

COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

Name of Area: **Napeague Harbor**
Designated: **March 15, 1987**
Date Revised: **May 15, 2002**
County: **Suffolk**
Town(s): **East Hampton**
7½' Quadrangle(s): **Gardiners Island East, NY; Napeague Beach, NY**

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, undeveloped, coastal bay and wetlands ecosystem; rare on Long Island outside of the major bays on the south shore. 25

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: Least tern (T), roseate tern (E), common tern (T), piping plover (E, T-Fed), osprey (SC), horned lark, black skimmer (SC), grasshopper sparrow (SC), northern harrier (T) nesting and feeding. Hognose snake (SC), spotted turtle (SC), eastern spadefoot toad also present. Calculation: $36 + (36/2) + (25/4) + (25/8) + (16/16) =$ 64.38

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 shellfishery 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: Locally important concentrations of winter flounder. 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] = 93.38

Significance = HI x R = 112.1

NEW YORK STATE
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT
NARRATIVE

NAPEAGUE HARBOR

LOCATION AND DESCRIPTION OF HABITAT:

Napeague Harbor is located on the north shore of the south fork of Long Island, approximately five miles west of the hamlet of Montauk, in the Town of East Hampton, Suffolk County (7.5' Quadrangles: Gardiners Island East, NY; and Napeague Beach, NY). The fish and wildlife habitat includes the entire harbor, Napeague Meadows, and Hicks Island, most of which are within the undeveloped Napeague State Park. The habitat also includes Goff Point, in Hither Hills State Park. This approximate 1,300 acre area contains relatively shallow open water (less than 10 feet deep at mean low water), eelgrass beds, a large expanse of salt marsh, upland meadows, and sparsely vegetated sand and pebble peninsulas. The rare sea level fen plant community is found at this site. Napeague Harbor is generally bordered by undeveloped land, with the exception of small residential areas on the southeast and west sides.

FISH AND WILDLIFE VALUES:

Napeague Harbor is one of the least developed of several large coastal bays in eastern Long Island. A portion of the habitat has been designated as part of the national Coastal Barrier Resources System, one of 67 such areas on Long Island. This area is a high quality and productive estuarine ecosystem, supporting a diversity of fish and wildlife species that is rare on Long Island, outside of the major coastal bays on the south shore.

Napeague Harbor is an important nesting and feeding area for many migratory bird species. Osprey have historically nested in Napeague Meadows; in 1996 2 pairs of osprey (SC) nested here using a man-made nesting platform placed in the marsh and the old IT&T tower. These sites fledged 4 osprey in 1999.

Hicks Island and Goff Point are important nesting areas for piping plover (E, T-Fed), least tern (T), roseate tern (E), common tern (T), black skimmer (SC), herring gull, great black-backed gull and horned lark (SC). The annual average number of pairs of piping plover nesting at this location during 1987-1996 was three; the annual number of nesting pairs of this species has increased steadily from one or two pairs in the mid-1980's to five or six pairs annually in the mid-1990's. Town of East Hampton plover monitoring documents an annual average of 2 plover pairs nesting at Hick's Island between 1995 and 1999, with an average of 2 fledglings annually.

During the early 1980's Napeague Harbor supported one of the 10 largest common tern colonies and one of the 5 largest roseate tern concentrations on Long Island. Several hundred pairs of common tern nested at this location annually during the 1988-1990 period; however, these numbers declined sharply to a low of two pairs in 1997. Roseate tern were observed nesting in

the Napeague Harbor area during the late 1980's (16 to 36 pairs), but since 1992 have not nested. An annual average of 40 nesting pairs of least tern were observed at this location during the 1987-1996 period. The annual number of least tern nesting pairs increased from the late 1980's through the early 1990's to reach a high of 98 pairs; however, this species nested sporadically at this site in the late 1990s.

Other probable or confirmed nesting bird species in the Napeague Harbor area include Canada goose, American black duck, wood duck, red-breasted merganser, northern harrier (T), fish crow, grasshopper sparrow (SC) and sharp-tailed sparrow. Locally significant concentrations of wintering waterfowl occur in open water portions of the harbor. Mid-winter aerial surveys of waterfowl abundance for the 1975-1996 period indicate average concentrations of over 100 birds in the harbor each year (676 in peak year), including scoter, American black duck, bufflehead, common goldeneye, and red-breasted merganser. In addition to these species, 1996 Christmas counts observed high numbers of oldsquaw and herring gull, and moderate numbers of common loon (SC), black-bellied plover, Bonaparte's gull, great black-backed gull, and ring-billed gull.

