
COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

Name of Area: **Pipes Cove Creek and Moore's Drain**
Counties: **Suffolk**
Town(s): **Southold**
7½' Quadrangle(s): **Southold, NY, and Greenport, 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: One of the largest saltwater/freshwater wetland complexes on Long Island; rare in the coastal lowlands ecological subregion.

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), least tern (T), and common tern (T) use the Pipes Cove area for foraging and loafing, but extent of use not well documented.

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: Recreational clamming, kayaking, boating and fishing significant at the county level.

4

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: No unusual concentrations of any species of fish or wildlife in the area.

0

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] = 20

Significance = HI x R = 24

NEW YORK STATE
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT
NARRATIVE

Pipes Cove Creek and Moore's Drain

LOCATION AND DESCRIPTION OF HABITAT:

The Pipes Cove Creek and Moores Drain habitat is located on Long Island's North Fork, between Hashamomuck Pond and the Village of Greenport in the Town of Southold and Village of Greenport, Suffolk County (7.5' Quadrangles: Southold, NY, and Greenport, NY). The fish and wildlife habitat is approximately 570 acres in size, and is comprised of several habitat types, including a portion of the shallow waters of Pipes Cove, the tidal creeks and marshes associated with Pipes Creek and Pipes Cove Creek, the freshwater swamps of the Arshmonaque wetlands and the Moore's Drain basin, open grasslands, and upland woods. Moore's Woods, which lies north of State Route 25, is protected land owned by the Village of Greenport. The Arshamanaque Wetlands between Chapel Lane and Albertson Lane is under town or county ownership, and is managed as protected open space lands. The habitat is bounded by Middle Road on the north, Albertson Lane and Kerwin Boulevard on the west, Pipes Cove and State Route 25 on the south, and the residential areas of the Village of Greenport to the east. Water depths in the portion of Pipes Cove and associated creeks within the habitat are less than three feet at mean low water. The habitat complex is bordered by light and dense residential development, woodlands, and scattered commercial sites.

The Arshamanaque Wetlands and Moore's Woods portions of this habitat both provide habitat for swamp cottonwood (*Populus heterophylla*), a species designated as rare in New York State by the New York Natural Heritage Program.

FISH AND WILDLIFE VALUES:

The Pipes Cove Creek and Moore's Drain habitat contains one of the largest tidal/freshwater wetland complexes on Long Island, and is unusual within the coastal lowlands subregion. This habitat area, including its diversity of upland ecological communities, is important to fish and wildlife throughout the year. Suitable nesting habitat for common tern (T) and least tern (T) is available on the maritime beaches along Pipes Cove, but nesting by these species has not been well documented. However, during a survey in 2000, six least terns (T) were observed on the beach, and two common terns (T) were seen feeding in the waters of Pipes Cove. A 1996 record shows that 60 least tern (T) individuals were observed in the vicinity of the beach at Pipes Cove, with no nesting documented.

Pipes Cove is a valuable waterfowl wintering area (November-March) on the north shore, providing shallow water habitat for red-breasted merganser, bufflehead, and American black duck, with smaller concentrations of greater and/or lesser scaup, American widgeon, common goldeneye, and long-tailed duck. Waterfowl use of the bay during winter is influenced in part by the extent of ice cover each year.

The habitat has long been recognized as a critical environmental area. The NYS Department of Environmental Conservation (in partnership with The Nature Conservancy) and the Town of Southold recently acquired approximately 140 acres of tidal, brackish, and freshwater wetlands between the Arshamanaque Wetlands and Pipes Cove. Despite the presence of mosquito ditches and other disturbances, tidal wetlands (and the tidal creeks) within the area of acquisition are of a high quality nature.

Pipes Cove provides important birdwatching, hiking, nature study, environmental interpretation, kayaking, and boating opportunities for the public. Recent acquisitions of lands within the Pipes Creek Cove and Moore's Drain habitat area may contribute to the importance of the area to recreationists.

IMPACT ASSESSMENT:

Any activity that would substantially degrade the water quality in the Pipes Cove Creek and Moore's Drain habitat would adversely affect the biological productivity of this area. Degradation of water quality in the creek, or to its water sources, from chemical contamination (including food chain effects), oil spills, excessive turbidity, and waste disposal (including vessel wastes) would adversely affect all fish and wildlife. Efforts should be made to improve water quality, including the control and reduction of discharges from vessels and upland sources. Vegetated upland buffer zones should be protected or established to further reduce water quality impairment from upland sources.

Any expansion of fishing, small boat use, and educational activities should be compatible with the preservation of natural habitats. Alteration of tidal patterns in Pipes Cove and associated tidal creeks would have major impacts on the fish and wildlife communities present. 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 dredged material placement when wildlife populations are least sensitive to disturbance. Unregulated 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. Existing and proposed dredging operations in this area should incorporate the use of best management practices to avoid and reduce adverse effects.

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 Pipes Cove Creek and Moore's Drain. 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 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 overall wetland values.

The fish and wildlife resources of the Pipes Creek Cove and Moore's Drain area could be affected by modification of public access to and/or use of the areas. Habitat modifications which substantially change the natural character of the area, such as residential, commercial, or industrial developments could have a significant impact on many wildlife species in the area.

Unrestricted use of motorized vessels including personal watercraft in the protected, shallow waters of the cove and tidal creeks of this area could 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 shallow waters and vegetated wetlands.

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, in some cases, adult) fish concentrations, through impingement or entrainment.

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:

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Significant Coastal Fish and Wildlife Habitats

Conkling Point
Pipes Cove Creek and Moores Drain
Hashamomuck Pond (In part)



New York State
Department of State

Division of
Coastal Resources

