
COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

Name of Area: **Fishers Island Beaches, Pine Islands and Shallows**
County: **Suffolk**
Town(s): **Southold**
7½' Quadrangle(s): **Mystic, CT-NY-RI**
Originally designated: **March 15, 1987**
Modified: **October 15, 2005**

Assessment Criteria

Score

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: A combination of marine shallows with significant eelgrass populations, small segments of undeveloped sand and pebble beach, and undisturbed rock and salt marsh islands; unusual in the coastal lowlands subzone.

16

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. (E= Endangered, T = Threatened, SC = Special concern)

SV assessment: Piping plover (E, T-Fed) and least tern (T) nesting. Osprey (SC) feeding. Historic nesting by roseate tern (E) and common tern (T) but not in recent years. Additive Division: $36 + 25/2 + 16/4 = 52.5$

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: No significant fish or wildlife related human uses of the area.

0

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 Pine Islands area contains one of the largest nesting concentrations of double-crested cormorants in New York State, and is an important area for wintering harbor seals in the state.

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] = 84.5

Significance = HI x R = 101.4

NEW YORK STATE
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT
NARRATIVE

FISHERS ISLAND BEACHES, PINE ISLANDS, AND SHALLOWS

LOCATION AND DESCRIPTION OF HABITAT:

The Fishers Island Beaches, Pine Islands, and Shallows habitat incorporates much of the shallows area along the north shore of Fishers Island on Fishers Island Sound up to 14 feet deep at mean low water, including two beach areas and a small group of rocky islands. A beach area on the island's south central shoreline on Block Island Sound is also included. The approximately 786 acre habitat lies within the Town of Southold, Suffolk County (7.5' Quadrangle: Mystic, CT-NY-RI). The shallows area provides important habitat for eelgrass (*Zostera marina*) in what is the most extensive series of beds of this submerged aquatic vegetation along the New York State shore of Long Island Sound. The maximum depth at which eelgrass was identified during the 2002 United States Fish and Wildlife Service Eelgrass Survey along the north shore of Fishers Island was 14 feet in depth at mean low water.

The north shore portion of the habitat commences at Stony Beach on Hay Harbor near the western end of the island and extends easterly to East Point. The Middle Farms Beach area (a.k.a. Beach Pond Fishers Island) is an approximately 17 acre sand, gravel and cobble beach interspersed with shrubs adjoining Island Pond and Beach Pond. There is some human disturbance at the western end of the beach. Island Pond is currently being leased for oyster aquaculture. The Mud Pond Beach (a.k.a. East End Fishers Island) area is approximately 8 acres in size, consisting of beach and rocky strand with a protective barrier of dense shrubs between the beach area and Mud Pond and further on, between the beach and golf course. The western part of this area has been posted to protect beach nesting shorebirds. The area is mostly under private ownership and is partly abutted by the golf course of the Fishers Island Club. There is some recreational disturbance of the beach habitat from boaters, picnickers, golfers and occasionally from four-wheel drive vehicles. The third area, Hay Harbor Spit (a.k.a. Stony Beach), is an approximately ten-acre spit of sand, gravel, and pebbles dividing Hay Harbor from Fishers Island Sound at the far western end of the island. There is very little human disturbance here, due to inaccessibility. The Pine Islands are located along the north shore of Fishers Island, approximately one and one-half miles from the eastern end of the island. These small islands (each less than three acres in size) consist almost entirely of exposed rock with small clumps of trees and salt marsh. The Pine Islands are currently undeveloped and privately owned.

Several rare plant species have been documented by the New York Natural Heritage Program in the Stony Beach area, including saltmarsh aster (*Aster subulatus*), large calyx goosefoot (*Chenopodium berlandieri* var. *macrocalycium*), and fireweed (*Erechtites hieraciifolia* var. *megalocarpa*).

