

COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

Name of Area: **Mashomack Preserve - Shelter Island**
Designated: **March 15, 1987**
Date Revised: **May 15, 2002**
County: **Suffolk**
Town(s): **Shelter Island**
7½' Quadrangle(s): **Greenport, 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: Undeveloped marine coastal ecosystem is rare in New York State. 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: Osprey (SC) nesting and feeding. Piping plover (E,T-Fed) nesting. Occasional least tern (T) nesting. Calculation: $36 + (25/2) + (16/4) =$ 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: Recreational and educational uses important to residents of Long Island. 25

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: The second largest concentration of nesting osprey in the State of New York. 16

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] = 157.5

Significance = HI x R = 189.0

NEW YORK STATE
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT
NARRATIVE

MASHOMACK PRESERVE

LOCATION AND DESCRIPTION OF HABITAT:

Mashomack Preserve is located between the north and south forks of Long Island in the Town of Shelter Island, Suffolk County (7.5' Quadrangle: Greenport, NY). The area consists of approximately 2,200 acres of land owned by the Nature Conservancy and some adjacent lands located on the southeastern peninsula of Shelter Island. The New York State Department of Environmental Conservation owns approximately 40 acres of this area on the north side of Congdon's Creek. The habitat includes eelgrass beds, coastal marshes, freshwater wetlands, ponds, beaches, dunes, bluffs, and a large relatively undisturbed forest, including excellent examples of coastal oak-beech, coastal oak-hickory, and maritime post oak communities.

FISH AND WILDLIFE VALUES:

Mashomack Preserve is a rare and outstanding example of undeveloped marine coastal ecosystems in New York. Large tracts of undisturbed habitat such as the Mashomack Preserve are essential for the survival of many species of wildlife. The large forested area (predominantly oak, hickory, and beech), approximately 1,200 acres, is significant for its size alone. Such areas of mature deciduous forest are rare on Long Island. The extensive tidal, freshwater, and brackish wetlands, as well as the high quality upland habitats, support many species of wildlife. The shallows to the east of Mashomack support important eelgrass beds.

Mashomack Preserve contains the second largest concentration of nesting osprey (SC) in New York State. In 1983, 17 pairs of osprey were reported nesting in the area. There is potential for a larger population to exist here if the area remains relatively undisturbed. Piping plover (E, T-Fed) nested at Mashomack Point and Gibson's Beach sporadically between 1985 and 1992; from 1992-1996 this species has been documented each breeding season, ranging in concentration from 2-5 pairs. Gibson's Beach occasionally provides nesting grounds for least tern (T) and is an important feeding area for nearby colonies of glossy ibis, herons and egrets. Diamondback terrapin utilize the tidal areas and lay eggs in the sandy creek banks throughout the area. This area may provide important breeding habitat for horseshoe crab, but additional documentation is required.

The tidal marsh area, and adjacent open waters, are used extensively by wintering waterfowl. An average concentration of 98 mallard, 1090 American black duck, 128 merganser, and smaller numbers of goldeneye, bufflehead, Canada goose, and old squaw occur annually. Other species that have occasionally been observed by winter aerial surveys include American widgeon, scoters, and scaup. Nearshore bay waters also support large numbers of wintering common loon (SC) as well as a few harbor seals. The freshwater wetlands provide habitat for nesting wood ducks, and the first

record of hooded merganser nesting on Long Island came from the Mashomack Preserve in 1980. Two freshwater ponds at Mashomack support populations of the rare damselfly Rombur's forktail (*Ischnura ramburii*). The large tracts of forest land on the Mashomack Preserve are necessary for the continued nesting of such species as great-horned owl, red-tailed hawk, and wild turkey.

One of the largest deer herds on eastern Long Island also exists here. This deer population has been carefully managed by the Department of Environmental Conservation, including an annual controlled deer hunt for over 12 years.

The New York Natural Heritage Program has documented occurrences of white milkweed (T), seabeach knotweed (*Polygonum glaucum*), dwarf glasswort (*Salicornia bigelovii*), seaside plantain (*Plantago maritima* ssp *juncooides*), whip nutrush, slender beadgrass, marsh fimbry (*Fimbristylis castanea*, T), and Oake's evening primrose at Mashomack.

Mashomack Preserve and Turtle Cove on Congdon's Creek are owned and operated by the Nature Conservancy and receive a great deal of controlled human use by residents of Long Island. Educational and recreational activities include nature study, birdwatching and big game hunting. There is an important historical and archeological site at Sungic Point. The Mashomack marshes also help maintain an important local fishing and shellfishing industry. Congdon's Creek is an important staging area for commercial and recreational fishing and shellfishing.

IMPACT ASSESSMENT:

Any activity that significantly disturbs or destroys a portion of the habitat, including human use, could cause the loss of some species, reducing the fish and wildlife resource value of the Mashomack Preserve. Such disturbances could include activities that degrade the water quality in or around Mashomack Preserve, adversely affecting 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 boat wastes). Alteration of tidal patterns in or around the Preserve would have major impacts on the fish and wildlife communities present.

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.

Elimination or degradation of salt marsh and intertidal areas, through loss of tidal connection, ditching, excavation, or filling, would directly impact the valuable habitat in this area. Construction of shoreline structures, such as docks, piers, bulkheads, or revetments, especially in areas such as Mashomack Preserve that are not previously disturbed by development, may result in the loss of productive areas supporting fish and wildlife resources. 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.

Nesting shorebirds inhabiting Mashomack Preserve are highly vulnerable to disturbance by humans, especially during the nesting and fledging period (March 15 through August 15). Diamondback terrapin inhabiting the beach are vulnerable to disturbance by humans from April 1 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.

The various habitats of the Mashomack Preserve, due to their undisturbed condition and large size, may be appropriate for use as reference habitats for habitat restoration projects and research in the Peconics.

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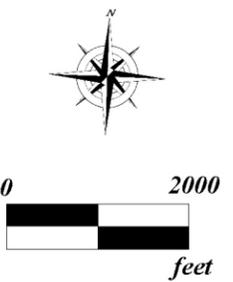
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Significant Coastal Fish and Wildlife Habitats

- Cedar Point/Hedges Bank Shallows (In part)
- Cedar Point Peninsula (In part)
- Sag Harbor Bay & Northwest Harbor (In part)
- Shelter Island Eastern Shallows (In part)

- Mashomack Preserve-Shelter Island
- Shell Beach