

Attachment B:

COASTAL FISH & WILDLIFE HABITAT ASSESSMENT FORM

Name of Area: **Westhampton Beach and Dunes**
Designated: **December 15, 2008**
County: **Suffolk**
Town(s): **Brookhaven, Southampton**
7½' Quadrangle(s): **Eastport, NY; Quogue, 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: Large segment of barrier beach; rare in New York State.

64

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) and least tern (T) foraging and nesting grounds.
Additive division: $36 + 25/2 = 48.5$

48.5

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 human uses at the site.

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: The largest concentration of piping plover (E, T-Fed) and least tern (T) on Long Island; of statewide significance.

16

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) = 128.5

Significance: (HI x R) = 154.2

NEW YORK STATE
SIGNIFICANT COASTAL FISH AND WILDLIFE HABITAT
NARRATIVE

WESTHAMPTON BEACH AND DUNES

LOCATION AND DESCRIPTION OF HABITAT:

Westhampton Beach Dunes is approximately a 7.75 mile stretch of barrier beach, extending west to east from the Cupsogue County Park significant habitat border to south of the junction of Post Lane and Dune Road Marsh, in the Town of Southampton, Suffolk County (7.5' Quadrangles: Easport, N.Y.; and Quogue, N.Y.). Due to the dynamic nature of the Atlantic shoreline, the southern boundary of the Westhampton Beach and Dunes significant habitat will reflect the most current land forms, extending to mean low water. Abutting the northern boundary of Westhampton Beach and Dunes are residential developments. The fish and wildlife habitat includes well developed dunes (over 20 feet high at their maximum elevation) on the west end of the beach and open beach throughout. Communities at Westhampton Beach and Dunes include maritime beach and maritime dune communities. Maritime beach is a sparsely vegetated community dominated by beach grass (*Ammophila breviligulata*). 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 shorebirds. The maritime dune community is comprised of grasses and low shrubs in a mosaic of vegetated patches dominated by beach grass and seaside goldenrod (*Solidago sempervirens*).

Seabeach amaranth (E, T-Fed) (*Amaranthus pumilus*), commonly associated with piping plover (E, T-Fed), has been observed at this site. 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. Seabeach knotweed (T) (*Polygonum glaucum*) has also been observed at this site. Seabeach knotweed (T) is rare in New York State with fewer than 35 occurrences and globally it is rare and restricted throughout its range with between 21 and 100 occurrences.

FISH AND WILDLIFE VALUES:

Undeveloped barrier beach ecosystems of this size are rare in New York State. Westhampton Beach and Dunes is a critical foraging and nesting habitat for shorebird species including piping plover (E, T-Fed) and least tern (T). Shorebird surveys for the 13 year period from 1993-2005 indicate average annual concentrations of 44 piping plover (E, T-Fed) breeding pairs (70 in peak year) and 317 least tern (T) breeding pairs (502 in peak year). Based on these surveys, Westhampton Beach and Dunes supports piping plover (E, T-Fed) and least tern (T) populations of statewide significance. Least terns (T) typically nest in simple scrapes built in sand or gravel, sparsely lined with small shells or other debris (e.g. seaweed). Least tern (T) breeding colonies may contain several hundred birds, including roseate (E), common (T), and gull-billed terns, along with black skimmer. Productivity of the surrounding waters is of vital importance to tern species because they feed by striking the water in shallow dives, or skimming the surface for small fish. 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. Piping plover (E, T-Fed) generally nest with a least tern (T) colony. Their diet consists primarily of marine worms, insect larvae, beetles, crustaceans, and mollusks they obtain from foraging on beaches, dunes and tidal wrack.

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 (e.g., boat and personal watercraft landing, off-road vehicle use, picnicking) of the upper beach and dune areas 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. Fencing and/or annual posting of the bird nesting area should be provided 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. Construction of shoreline structures, such as bulkheads, groins or jetties, in areas not previously disturbed by development (e.g., natural beach), may result in the loss of productive areas which support the fish and wildlife resources of Westhampton Beach and Dunes.