FISH AND WILDLIFE VALUES:

The Fishers Island Beaches, Pine Islands, and Shallows habitat is an important nesting area for a variety of shorebirds. An estimated annual average of 11 pairs of nesting least tern (T) were observed along the habitats beaches from 1993 to 2001, with a peak of 26 pairs in 1993. Small numbers of common terns (T) nested at Stony Beach in the early 1980s, but they have been absent since 1985. One pair of nesting common terns (T) was documented at Beach Pond on Fishers Island in 1999. Roseate terns (E) were observed at Mud Pond Beach in 1984 but nesting was not documented. Piping plover (E, T-Fed) also nested historically within the habitat area.

In addition to colonial waterbirds, there are double-crested cormorant, herring gull, and greater black-backed gull rookeries on the rocks offshore of all three of these beach areas; most predominantly near Hay Harbor. Data from 1995, 1998, and 2001 indicate an annual average of 475 nesting pairs of double-crested cormorants within the habitat area. This represents one of the largest nesting concentrations of this species in New York State. For these same years, an average of 42 nesting pairs of herring gull, and 31 nesting pairs of great black-backed gull were observed. The gulls and cormorants are thought to be the major deterrent to nesting of terns and plovers on these beaches. Other species nesting within the habitat include American oystercatcher and black skimmer (SC). There are three active osprey (SC) nests on poles adjacent to Middle Farms Beach and one active osprey (SC) nest adjacent to Mud Pond Beach. Other bird species using these beach areas include great blue heron, little blue heron, green-backed heron, black-crowned night heron, great egret, snowy egret, mallard, American black duck, gadwall, green-winged teal, wood duck, common goldeneye, red-breasted merganser, spotted sandpiper, solitary sandpiper, greater yellowlegs, lesser yellowlegs, belted kingfisher, eastern kingbird, tree swallow, barn swallow, and brown thrasher. No significant human activities are associated with the fish and wildlife resources on these three beaches.

In addition to significant bird concentrations, a concentration of harbor seals has been regularly documented at and in the vicinity of the Pine Islands during the winter months and early spring (December 1 - April 1). The exposed rocks in this area provide an important haulout area, which seals use for resting and sunning. This location serves as an activity center for seals feeding in the Fishers Island vicinity, and is part of a larger harbor seal use area which includes Gardiners Island and Orient Point. There are no significant human use activities associated with the wildlife resources of Fishers Island Beaches, Pine Islands, and Shallows.

The 2002 U.S. Fish & Wildlife Service eelgrass (*Zostera marina*) survey for Eastern Long Island Sound, Connecticut, and New York has documented moderate to heavy densities of this submerged aquatic species within much of the marine shallows areas along the north shore of Fishers Island. Eelgrass beds range at depths from 4.5 to 14 feet at mean low water; about 194 acres of beds have been documented and mapped. Eelgrass meadows provide critical habitat for a great diversity of aquatic species, including numerous finfish, shellfish, and crustacean species. These eelgrass meadows represent the only substantive populations of this species along the New York State shoreline portion of Long Island Sound. Historically, eelgrass beds were documented along the south shore of Fishers Island as well as within some of island's coves and harbors. According to the survey results, these sites no longer support eelgrass beds.

IMPACT ASSESSMENT:

Any activity that would substantially degrade the water quality in the Fishers Island Beaches, Pine Islands, and Shallows habitat would adversely affect 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 or sedimentation, non-point source run-off, and waste disposal (including vessel wastes). Specifically, activities which could adversely impact the water quality of the ponds and coves adjacent to the beaches would likely have detrimental effects on the suitability of the area for feeding and nesting. Efforts should be made to improve water quality, including reduction or elimination of discharges from vessels and upland sources. Vegetated upland buffer zones should be protected or established to reduce non-point source pollution and sedimentation from upland sources.

Alteration of tidal patterns in the Fishers Island Beaches, Pine Islands, and Shallows habitat could have negative impacts on the fish and wildlife communities present. No new navigation channels should be excavated in the area. Dredging to maintain existing boat channels should be scheduled between September 15 and December 15 to minimize potential impacts on aquatic organisms, and to allow for upland placement of dredged material when wildlife populations are least sensitive to disturbance. Dredged material placement 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 may result in the loss of productive areas which support the fish and wildlife resources of the Fishers Island Beaches, Pine Islands, and Shallows habitat. Elimination of salt marsh and intertidal areas, through loss of tidal connection, ditching, excavation, or filling, would result in a direct loss of valuable habitat area. Alternative strategies of the protection of shoreline property should be examined, including innovative, vegetation-based approaches.

