COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

Name of Area:	**Dumpling Islands and Flat Hammock**
County:	**Suffolk**
Town(s):	**Southold**
7½' Quadrangle(s):	**New London, CT-NY**
Designated:	**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: Small, undisturbed islands in Long Island Sound; unusual in Suffolk County.	9
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: No endangered, threatened or special concern species reside in the area.	0
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: Significant concentration of nesting colonial waterbirds, including great egret, herring gull, and double-crested cormorant, unusual in the coastal lowlands area of New York State.	9
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.	1.2
R assessment: Irreplaceable.	

Habitat Index = [ER + SV + HU + PL] = 18 **Significance = HI x R =21.6**

NEW YORK STATE
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT
NARRATIVE

Dumpling Islands and Flat Hammock

LOCATION AND DESCRIPTION OF HABITAT:

The Dumpling Islands and Flat Hammock cluster of islands located approximately 3/4 mile north of Fisher Island's West Harbor, in the Town of Southold, Suffolk County (7.5' Quadrangle: New London, CT-NY). The fish and wildlife habitat is a cluster of three small islands, totaling approximately 30 acres. North and South Dumpling Islands are rocky, with sparse vegetation; Flat Hammock is a low, sparsely vegetated sand island. The three islands are privately owned; South Dumpling Island is owned by the Audubon Society and managed as a bird sanctuary. Angelica (*Angelica lucida)*, a state-endangered plant species, has been documented on South Dumpling Island.

FISH AND WILDLIFE VALUES:

The Dumpling Islands and Flat Hammock comprise a relatively small, but valuable, coastal habitat type that provides ideal conditions for nesting colonial waterbirds. Isolation from predators and human disturbance (a single residence is located on North Dumpling Island) may be one of the most important components of the Dumpling Islands and Flat Hammock habitat, distinguishing this area from many other islands in Suffolk County.

South Dumpling Island serves as an important nesting site for a variety of gull and colonial wading bird species. Flat Hammock and North Dumpling Island have been surveyed irregularly, and adequate documentation regarding their use is unavailable. Long Island Colonial Waterbird Surveys for South Dumpling Island for 1995, 1998, and 2001 estimate annual averages of 48 nesting pairs of great egret (100 in peak year), 146 nesting pairs of herring gull (300 in peak year), 60 nesting pairs of great black-backed gull (100 in peak year), with lesser numbers of glossy ibis, black-crowned night heron, little blue heron, tri-colored heron, and snowy egret. Approximately 100 pairs of double-crested cormorant nested on South Dumpling Island in 2001, but no other documentation is available. Flat Hammock, a narrow, sinuous island of unconsolidated coarse waterborne materials, is an important nesting area for great black-backed gull, with regular nesting noted since 1992. Data available for 1995 and 2001 indicate an annual average of 73 pairs of great black-backed gulls nesting on Flat Hammock. American oystercatcher, although in lesser numbers, have also been reported nesting on Flat Hammock.

IMPACT ASSESSMENT:

Any activity that would disturb or eliminate marsh, natural beach, and duneland plant communities would result in a loss of valuable habitat for a number of important wildlife species. Elimination and fragmentation of the natural dune and wetland communities, through excavation, filling, or other land developments would adversely affect concentrations of wildlife.

Nesting shorebird species inhabiting the Dumpling Islands and Flat Hammock are highly vulnerable to disturbance by humans, especially during the nesting and fledging period (April 15 through August 15). Significant pedestrian traffic or recreational use of the beach (*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. Recreational activities 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 the nesting bird species.

Any activity that would substantially degrade the water quality near the shores of the Dumpling Island or Flat Hammock shores 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, and waste disposal (including vessel wastes) would adversely affect all fish and wildlife that rely on these waters as a food source, or utilize these waters during a portion of their life-cycle.

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 habitat. Development of the area for residential or recreational use would result in a direct loss of wildlife habitat. 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 habitat wetland values.

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.

