

COASTAL FISH & WILDLIFE HABITAT RATING FORM

Name of Area: **Oyster Bay Harbor**

Designated: **March 15, 1987**

County: **Nassau**

Town(s): **Oyster Bay**

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

Score **Criterion**

- 16** Ecosystem Rarity (ER)
One of several major embayments on the north shore of Long Island;
rare in ecological subregion.
- 0** Species Vulnerability (SV)
No endangered, threatened or special concern species reside in the
area.
- 20.5** Human Use (HU)
Commercial oyster farming of statewide significance; recreational
fishery of regional significance. Additive division: $16 + 9/2 = 20.5$.
- 16** Population Level (PL)
Concentrations of American oyster are unusual in New York State.
Also the most important waterfowl wintering area on the north
shore of Long Island, especially for scaup.
- 1.2** Replaceability (R)
Irreplaceable.
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SIGNIFICANCE VALUE = [(ER + SV + HU + PL) X R]
= **63.0**

SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT

PROJECT DESCRIPTION

OYSTER BAY HARBOR

LOCATION AND DESCRIPTION OF HABITAT:

Oyster Bay Harbor is located on the north shore of Long Island, between Mill Neck and Cove Neck, in the Town of Oyster Bay, Nassau County (7.5' Quadrangles: Bayville, N.Y.- Conn.; and Hicksville, N.Y.). The bay is approximately 2500 acres in size. The fish and wildlife habitat consists of the open water and wetland areas in the bay, extending from Bayville Bridge on the west to Plum Point on the east, excluding portions contained in the Oyster Bay National Wildlife Refuge (approximately 1800 acres). Portions of this habitat which are in the National Wildlife refuge were not evaluated. These areas will be evaluated and considered for inclusion in the near future. Most of Oyster Bay Harbor ranges from 6 to 30 feet in depth below mean low water, and has a tidal fluctuation of approximately 7 feet. The bay is bordered by dense residential development and extensive recreational boating facilities, with only a few areas of undeveloped salt marsh remaining.

FISH AND WILDLIFE VALUES:

Oyster Bay Harbor is one of several major embayments on Long Island's north shore. This protected coastal bay is important to fish and wildlife throughout the year. Oyster Bay Harbor is the most important waterfowl wintering area (November - March) on the north shore. Mid-winter aerial surveys of waterfowl abundance for the ten year period 1975-1984 indicate average concentrations of nearly 1,600 birds in the bay each year (6,380 in peak year), including approximately 1,350 scaup (6,230 in peak year), along with lesser numbers of mallard, Canada goose, common goldeneye, bufflehead, oldsquaw, and red-breasted merganser. Waterfowl use of the bay during winter is influenced in part by the extent of ice cover each year. Concentrations of waterfowl also occur in Oyster Bay Harbor during spring and fall migrations (March-April and October-November, respectively).

In addition to waterfowl use, Oyster Bay Harbor is a highly productive area for marine finfish and shellfish. The harbor serves as a nursery and feeding area (from April - November, generally) for striped bass, scup, summer flounder, bluefish, Atlantic silverside, menhaden, winter flounder, and blackfish. As a result of the abundant fisheries resources in the area, and its proximity to the metropolitan New York area, Oyster Bay Harbor receives heavy recreational fishing pressure, of regional significance. Oyster Bay Harbor is also widely renowned as one of the most important oyster producing areas in New York State. Oysters are generally found in waters greater than 6 feet deep, with spawning occurring in early summer. Most of the underwater lands in Oyster Bay Harbor are certified for shellfishing and are leased for commercial harvest (i.e., farming) of this resource.

Some recreational collecting of oysters takes place in the area as well. Fiddler crabs, ribbed mussels, and hard clams are also abundant in the area. The hard clam populations provide a commercial and recreational harvest of county-level significance. Salt marsh areas and tidal flats surrounding Oyster Bay Harbor are important for maintaining the biological productivity of this ecosystem.

IMPACT ASSESSMENT:

Any activity that would substantially degrade the water quality in Oyster Bay Harbor 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, sewage discharges, and waste disposal. It is essential that high water quality be maintained in this area to protect the commercial shellfishery, through control of vessel waste discharges, sewage effluents, and upland runoff. Excavation of new navigation channels should be minimized, and maintenance dredging activities should be scheduled in late fall or winter to minimize potential impacts on most aquatic organisms. Dredge spoils should be deposited in upland containment areas. 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 adult, in some cases) fish concentration, through impingement or entrainment. 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 Oyster Bay Harbor.

KNOWLEDGEABLE CONTACTS:

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