Unrestricted use of motorized vessels including personal watercraft in the protected, shallow waters of this habitat 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 the area's shallow waters and vegetated wetlands.

Eelgrass beds are particularly sensitive to alterations in water quality parameters including temperature, salinity, light penetration, organic matter concentration, and the presence of pollutants. Docks may be detrimental to eelgrass beds because of shading, and review of any proposed new docks in this habitat area should be conducted with potential impacts to eelgrass beds fully considered. Restoration opportunities for eelgrass may exist if water quality parameters are appropriate.

Any activity that significantly disturbs or destroys a portion of the habitat, including human use, would likely cause a reduction in the fish and wildlife resource value of the Fisher Island Pines, Pine Islands, and Shallows habitat. Specifically, if the privately owned islands of the Pine Islands were to be developed there would be a major impact on that area's fish and wildlife values; town, state

or federal governments should consider acquisition of the Pine Islands if the opportunity arises. Any permanent alteration or human disturbance of the Pine Islands area would adversely affect the ecological integrity of the habitat. Disturbance of the harbor seal haulout area, especially from December 1 through May 15, or obstruction of seal migrations, would adversely affect this species. Significant underwater noise, from dredging or other activities, could also preclude marine species from using the area.

Nesting shorebirds inhabiting the Fishers Island Beaches, Pine Islands, and Shallows habitat are highly vulnerable to disturbance by humans, especially during the nesting and fledging period (March 15 through August 15). Significant pedestrian traffic or recreational use of the area's beaches (e.g., boat and personal watercraft landing, off-road vehicle use, picnicking) could easily eliminate the use of this site as a breeding area and 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. Management activities to reduce the gull population may enhance the suitability of beaches as nesting sites.

HABITAT IMPAIRMENT TEST:

A **habitat impairment test** must be applied to 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** 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 in the impact assessment section to assist in applying the habitat impairment test to a proposed activity.

KNOWLEDGEABLE CONTACTS:

Habitat Unit
NYS Department of State
Division of Coastal Resources
41 State Street
Albany, NY 12231
Phone: (518) 474-6000

NYSDEC—Region 1
State University of New York, Building 40
Stony Brook, NY 11790-2356
Phone: (631) 444-0354

Bureau of Marine Resources
NYSDEC
205 N. Belle Meade Road, Suite 1
East Setauket, NY 11733
Phone: (631) 444-0430

Town of Southold Trustees
Town Hall
53095 Main Road
Southold, NY 11971
Phone: (631) 765-1892

New York Natural Heritage Program
625 Broadway, 5th Floor
Albany, NY 12233-4757
Phone: (518) 402-8935