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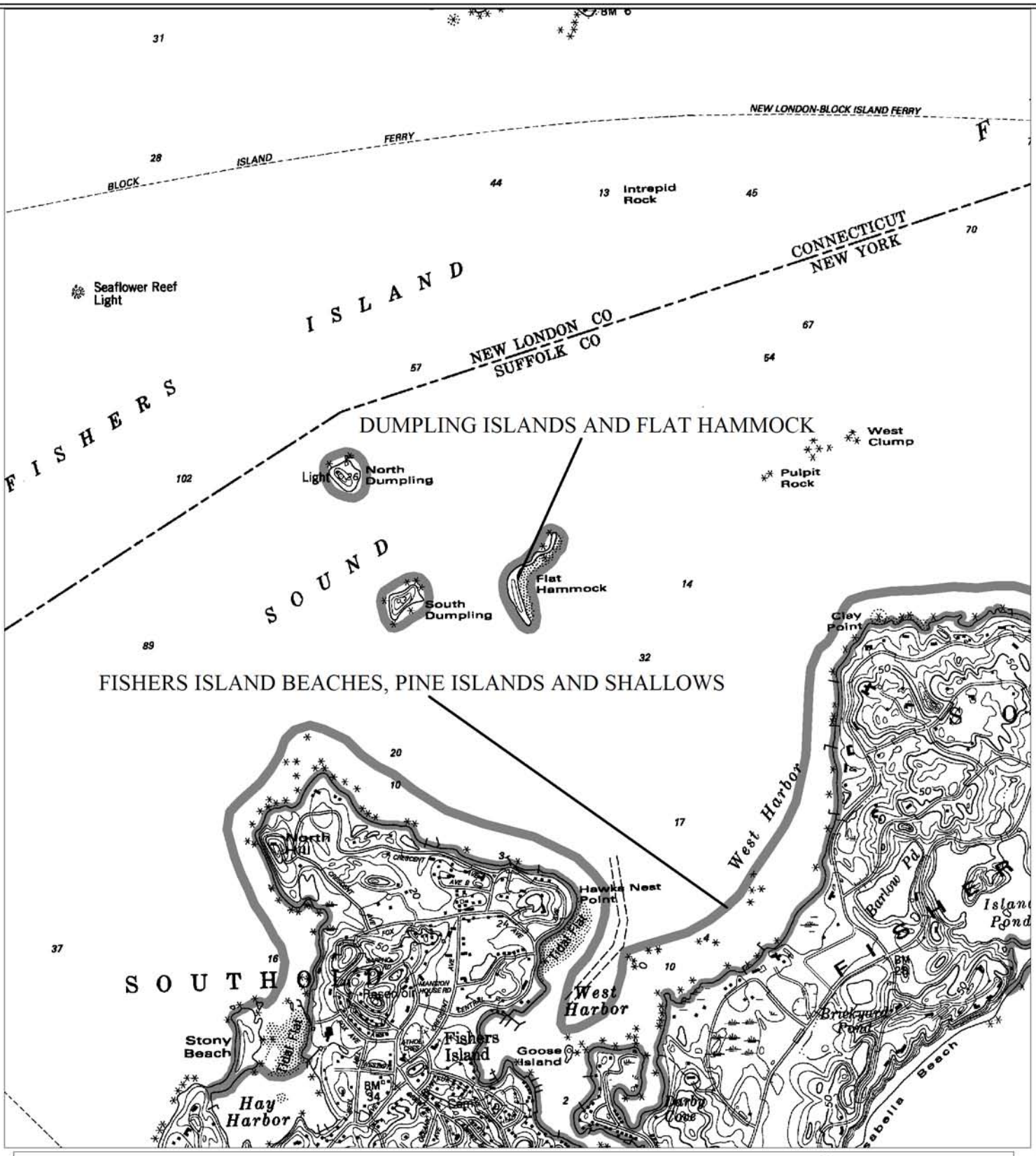

Significant Coastal Fish and Wildlife Habitats

New York State Department of State

Division of Coastal Resources

Dumpling Islands and Flat Hammock
Fishers Island Beaches (In part)

N

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