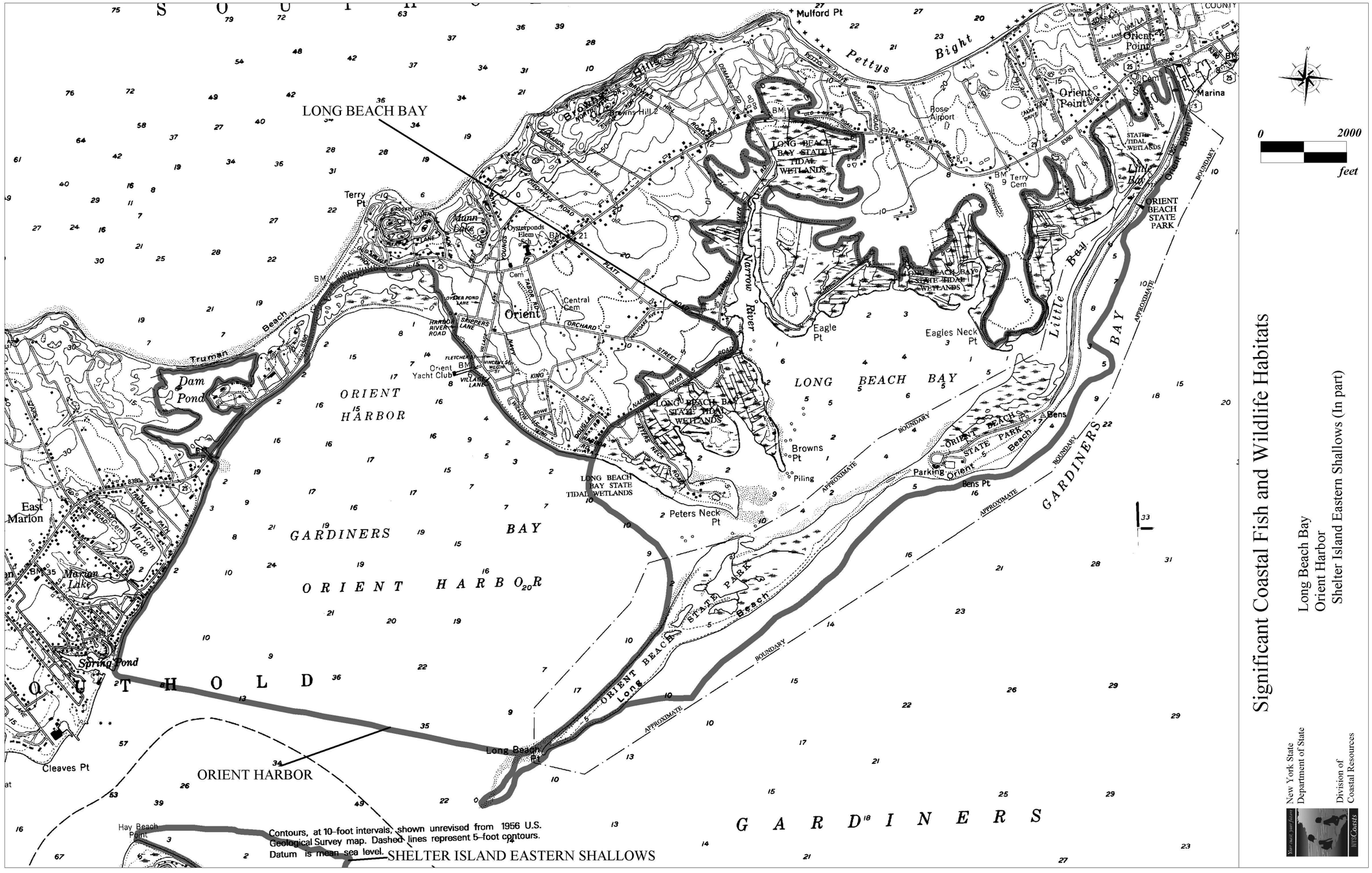

Significant Coastal Fish and Wildlife Habitats

Long Beach Bay
Orient Harbor
Shelter Island Eastern Shallows (In part)

New York State Department of State
Division of Coastal Resources

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