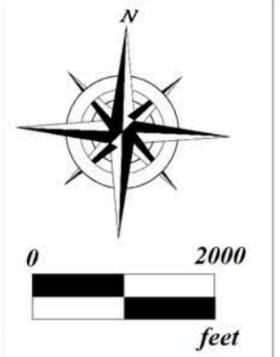
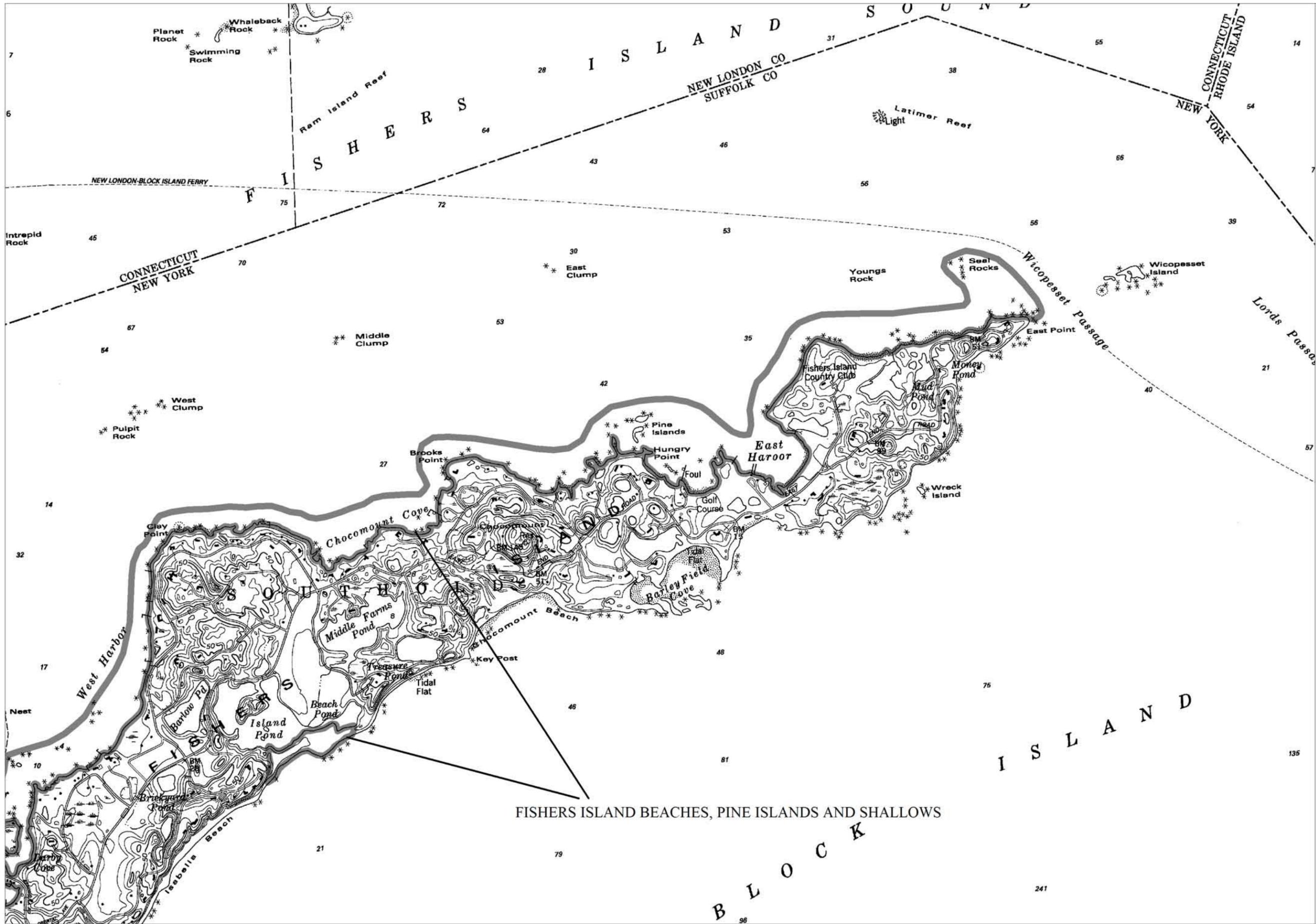
Office of Ecology
Suffolk County Dept. of Health Services
Bureau of Environmental Management
County Center
Riverhead, NY 11901
Phone: (516) 852-2077

Charles Ferguson
Fishers Island, New York 06390
Phone: (516) 788-7479

Edwin H. Horning
The Henry L. Ferguson Museum
Fishers Island, NY 06390
Phone: (516) 788-7293