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:

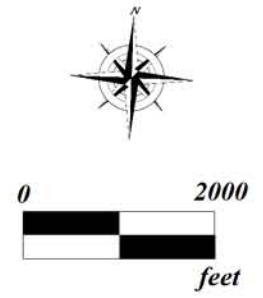
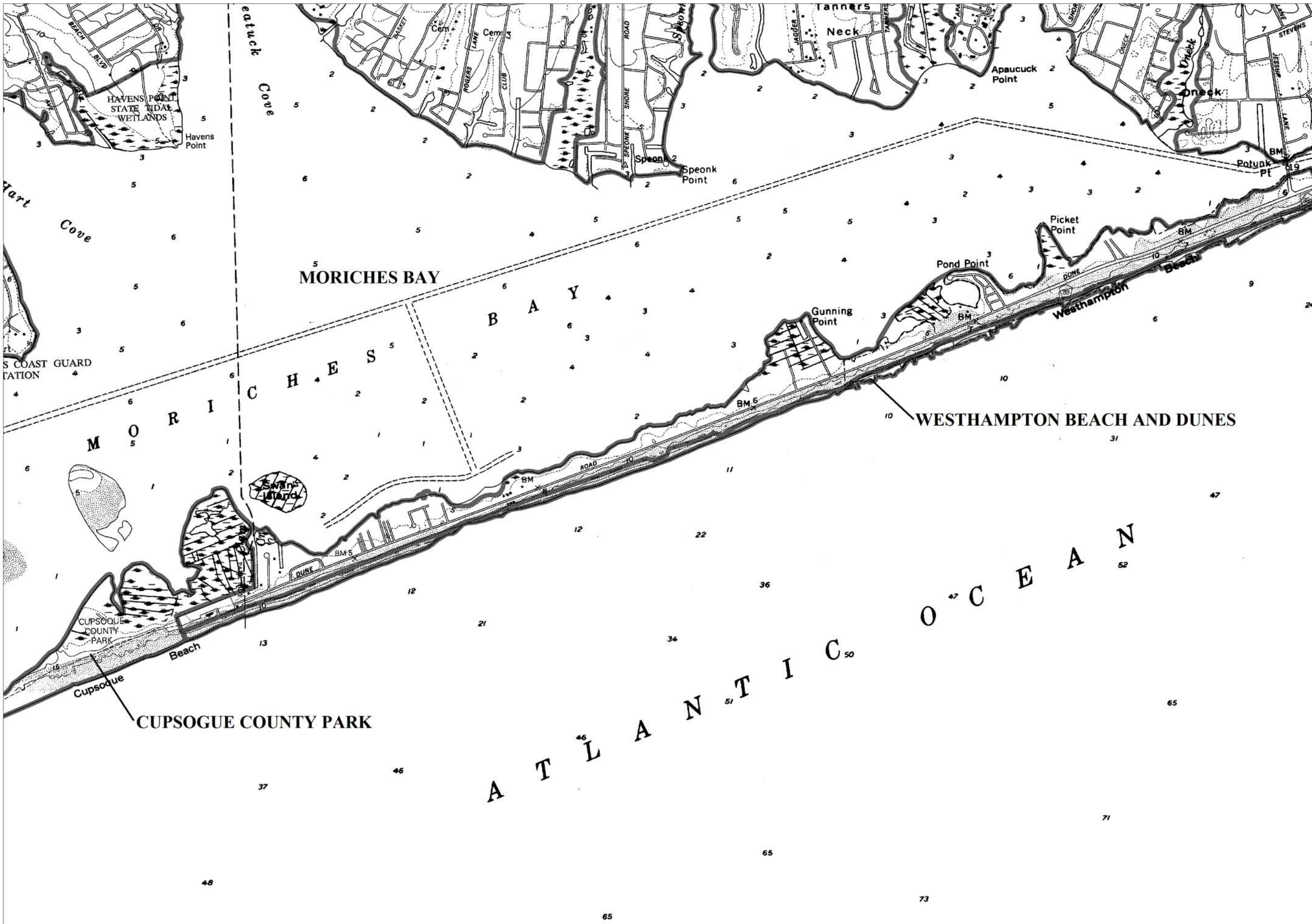
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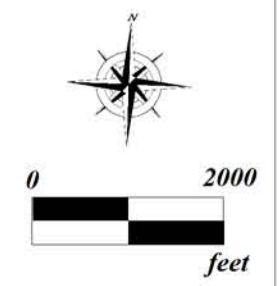
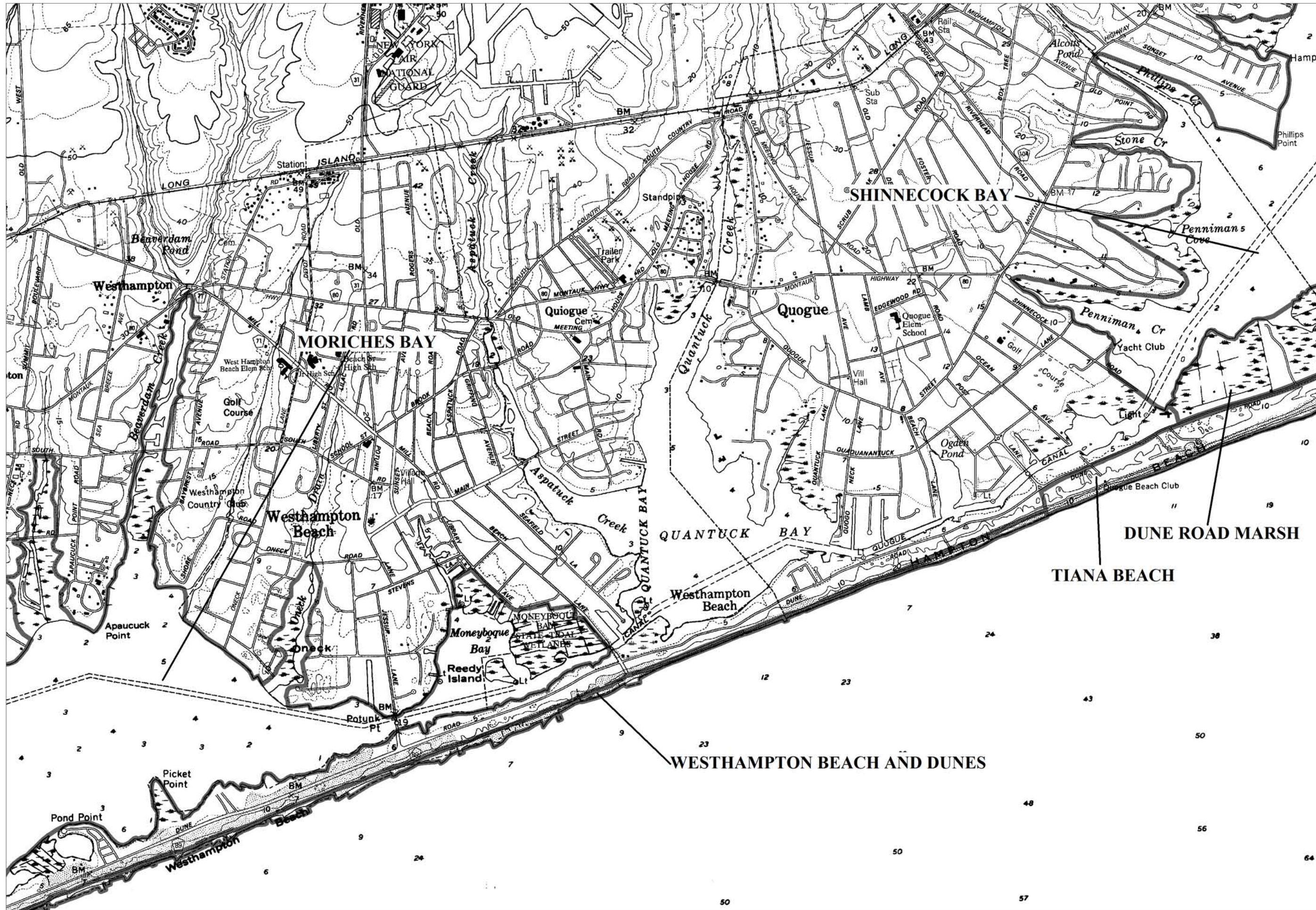
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Significant Coastal Fish and Wildlife Habitats

- Westhampton Beach and Dunes
Part 1 of 2
- Cupsogue County Park (In Part)
- Moriches Bay (In Part)



Significant Coastal Fish and Wildlife Habitats

- Westhampton Beach and Dunes
- Moriches Bay (In Part)
- Shinnecock Bay (In Part)
- Tiana Beach (In Part)
- Dune road Marsh (In Part)