

COASTAL FISH & WILDLIFE HABITAT RATING FORM

Name of Area: **Mill Neck Creek Wetlands**

Designated: **March 15, 1987**

County: **Nassau**

Town(s): **Oyster Bay**

7½' Quadrangle(s): **Bayville, NY-Conn.**

Score Criterion

- 16** Ecosystem Rarity (ER)
One of the largest undeveloped wetland ecosystems on the north shore of Long Island; rare in ecological subregion.
- 0** Species Vulnerability (SV)
Bald eagle (E) and osprey (T) frequently sighted in the area, but extent of use is not adequately documented.
- 18** Human Use (HU)
Area contributes biologically to commercial oyster production in Oyster Bay, of statewide significance; birdwatching area of county-level significance. Additive division: $16 + 4/2 = 18$.
- 6** Population Level (PL)
One of the top 10 waterfowl wintering areas on the north shore of Long Island, significant between county and regional level. Geometric mean: $(4 \times 9)^{1/2} = 6$.
- 1.2** Replaceability (R)
-

SIGNIFICANCE VALUE = [(ER + SV + HU + PL) X R]
= **48.0**

SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT

PROJECT DESCRIPTION

MILL NECK CREEK WETLANDS

LOCATION AND DESCRIPTION OF HABITAT:

Mill Neck Creek is a narrow coastal bay which empties into the western side of Oyster Bay Harbor, between Oak Neck and Mill Neck, in the Town of Oyster Bay, Nassau County (7.5' Quadrangle: Bayville, N.Y.-Conn.). The fish and wildlife habitat consists of two wetland areas adjoining Mill Neck Creek, most of which is included in the Oyster Bay National Wildlife Refuge. The two areas are: an approximate 120 acre area northwest of Mill Neck Creek, referred to as Oak Neck Creek; and Beaver Lake, which is located south of Mill Neck Creek, and is approximately 60 acres in size. Oak Neck Creek is comprised of relatively undisturbed salt marsh and tidal creeks draining into Mill Neck Creek. Much of Oak Neck Creek is owned as undeveloped county parkland (Mill Neck Preserve), bordered by dense residential development on the north and east sides, and by large estates and undeveloped woodlands toward the west and south. Beaver Lake is a freshwater impoundment, approximately 3 feet deep, which drains into Mill Neck Creek through a weir along Cleft Road. Beaver Lake is privately owned.

FISH AND WILDLIFE VALUES:

The Mill Neck Creek Wetlands are an integral part of the Oyster Bay Harbor ecosystem, which is one of several major embayments on Long Island Sound. Oak Neck Creek is one of the largest undeveloped salt marshes remaining on the north shore of Long Island. Oak Neck Creek and Beaver Lake are important as resting and feeding areas for Oyster Bay Harbor's wintering waterfowl populations. The Mill Neck Creek area supports regionally significant wintering waterfowl concentrations (November - March). Mid-winter aerial surveys of waterfowl abundance for the ten year period 1975-1984 indicate average concentrations of approximately 550 birds in the area each year (1,150 in peak year), including approximately 310 black ducks (650 in peak year), and 100 Canada geese (440 in peak year) along with lesser numbers of mallard, scaup, canvasback, bufflehead, common goldeneye, American wigeon, mute swan, red-breasted merganser, and oldsquaw. Data on waterfowl populations in Beaver Lake for 1982-1984 indicate average concentrations of approximately 220 ducks each year (primarily mallard, black duck, and canvasback). Waterfowl use of Oak Neck Creek and Beaver Lake during winter is influenced in part by the extent of ice cover each year. Concentrations of waterfowl also occur in these areas during spring and fall migrations (October-November, and March-April, respectively). In addition to waterfowl use, many other fish and wildlife species inhabit the Mill Neck Creek Wetlands area. Wintering bald eagles (E) have been reported using these wetlands on several occasions in recent years. This is one of the few areas on Long Island where eagles have been frequently sighted during mid-winter. These wetlands provide suitable nesting habitat for yellow-crowned and black-crowned night herons, green-backed heron, Canada goose, mallard, black duck, gadwall, fish crow, red-winged blackbird, sharp-tailed sparrow, and possibly least bittern (SC). The area is also used for feeding by osprey (T), herons, egrets, shorebirds, and passerines. Oak Neck Creek serves as nursery and feeding habitat (from April-November, generally) for various marine fish species, such as scup, bluefish, Atlantic silverside, menhaden, winter flounder, and blackfish. This wetland area is also important because it contributes organic matter and nutrients to New York State's most significant commercial oyster beds, located in Oyster Bay Harbor.