Napeague Harbor is a highly productive area for marine finfish, shellfish, and other wildlife. Sandy upland areas around Napeague Harbor provide suitable habitat for eastern hognose snake (SC). The wetlands around the Harbor support a large spotted turtle (SC) population, and eastern spadefoot toad (SC) breed in the area. This area may provide important breeding habitat for horseshoe crab, but additional documentation is required. The harbor serves as a nursery and feeding area (April-November, generally) for winter flounder, summer flounder, bluefish, striped bass, and scup, providing an excellent sport fishery for local residents. Healthy eelgrass beds are present along the eastern shore of Napeague Harbor, and south and southeast of Goff Point and Hick's Island, respectively. The hard clam population in Napeague Harbor is the largest in East Hampton Town. Soft clams are also abundant in the harbor, and both species are important in Suffolk County for recreational and commercial shellfishing. The once-abundant bay scallop population has undergone substantial decline. The Town of East Hampton keeps several floating racks of hatchery-raised clam and oyster seed in Napeague Harbor.

The New York Natural Heritage Program cites an excellent occurrence of the rare seabeach knotweed at Goff Point, considered a high priority survey site; a number of rare plants occur in Napeague Meadows, including marsh straw sedge (*Carex hormathodes*), coast flatsedge (*Cyperus polystachyos* var *texensis*), marsh fimbry (*Fimbristylis castanaea*, T), New England blazing-star (*Liatris scariosa* var *nova-angliae*), pine-barren sandwort (*Minuartia caroliniana*), evening primrose (*Oenothera oakesiana*), seaside plantain (*Plantago maritima* ssp *juncooides*), sea-pink (*Sabatia stellaris*), and heart sorrel (*Rumex hastatulus*, T). This area supports an example of the rare sea level fen community.

IMPACT ASSESSMENT:

Any activity that would substantially degrade the water quality in Napeague Harbor would adversely affect the biological productivity of this area. The water quality in this area is extremely high, and Napeague Harbor is open for shellfishing year-round. Road runoff from New York State Route 27 is identified as a significant contributor to non-point pollution in

Napeague Harbor. 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. A 1996 Peconic Estuary Program study recommends Napeague Harbor as an appropriate location (one of four areas) to implement eelgrass restoration; the success of this type of restoration depends primarily on water quality.

Docks may be detrimental to nearshore eelgrass beds because of shading, and review of proposed new docks in the area should be conducted with potential impacts to eelgrass beds fully considered. 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.

Alteration of tidal patterns in Napeague Harbor could have major impacts on the fish and wildlife communities present. Dredging to maintain boat channels in the harbor should be scheduled between September 15 and December 15 to minimize potential impacts on aquatic organisms, and to allow for dredged material disposal when wildlife populations are least sensitive to disturbance.

Elimination of salt marsh and intertidal areas, through excavation, filling, or loss of tidal connection, would result in a direct loss of valuable habitat area. Invasion by *Phragmites australis*, frequently along eroding vector control ditches, is a potential threat to the tidal wetlands surrounding Napeague Harbor. 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. Dredged material disposal in this area would be detrimental, but such activities may be designed to maintain or improve the habitat for certain species of wildlife.

Construction of shoreline structures, such as docks, piers, bulkheads, or revetments, in areas not previously disturbed by development (*i.e.*, natural beach or salt marsh), may result in the loss of productive areas which support the fish and wildlife resources of Napeague Harbor. Alternative strategies for the protection of shoreline property should be examined, including innovative, vegetation-based approaches. Effort should be made to acquire private wetland parcels surrounding Napeague Harbor. Overnight mooring of recreational boats is prohibited by the Town of East Hampton to prevent adverse impacts to sensitive habitats and fish and wildlife populations.

