

COASTAL FISH & WILDLIFE HABITAT RATING FORM

Name of Area: **Premium River - Pine Brook Wetlands**
Designated: **November 15, 1987**
County: **Westchester**
Town(s): **Mamaroneck, New Rochelle**
7½' Quadrangle(s) **Mount Vernon, NY**

Score **Criterion**

- 9** Ecosystem Rarity (ER)
 A relatively undeveloped complex of tidal flats, salt marsh, and freshwater wetlands,; unusual in Westchester County.
- 0** Species Vulnerability (SV)
 Possibly important for overwintering by common loon (SC) but further documentation is needed on the extent of use by this species.
- 4** Human Use (HU)
 Environmental Education, research, and informal nature study attract visitors from throughout Westchester County.
- 0** Population Level (PL)
 No unusual concentrations of any fish or wildlife species occur in the area.
- 1.2** Replaceability (R)
 Irreplaceable.

SIGNIFICANCE VALUE = [(ER + SV + HU + PL) X R] = **16**

SIGNIFICANT COASTAL FISH AND WILDLIFE HABITATS PROGRAM A PART OF THE NEW YORK COASTAL MANAGEMENT PROGRAM

BACKGROUND

New York State's Coastal Management Program (CMP) includes a total of 44 policies which are applicable to development and use proposals within or affecting the State's coastal area. Any activity that is subject to review under Federal or State laws, or under applicable local laws contained in an approved local waterfront revitalization program will be judged for its consistency with these policies.

Once a determination is made that the proposed action is subject to consistency review, a specific policy aimed at the protection of fish and wildlife resources of statewide significance applies. The specific policy statement is as follows: "Significant coastal fish and wildlife habitats will be protected, preserved, and, where practical, restored so as to maintain their viability as habitats." The New York State Department of Environmental Conservation (DEC) evaluates the significance of coastal fish and wildlife habitats, and following a recommendation from the DEC, the Department of State designates and maps specific areas. Although designated habitat areas are delineated on the coastal area map, the applicability of this policy does not depend on the specific location of the habitat, but on the determination that the proposed action is subject to consistency review.

Significant coastal fish and wildlife habitats are evaluated, designated and mapped under the authority of the Coastal Management Program's enabling legislation, the Waterfront Revitalization and Coastal Resources Act (Executive Law of New York, Article 42). These designations are subsequently incorporated in the Coastal Management Program under authority provided by the Federal Coastal Zone Management Act.

This narrative constitutes a record of the basis for this significant coastal fish and wildlife habitat's designation and provides specific information regarding the fish and wildlife resources that depend on this area. General information is also provided to assist in evaluating impacts of proposed activities on parameters which are essential to the habitat's values. This information is to be used in conjunction with the habitat impairment test found in the impact assessment section to determine whether the proposed activities are consistent with this policy.

DESIGNATED HABITAT: PREMIUM RIVER - PINE BROOK WETLANDS

HABITAT DESCRIPTION:

The Premium River - Pine Brook Wetlands are located on Long Island Sound in the Town of Mamaroneck, the City of New Rochelle and the Village of Larchmont, Westchester County (7.5' Quadrangle: Mount Vernon, N.Y.). The fish and wildlife habitat is an approximately 65 acre area including Pine Brook south of the Boston Post Road, the Premium River, Premium Mill Pond, the northeast portion of Echo Bay, Pryer Manor Marsh, a former wetland between Dillon Road and Emerson Avenue, salt marsh areas adjacent to the river and creek and small portions of adjacent meadow. The land area bordering the wetlands complex is predominantly moderate density residential and commercial. Several town and village owned parklands including the Premium River Conservation Area, Woodbine Park, Kane Park, and Lorenzen Park are part of the habitat area.

The portion of the habitat area within Mamaroneck and Larchmont was designated as a Critical Environmental Area under the State Environmental Quality Review Act.

FISH & WILDLIFE VALUES:

The Premium River - Pine Brook Wetlands area is a diverse and relatively undeveloped complex of tidal river, tidal flats, shallows, salt marsh and freshwater wetlands which is unusual in Westchester County. Although adjacent and upstream developments and water pollution have degraded this area, the wetland complex remains undeveloped and the range of natural communities in this area support a diversity of fish and wildlife species. Local efforts are underway to preserve, maintain and restore the wetlands. As an initial step, the Department of State has funded the development of a wetland restoration and management plan for the Town of Mamaroneck and the Village of Larchmont.

The productive salt marshes, tidal flats and shallows serve as nursery and feeding areas for a variety of finfish species including alewife, striped bass, blackfish, bluefish, cod, eel, winter flounder, summer flounder, mackerel, menhaden, porgy, weakfish, silversides and killifish. Shellfish found in the area include hard clam, soft clam, blue mussel, American oyster and bay scallop. Although the area was once used for planting and harvesting oysters, the entire area is now closed to shellfishing due to degraded water quality (high coliform levels). Recreational fishing remains locally important.