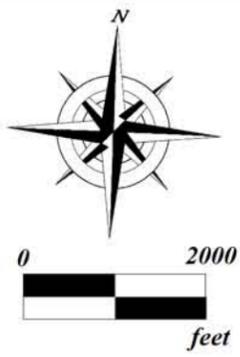
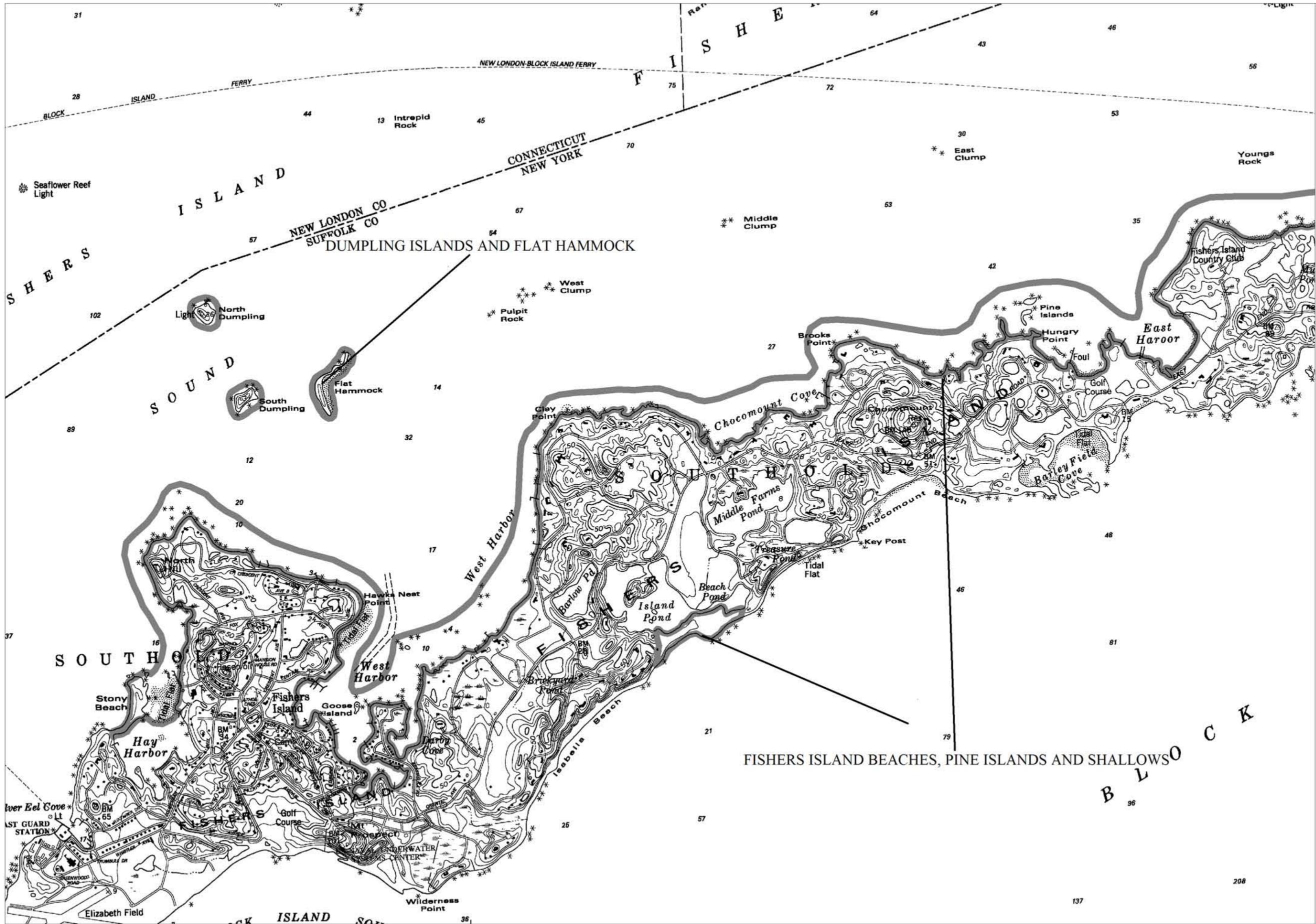
Fishers Island Conservancy
Fishers Island, NY 06390
Phone: (516) 788-7437 (summer)
P.O. Box 132
Green Village, NJ 07935
Phone: (201) 635-5470 (winter)

Town of Southold
Planning Department
Town Hall
53095 Main Road
Southold, NY 11971
Phone: (631) 765-1938



Significant Coastal Fish and Wildlife Habitats

Fishers Island Beaches, Pine Islands and Shallows (In Part)
Part 2 of 2



Significant Coastal Fish and Wildlife Habitats

Dumpling Islands and Flat Hammock
 Fishers Island Beaches,
 Pine Islands and Shallows (In Part)
 Part 1 of 2

New York State
 Department of State
 Division of
 Coastal Resources

