

COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

Name of Area: **Alewife Creek and Big and Little Fresh Ponds**
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: Relatively large, deep, freshwater pond and outlet stream; unusual on Long Island because Alewife Creek has no physical barriers to fish passage. Rarity reduced by small size. Globally rare Atlantic White Cedar community. Calculation: $\sqrt{(100 \times 64)} =$ 80

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: 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: Locally significant freshwater fishing area. Alewife runs attract local viewers and a limited commercial fishery. 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: One of only 4 documented major alewife spawning runs in Peconics region. 4

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: Uncertain of ability to replace. 1.0

Habitat Index = [ER + SV + HU + PL] = 88

Significance = HI x R = 88

NEW YORK STATE
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT
NARRATIVE

ALEWIFE CREEK AND BIG AND LITTLE FRESH PONDS

LOCATION AND DESCRIPTION OF HABITAT:

Alewife Creek and Big Fresh Pond are located approximately two miles north of the Village of Southampton, in the Town of Southampton, Suffolk County (7.5' Quadrangle: Southampton, NY). The fish and wildlife habitat includes all of Big Fresh Pond and an approximate 0.6 mile segment of Alewife Creek extending from Big Fresh Pond to Noyack Road. Big Fresh Pond is a natural freshwater lake, approximately 85 acres in size, with a maximum depth of over 50 feet. Big Fresh Pond has become increasingly eutrophic since the late 1960's, and water quality has deteriorated. Alewife Creek is a very small, but free-flowing, freshwater tributary which drains out of Big Fresh Pond into North Sea Harbor. The creek becomes tidal and brackish below Noyack Road. Little Fresh Pond is situated within a north-west corridor containing the globally rare Atlantic White Cedar community, which is also included in this habitat. Alewife Creek and Big and Little Fresh Ponds are located within a medium density residential area, but are generally bordered by undeveloped woodlands, including the Nature Conservancy's Wolf Swamp Sanctuary on the west side of the pond, also included within the habitat boundary.

FISH AND WILDLIFE VALUES:

Alewife Creek and Big and Little Fresh Ponds contain a variety of freshwater habitat types that are not uncommon in Suffolk County. However, this ecosystem is unusual in being free of barriers to fish migrations between the ocean and the headwater pond.

Alewife Creek and Big and Little Fresh Ponds comprise one of only four documented major spawning areas for alewife in the Peconics region. Alewives migrate from the ocean to spawn in freshwater. Spawning occurs in Big Fresh Pond, following annual migrations up Alewife Creek in March and April. Most juvenile alewives migrate out of the pond by May. The spring spawning migrations attract large numbers of fish, and viewers, and provide a limited commercial fishery. In addition, Big Fresh Pond is an important habitat for a variety of freshwater fish including largemouth bass, chain pickerel, banded killifish, pumpkinseed, yellow perch, white perch, brown bullhead and American eel. The pond also contains freshwater mollusc populations needing inventory and study, as such populations are becoming increasingly rare on Long Island.

This area provides locally significant recreational fishing opportunities, with access for Southampton Town residents available from Elliston Town Park, on the north side of the pond. Alewife Creek is uncertified for shellfishing year-round. Wildlife use of the area is not well documented, but many bird species which use the Cow Neck area also use Big Fresh Pond, Little Fresh Pond, and Alewife Creek for feeding and resting including terns, gulls, herons and osprey

(SC). One pair of osprey has been observed nesting in the Wolf Swamp Sanctuary adjacent to Big Fresh Pond. Further documentation is needed on the use of the area by this species. Concentrations of waterfowl also occur on Big Fresh Pond during migration.

IMPACT ASSESSMENT:

Any activities that would further degrade water quality, increase turbidity, or alter water depths, would have significant impact on fish and wildlife species inhabiting Alewife Creek and Big and Little Fresh Ponds. Warmwater fish species would be most sensitive April 1 through July 30, when spawning takes place.

The small size of Alewife Creek above Noyack Road makes it particularly sensitive to disturbance. Improving water quality in Big Fresh Pond is largely dependent on the elimination of all point and non-point source discharges into the Pond. Any new developments should contain all stormwater to prevent any discharge into the pond. The Town of Southampton has undertaken extensive road drainage improvement projects in the Big Fresh Pond and Alewife Creek watersheds to mitigate urban runoff into these waterbodies.

Creation of any barriers to fish migration, whether physical or chemical, would have significant effect on the biological resources of this area. Any substantial disturbance of the vegetative cover within or adjacent to these aquatic habitats and in the adjacent wetland areas would adversely affect water quality in Alewife Creek and Big and Little Fresh Ponds. However, access to the area for compatible recreational uses of the fish and wildlife resources should be maintained or enhanced. 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.

KNOWLEDGEABLE CONTACTS:

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

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

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

Wildlife Manager
NYSDEC—Region 1
State University of New York, Building 40
Stony Brook, NY 11790
Phone: (631) 444-0310

Fisheries Manager
NYSDEC—Region 1
State University of New York, Building 40
Stony Brook, NY 11790
Phone: (631) 444-0280

New York Natural Heritage Program
Wildlife Resources Center
700 Troy-Schenectady Road
Latham, NY 12110
Phone: (518) 783-3932

Environment Division
Department of Land Management
Town of Southampton
116 Hampton Road
Southampton, NY 11968
Phone: (631) 287-5710

Natural Science Division
Long Island University—Southampton
Montauk Highway
Southampton, N.Y. 11968
Phone: (631) 283-4000

Office of Ecology
Suffolk County Dept. of Health Services
Bureau of Environmental Management
County Center
Riverhead, NY 11901
Phone: (631) 852-2077



Significant Coastal Fish and Wildlife Habitats

Alewife Creek and Big & Little Fresh Ponds

Cow Neck

Towd Point

Robins Island (In part)

