

COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

Name of Area: **Cow Neck**
Designated: **March 15, 1987**
Date Revised: **May 15, 2002**
County: **Suffolk**
Town(s): **Southampton**
7½' Quadrangle(s): **Southampton, NY**

Assessment Criteria

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: Large, relatively undeveloped complex of coastal wetland and upland ecosystems; rare on Long Island. 25

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.

SV assessment: Least tern (T), piping plover (E, T-Fed), peregrine falcon (E), northern harrier (T), red-shouldered hawk (SC), and osprey (SC) nesting and feeding areas.
Calculation: $36 + (36/2) + (25/4) + (25/8) + (16/16) =$ 64.38

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: One of the most important deer hunting areas on Long Island. Important Town transplant area for shellfish. 9

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: Concentration of white-tailed deer is unusual on Long Island. 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.

R assessment: Irreplaceable. 1.2

Habitat Index = [ER + SV + HU + PL] = 107.38 Significance = HI x R = 128.9

NEW YORK STATE
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT
NARRATIVE

COW NECK

LOCATION AND DESCRIPTION OF HABITAT:

Cow Neck is located approximately one mile west of North Sea Harbor, in the northern portion of the Town of Southampton, Suffolk County (7.5' Quadrangle: Southampton, NY). The area is generally bounded on the west and north by the Peconic Bays, on the east by the 10-foot elevation contour, and on the south by Sebonac Creek and West Neck. The fish and wildlife habitat is an approximate 1,300 acre area, containing extensive tidal wetlands (associated with Sebonac Creek, Little Sebonac Creek, West Neck Creek, Banding Station Pond, and Scallop Pond), sand beaches and dredged material areas, mature deciduous forest, and agricultural land. Big Woods is an 87 acre mature oak, beech, and white pine forest on the southeastern end of Cow Neck, adjacent to the Emma Rose Elliston Memorial Town Park and across the road from the Nature Conservancy's Wolf Swamp Preserve. Successional maritime forest, maritime beech woodlands, and the rare maritime red cedar forest communities are also present. Most of the Cow Neck area is in private ownership for conservation purposes, including a large estate and at least 50 acres owned by the Nature Conservancy at Scallop Pond Preserve. In addition, there are a small number of private residences located within the area.

FISH AND WILDLIFE VALUES:

Cow Neck is a very large tract of undeveloped coastal land, including significant areas of undeveloped tidal marsh and mature woodlands. Areas such as this are rare on Long Island, and support many species of fish and wildlife.

Cow Neck provides valuable nesting and feeding areas for a variety of bird species, including green heron, snowy egret, black-crowned night heron, Canada goose, mallard, American black duck, wood duck, least tern (T), common tern (T), piping plover (E, T-Fed), red-tailed hawk, osprey (SC), and many passerine bird species. Northern harrier (T), red-shouldered hawk (SC), broad-winged hawk, peregrine falcon (E), barn owl, merlin, and American kestrel also occur in this area.

A colony of least terns and piping plovers have been present here present from 1982-1996, nesting on the sand peninsula which extends partially across the mouth of Little Sebonac Creek. This area was posted as a bird nesting area in 1984 and 1985, when approximately 50 pairs of least tern and 1-2 pairs of piping plover occurred. In the early 1980s, approximately 25-30 pairs of least terns and up to 3 pairs of piping plovers were observed in the area. In the last decade (1987-1996), an annual average of 3 breeding pairs of piping plover (peak number 5 pairs in 1988 and 1992), and 36 pairs of least tern (peak number 94 pairs in 1990), nested at Cow Neck. Numbers of pairs of least tern at this site have ranged from 16 to 94; high numbers occurred in the early 1990s, with numbers falling into the low end of the range since 1992. Although four pairs of common terns nested on a salt marsh/sand bar in Sebonac Creek in 1985, no reports of this species were made between 1986-1996.

Cow Neck is also an important nesting area for osprey (SC) which utilize natural nesting sites in the area. Man-made nesting platforms are also placed in a number of locations throughout the area. In the early 1980s, the annual number of osprey pairs (3-5) was declining. The tidal wetlands associated with Scallop Pond and Little Sebonac Creek are valuable as feeding areas for the osprey

and tern populations nesting in the area. The creeks at Cow Neck also support diamondback terrapin. This area may provide important breeding habitat for horseshoe crab, but additional documentation is required. The undeveloped upland areas at Cow Neck are an important habitat for white-tailed deer. The concentration of deer in this area is one of the highest on Long Island, and provides hunting opportunities of regional significance (although by invitation only).