Nesting shorebirds inhabiting the Napeague Harbor area are highly vulnerable to disturbance by humans, especially during the nesting and fledgling 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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Bureau of Marine Resources
NYSDEC
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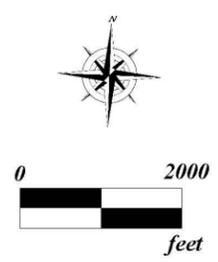
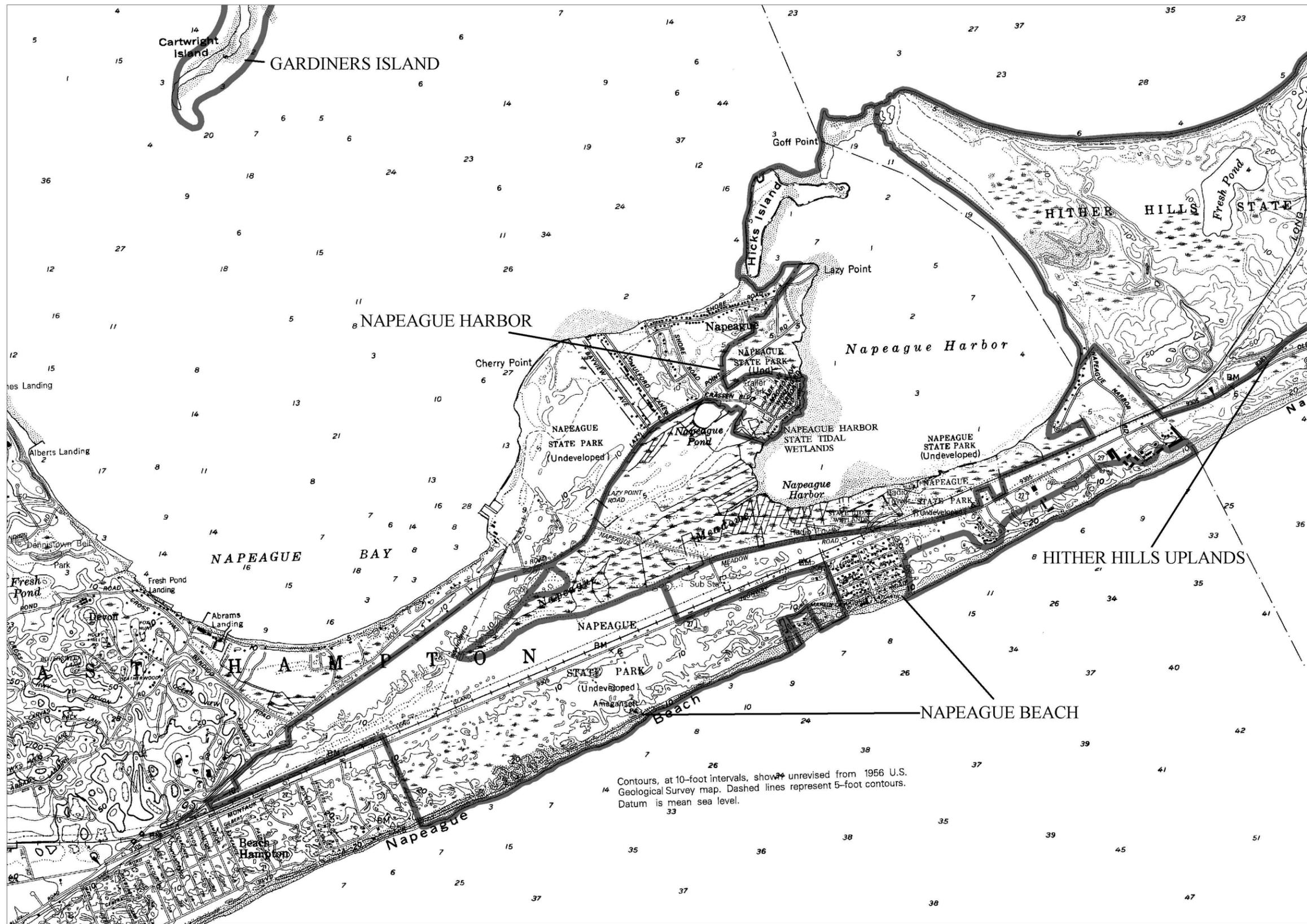
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New York Natural Heritage Program
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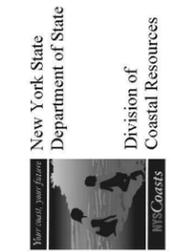
Office of Ecology
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Significant Coastal Fish and Wildlife Habitats

- Napeague Beach
- Napeague Harbor
- Gardiners Island (In part)
- Hither Hills Uplands (In part)



Contours, at 10-foot intervals, shown unrevised from 1956 U.S. Geological Survey map. Dashed lines represent 5-foot contours. Datum is mean sea level.