A variety of coastal wildlife species occur in and around the Premium River - Pine Brook Wetlands. Nesting bird species include black-crowned night heron, ring-necked pheasant, mallard, Canada goose, mute swan and killdeer. Many species of waterfowl, shorebirds, marsh birds and passerine species feed in the area as residents during the summer and also during spring and fall migrations. Large concentrations of black duck occur during migrations and in recent years, osprey (T) have been observed migrating through the area. Overwintering species include common loon (SC), American coot, greater scaup, lesser scaup, northern shoveler, mallard, common goldeneye, canvasback, common merganser, hooded merganser and red-breasted merganser. The use of this area by waterfowl in winter is influenced by the extent of ice cover on Premium Mill Pond. Waterfowl hunting is not allowed except for some areas offshore of Premium Point. Harbor seals are occasional visitors to the area.

The combination of this area's diverse natural communities and wildlife and its proximity to New York City and the densely populated region of Westchester County makes the Premium River - Pine Brook Wetlands area significant for informal nature study, birding, photography, environmental education and research. The L.I.F.E. Center naturalists as well as other Westchester citizens groups conduct frequent nature walks in this area for school groups and adults. Several high schools and universities use this area as an ecological laboratory. Several local groups including the L.I.F.E. Center, the Premium River and Pine Brook Preservation Association, and the Larchmont/Mamaroneck Coastal Zone Management Commission are dedicated to preserving and restoring this area.

IMPACT ASSESSMENT:

A **habitat impairment test** must be met for any activity that is subject to consistency review under federal and State laws, or under applicable local laws contained in an approved local waterfront revitalization program. If the proposed action is subject to consistency review, then the habitat protection policy applies, whether the proposed action is to occur within or outside the designated area.

The specific **habitat impairment test** that must be met is as follows.

In order to protect and preserve a significant habitat, land and water uses or development shall not be undertaken if such actions would:

- ! destroy the habitat; or,
- ! significantly impair the viability of a habitat.

Habitat destruction is defined as the loss of fish or wildlife use through direct physical alteration, disturbance, or pollution of a designated area or through the indirect effects of these actions on a designated area. Habitat destruction may be indicated by changes in vegetation, substrate, or hydrology, or increases in runoff, erosion, sedimentation, or pollutants.

Significant impairment is defined as reduction in vital resources (e.g., food, shelter, living space) or change in environmental conditions (e.g., temperature, substrate, salinity) beyond the tolerance range of an organism. Indicators of a significantly impaired habitat focus on ecological alterations and may include but are not limited to reduced carrying capacity, changes in community structure (food chain relationships, species diversity), reduced productivity and/or increased incidence of disease and mortality.

The *tolerance range* of an organism is not defined as the physiological range of conditions beyond which a species will not survive at all, but as the ecological range of conditions that supports the species population or has the potential to support a restored population, where practical. Either the loss of individuals through an increase in emigration or an increase in death rate indicates that the tolerance range of an organism has been exceeded. An abrupt increase in death rate may occur as an environmental factor falls beyond a tolerance limit (a range has both upper and lower limits). Many environmental factors, however, do not have a sharply defined tolerance limit, but produce increasing emigration or death rates with increasing departure from conditions that are optimal for the species.

The range of parameters which should be considered in applying the habitat impairment test include but are not limited to the following:

1. physical parameters such as living space, circulation, flushing rates, tidal amplitude, turbidity, water temperature, depth (including loss of littoral zone), morphology, substrate type, vegetation, structure, erosion and sedimentation rates;
2. biological parameters such as community structure, food chain relationships, species diversity, predator/prey relationships, population size, mortality rates, reproductive rates, meristic features, behavioral patterns and migratory patterns; and,
3. chemical parameters such as dissolved oxygen, carbon dioxide, acidity, dissolved solids, nutrients, organics, salinity, and pollutants (heavy metals, toxics and hazardous materials).

Although not comprehensive, examples of generic activities and impacts which could destroy or significantly impair the habitat are listed below to assist in applying the habitat impairment test to a proposed activity.

Any activity that would further degrade the water quality in Premium, River, Pine Brook, Premium Mill Pond and associated wetlands would impair the biological productivity of this area. Species of fish and wildlife may be affected by water pollution such as chemical contamination (including food chain effects), oil spills, excessive turbidity or sedimentation, waste disposal, and sewage discharges. Efforts should be made to improve water quality in the area by controlling runoff and waste discharge from adjacent and upstream commercial and residential areas and by improving tidal flushing. Habitat enhancement and restoration efforts are needed in several of the smaller, degraded wetlands in this area. Elimination of freshwater wetlands, salt marsh and intertidal areas through excavation or filling, would result in a direct loss of valuable habitat area. Natural plant communities bordering the wetlands should be maintained to provide cover for wildlife, erosion control, and buffer zones.

Opportunities for compatible public uses of the area (nature study, environmental education) should be maintained or enhanced to utilize this valuable fish and wildlife resource.