In addition to wildlife use of the Cow Neck area, finfish and shellfish concentrations are locally significant. The tidal wetlands serve as nursery and feeding areas for many estuarine fish species, such as winter flounder, summer flounder, menhaden, weakfish, and scup. Hard clams and bay scallops are also abundant in the area, providing limited shellfishing opportunities. This area is an important Town transplant area for shellfish. Little Sebonac Creek, West Neck Creek, and Scallop Pond and its tributaries are closed to shellfishing between May 1 and November 30. Cow Neck's marshes and tidal flats contribute significantly to the biological productivity of Great Peconic Bay.

Several listed and rare plant species are documented at Cow Neck by the New York Natural Heritage Program, including seaside plantain (*Plantago maritima* ssp *juncooides*), northern gamma grass (*Tripsacum dactyloides*), slender spikerush (*Eleocharis elliptica* var *pseudoptera*), lilaopsis (*Lilaeopsis chinensis*), sea beach knotweed (*Polygonum glaucum*), Bigelov's glasswort (*Salicornia bigelovii*), salt marsh aster (*Aster tenuifolius*), marsh pink (*Sabatia campanulata*, E), coastal flatsedge (*Cyperus polystachyos* var *texensis*), retrorse flatsedge (*Cyperus retrorsus*), marsh fimbry (*Fimbristylis castanaea*, T), and the best example of slender blue flag (*Iris prismatica*) in New York State.

IMPACT ASSESSMENT:

Any activity that would substantially degrade the water quality in the tidal wetlands portion of Cow Neck would adversely affect the biological productivity of this area. Fish and wildlife would be adversely affected by water pollution, such as chemical contamination (including food chain effects resulting from bioaccumulation), oil spills, excessive turbidity, and waste disposal (including boat wastes). The Town of Southampton has conducted extensive road drainage improvement projects in the Cow Neck complex area to help mitigate problems associated with road runoff.

Unrestricted use of motorized vessels including personal watercraft in the protected, shallow waters of bays, harbors, and tidal creeks 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 shallow waters and vegetated wetlands.

Alteration of tidal patterns in Little Sebonac Creek, West Neck Creek, or Scallop Pond could have major impacts on the fish and wildlife communities present. Dredging to maintain existing boat channels in the harbor should be scheduled between September 15 and December 15 to minimize potential impacts on aquatic organisms, and to allow for dredged material disposal when wildlife populations are least sensitive to disturbance. Alterations in water circulation patterns for habitat and water quality management and improvement, including Open Marsh Water Management, may be beneficial to fish and wildlife in the area.

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. 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 Cow Neck. Alternative strategies for the protection of shoreline property should be examined, including

innovative, vegetation-based approaches. Dredged material disposal in this area would be detrimental, but such activities may be designed to maintain or improve the habitat for certain species of wildlife. 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.

Nesting shorebirds inhabiting Cow Neck are highly vulnerable to disturbance by humans, especially during the nesting and fledging period (March 15 through August 15). Significant pedestrian traffic or recreational vehicle use of the beach could easily eliminate the use of this site as a breeding area and should be minimized during this period. Recreational activities (*e.g.*, boat and personal watercraft landing, off-road vehicle use, picnicking) 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 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.

Extensive development of the upland areas could affect the habitat, through habitat fragmentation, alteration of freshwater inputs or sedimentation. The extensive woodlands at Cow Neck should be preserved as a buffer zone as well as an integral part of the habitat for many wildlife species. There is significant development pressure along the eastern boundary of Cow Neck. The Town of Southampton has identified the area as a priority for acquisition. The area has the potential to accommodate increased use for passive recreation if designed and managed to be compatible with the fish and wildlife resources.

KNOWLEDGEABLE CONTACTS:

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Significant Coastal Fish and Wildlife Habitats

- Alewife Creek and Big & Little Fresh Ponds
- Cow Neck
- Towd Point
- Robins Island (In part)

New York State
Department of State
Division of
Coastal Resources