IMPACT ASSESSMENT:

Any activity that would substantially degrade the water quality in the Mill Neck Creek wetlands would affect the biological productivity of this area. All

species of fish and wildlife would be adversely affected by water pollution, such as chemical contamination (including food chain effects), oil spills, excessive turbidity or sedimentation, and waste disposal. Elimination of open water or wetland areas, through excavation or filling, would result in a direct loss of valuable habitat area. Alteration of tidal patterns in Oak Neck Creek could have major impacts on the fish and wildlife species present. Efforts should be made to maintain high water quality in this area, to protect the Oyster Bay Harbor shellfishery.

KNOWLEDGEABLE CONTACTS:

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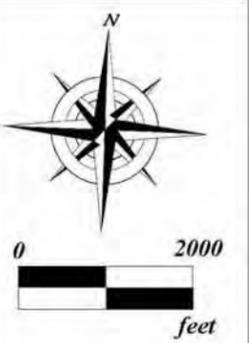
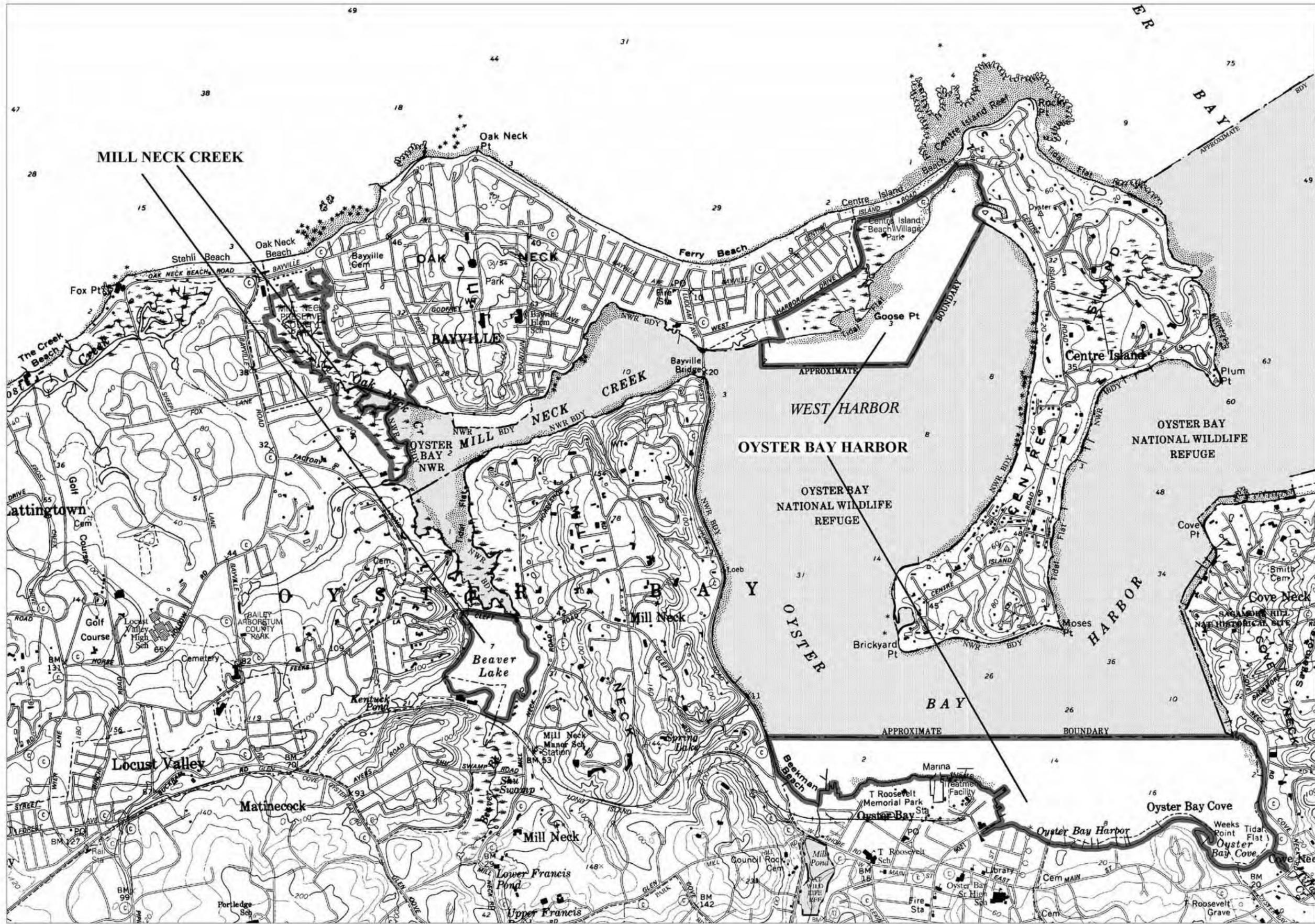
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Significant Coastal Fish and Wildlife Habitats
 [] Oyster Bay National Wildlife Refuge
 [] Mill Neck Creek
 [] Oyster Bay Harbor