Attachment B:

COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

Name of Area:	**Democrat Point**
Designated:	**December 15, 2008**
County:	**Suffolk**
Town(s):	**Babylon**
7½' Quadrangle(s):	**Bay Shore West, NY**

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:	Undeveloped barrier beach habitat adjacent to a major inlet is rare on Long Island; rarity is increased by the presence of endangered flora.	**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. (E= Endangered, T= Threatened, SC= Special concern)		
SV assessment:	Piping plover (E, T-Fed), common tern (T), and least tern (T) nesting and feeding. Additive division: 36 + 25/2 + 25/4 = 54.75	**54.75**
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:	Provides access to recreational fishery of statewide significance.	**16**
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 significant population level occurrences 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) = 95.75 **Significance: (HI x R) = 114.9**

NEW YORK STATE
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT
NARRATIVE

DEMOCRAT POINT

LOCATION AND DESCRIPTION OF HABITAT:

Democrat Point is located on the western tip of the Fire Island barrier island. Democrat Point is located in the Robert Moses State Park, in the Town of Babylon, Suffolk County (7.5' Quadrangle: Bay Shore West). The Democrat Point significant habitat is located on approximately 350 acres within the western half of Robert Moses State Park, up to the Robert Moses Bridge (excluding the Pitch-Putt Golf Course) and extends waterward to mean low water. Due to the dynamic nature of the Atlantic shoreline, the southern boundary of the Democrat Point significant habitat will reflect the most current land forms, extending to mean low water. The habitat is comprised of maritime dunes fronted by maritime beach, with small scattered inland interdunal swales. Maritime beach is a sparsely vegetated community dominated by beach grass (*Ammophila breviligulata*), and is associated with the federally threatened and state endangered seabeach amaranth (*Amaranthus pumilus*). Maritime beach occurs on unstable sand, gravel, or cobble ocean shores above mean high tide, where the shore is modified by storm waves and wind erosion. The community is an important nesting ground for beach nesting shore birds. The maritime dune community is comprised of grasses and low shrubs in a mosaic of vegetated patches dominated by beach grass, seaside goldenrod (*Solidago sempervirens*), and the globally rare seabeach knotweed (*Polygonum glaucum*).

Seabeach amaranth (E, T-Fed), commonly associated with piping plover (E, T-Fed), has been observed at this site since 1994. An average of 375 plants have been documented annually on Democrat Point from 1994-2001 (1996 and 1997 were not surveyed). Seabeach amaranth (E, T-Fed) on Democrat Point grows on an extensive series of interdunal swales fronted by wide sandy beaches on the south and by beaches with a jetty and sand spits on the west. Seabeach amaranth (E, T-Fed) has been eliminated from two-thirds of its historic global range with typically fewer than 5 occurrences in New York State. Hundreds of seabeach knotweed (T) plants have been reported on the sand spit of the western tip of Democrat Point. Seabeach knotweed (T) is rare in New York State with fewer than 35 occurrences, and only 21 to 100 plants occur globally. Spring Ladies'-tresses (*Spiranthes vernalis*) (E) are found on level grounds on extensive series of interdunal swales located on the backside of moist and sandy beach dunes. Democrat Point is one of six documented occurrences for Spring Ladies'-tresses (E) in New York State, and this area supports the largest of these populations. Spring Ladies'-tresses (E) are commonly associated with beach grass and slenderleaf false foxglove (*Agalinis tenuifolia*).

FISH AND WILDLIFE VALUES:

The Democrat Point fish and wildlife habitat consists of a small segment of an undeveloped barrier beach. Democrat Point serves as an important nesting site for least tern (T) and piping plover (E, T-Fed). The shallow waters along the beaches provide an important feeding area for colonial waterbirds, particularly least terns (T). During the 13 year period from 1993 to 2005, the site averaged

approximately 10 pairs (41 in peak year) of nesting least terns (T) per year. The least tern (T) breeds in colonies as large as 200 birds including roseate (E), common (T), and gull-billed terns, along with black skimmer (SC). Least tern (T) nests are simple scrapes built in sand or gravel, and may be sparsely lined with shells and other debris (e.g. seaweed). Least tern (T) feed by striking the water in shallow dives, or skimming the surface for small fish. Piping plover (E, T-Fed) also are commonly found nesting in association with least tern (T). From 1993 to 2005, nesting piping plover (E, T-Fed) at Democrat Point Beach averaged 5 pairs per year (17 in peak year). Piping plover (E, T-Fed) nests resemble those of least tern (T), but plover nests are usually placed well above the high tide mark on open, grassless sand beaches, or areas containing dredged material. Their diet consists primarily of marine worms, insect larvae, beetles, crustaceans, and mollusks they obtain from foraging on beaches, dunes and tidal wrack. From 1993 to 2005, common tern (T) at Democrat Point averaged 6 pairs per year (68 in peak year).

The maritime shrub communities and more heavily vegetated dunes of Robert Moses State Park are also ecologically important for migratory passerines and raptors, particularly during fall migration. The tidal area is especially important for the diversity and abundance of migrant shorebirds which utilize the area. The beaches of Democrat Point and Robert Moses State Park also provide recreational opportunity for surfishing of statewide significance, although such activities may have a negative impact on the productivity of beach nesting shorebirds.

IMPACT ASSESSMENT:

Nesting shorebird species inhabiting the barrier beaches of Long Island are highly vulnerable to disturbance by humans from March 15 through August 15. Significant pedestrian traffic or recreational use of the upper beach, dunes and adjacent areas (e.g., boat and personal watercraft landing, off-road vehicle use, picnicking) could easily eliminate the use of this site as a nesting area and should be minimized during this period. Reduction, or loss of the area presently utilized by nesting colonies could significantly affect the bird populations in this vicinity. 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. Appropriate placement of trash receptacles and signs promoting proper trash disposal would be beneficial to the habitat as beach lying trash may attract additional predators to sensitive populations. Fencing and/or annual posting of the bird nesting area should continue be provided (and enforced) to help protect the nesting bird species. Unregulated dredged material placement in this area would be detrimental to the habitat area, but such activities may be designed to maintain or improve the habitat, by setting back vegetative succession.

Disturbance of the natural dune communities would adversely affect concentrations of a wide variety of wildlife species. Construction of adjacent recreational facilities should be designed to minimize impacts to the nesting areas. Construction of new or maintenance of existing erosion control structures which interfere with natural coastal process should be carefully evaluated for need and where possible, non-structural solutions should be utilized.

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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GREAT SOUTH BAY-WEST

JONES BEACH EAST

DEMOCRAT POINT

Significant Coastal Fish and Wildlife Habitats

Democrat Point
Jones Beach East (In Part)
Great South Bay West (In Part)

0 2000 feet

Contours, at 5-foot intervals, shown unrevised from 1969 U. S. Geological Survey map. Datum is mean sea level.

New York State Department of State
Division of Coastal Resources