KNOWLEDGEABLE CONTACTS:

Tom Hart
NYS Department of State
Division of Coastal Resources and
Waterfront Revitalization
162 Washington Avenue
Albany, NY 12231
Phone: (518) 474-6000

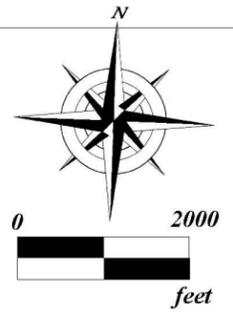
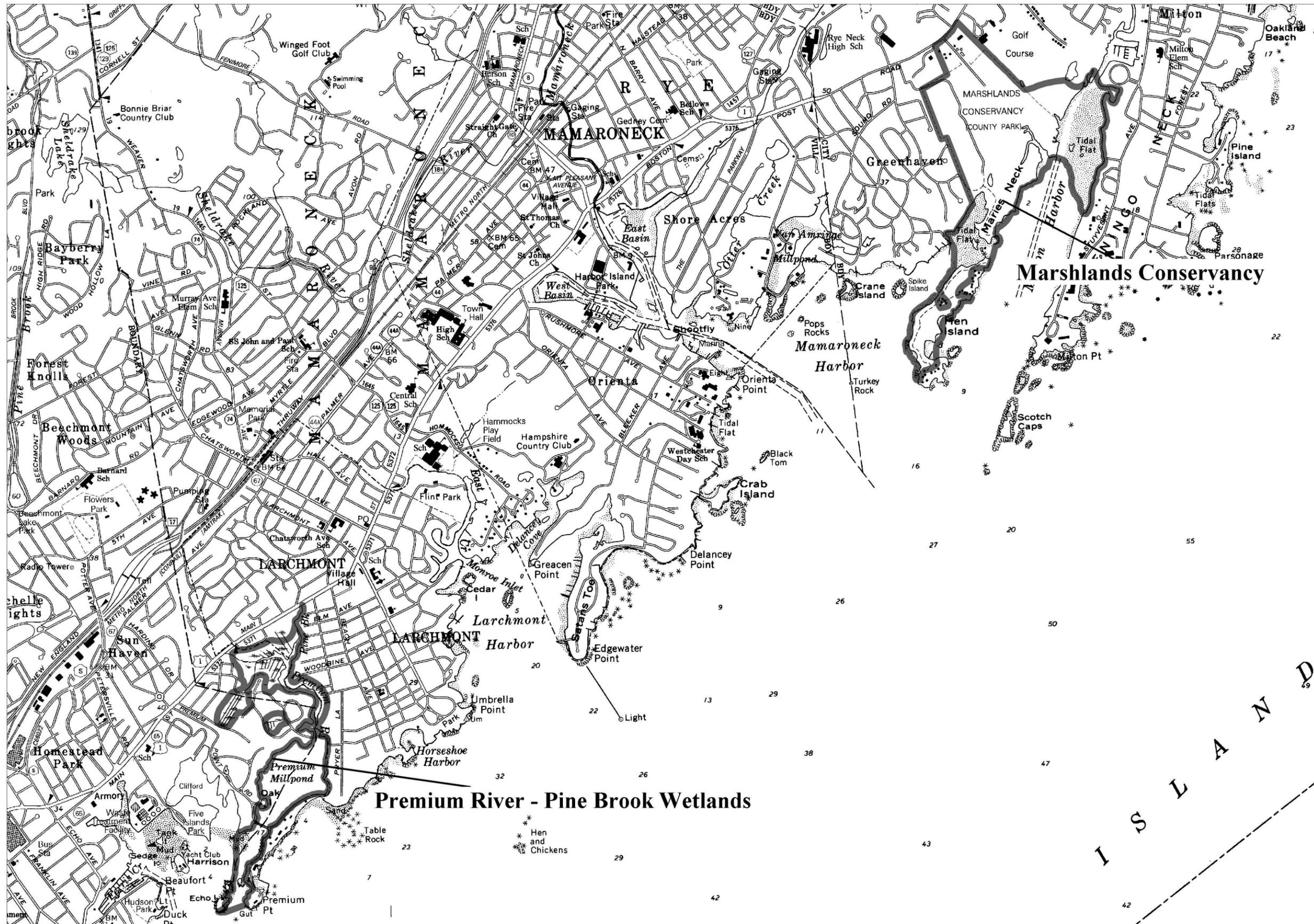
Glenn Cole, Wildlife Manager
or Jack Isaacs, Environmental Protection Biologist
NYS DEC - Region 3
21 South Putt Corners Road
New Paltz, NY 12561
Phone: (914) 255-5453

John Poole, Marine Resources Specialist IV
or Pieter VanVolkenburgh, Chief - Bureau of Shellfisheries
NYS DEC - Region 1
State University of New York, Building 40
Stony Brook, NY 11790
Phone: (516) 751-7900

Alison Beall, Curator
Marshlands Conservancy
Westchester County Department of Parks,
Recreation, and Conservation
Route 1
Rye, NY 105680
Phone: (914) 835-4466

Town of Mamaroneck/Village of Larchmont
Coastal Zone Management Commission
750 West Boston Post Road
Mamaronack, NY 10543
Phone: (914) 381-6133

NYSDEC Information Services
700 Troy-Schenectady Road
Latham, NY 12110
Phone: (518)783-3932



Significant Coastal Fish and Wildlife Habitats

Marshlands Conservancy
Premium River - Pine Brook Wetlands

