SECTION II: INVENTORY AND ANALYSIS

The preparation of an LWRP begins with a comprehensive inventory and analysis of the waterfront to identify important resources, problems and opportunities.

The inventory and analysis evaluates the Town's waterfront resources. These include: geologic information, wetlands, fish and wildlife habitats, scenic views, historic resources, drainage basins, flood hazard areas, and air and water quality.

It also describes existing land and water uses and development patterns and identifies specific problems and opportunities to improve, enhance and make better use of Stony Point's waterfront resources.

A. COMMUNITY PROFILE

The Town of Stony Point, located in the northern end of Rockland County, covers an area of 25.9 square miles. Rockland County is separated from Westchester County by the two largest bays of the Hudson River's course: Haverstraw Bay toward the northern part of the County and Tappan Zee in the southern half of the County. According to the 1990 census, the population of the Town is 12,814. It is bordered on the east by the middle of the Hudson River, on the north and west by Orange County, and on the south by the Town of Haverstraw. Stony Point is approximately 43 miles from New York City and is located within the large metropolitan region which has its heart in New York City and extends outward from Manhattan for a distance of approximately 50 miles. The length of the Town's WCA shoreline is 10.2 miles.

The Palisades Interstate Park (PIP) in the northern half of the Town accounts for 65% of land in Stony Point. Most of the Bear Mountain State Park, part of Harriman State Park and the Stony Point Battlefield State Park are located in the Town's portion of the PIP. Most of the park land is undeveloped and is used for passive recreational purposes such as hiking and fishing. Two large active recreation areas are found at the Bear Mountain Inn and Lake Welch. The accessibility of these facilities within the New York metropolitan area frequently results in crowded conditions which limit access by Town residents. However, greater access is provided at the Stony Point Battlefield, an 80 acre park set aside for passive recreation uses such as walking and picnicking. Almost all of the Town's residents live in single family homes and most of the vacant residential land is zoned for one acre lots or larger. Commercial development in the Town fronts on Route 9W, and much of it is located in two shopping centers near the center of Town. The Town's geographic assets of rugged wooded mountains and river-front lands have resulted in a substantial amount of land devoted to semi-public recreation. Private swim clubs and marinas comprise approximately 155 acres, while a Girl Scout camp and a Boy Scout camp account for another 640 acres. A large sand and gravel quarry (Tilcon) and a power-generating plant (Orange and Rockland Utilities) comprise approximately 225 acres in the Tomkins Cove area of the river front. The West Shore line of the Penn-

Central Railroad occupies a total of 1000 acres within the Town. Letchworth Village, a residential facility for the care, treatment and rehabilitation of developmentally challenged children and adults, covers 310 acres in the west-central area of the Town.

Physical Features and Land Characteristics

The Town of Stony Point is situated between the Hudson River and the Ramapo Mountains. The topography of the Town is characterized from west to east by steep slopes, rolling foothills, elevated plateaus, river plains and wetlands. The steep slopes of the Ramapo Mountains occupy the western and northern sections of the Town and generally are located within the Palisades Interstate Park. These mountains, which contain about two-thirds of the land area in the Town, have slopes ranging from 20 to 40+ percent and elevations generally ranging from 600 to 1000 feet, with a maximum height of 1,257 feet on West Mountain.

Rolling foothills lie in a southwest to northeast direction, just east of the Palisades Interstate Park. Southeast of the foothills lies an elevated plateau on which most development has taken place. Elevations range from 150 to 200 feet, with gentle slopes of 5 to 10 percent. Route 9W forms the eastern boundary of much of this elevated plateau. East of Route 9W, the land slopes down sharply to the river plains and wetlands along the Hudson River. The tidal marsh, where the estuary of Cedar Pond Brook and Minisceongo Creek approach the Hudson River, house several marina complexes.

The terrain of the Town has been closely related to the various types of physical development in the Town. North of Tomkins Cove, the river plain narrows down to a few hundred feet in width barely wide enough to accommodate some scattered residential development and a railroad right-of-way. Large industrial complexes are located on the flat plains near the river. Residential development, commercial, public and semi-public lands are found on the plateau lands between the river and the mountains. The foot-hills are relatively undeveloped and have only recently experienced any large-scale residential development. The steep mountain slopes to the west are either preserved in their natural state or developed for recreational purposes.

A major influence on the physical development of Stony Point is Cedar Pond Brook. The brook originates in the Ramapo Mountains and drains into the Hudson River. In the mountains and along much of its course to the river, Cedar Pond is a recreational asset, as well as a water source for Stony Point. Cedar Pond Brook has, through time, formed a deep gorge through the developed area of the Town and has resulted in a distinct north-south division within the Town. Generally, a higher concentration of new development has taken place north of Cedar Pond Brook. Since few bridges cross Cedar Pond Brook, the tributary limits access to the Hudson River.

B. HISTORICAL DEVELOPMENT OF THE WATERFRONT AREA

Stony Point was settled before the Revolutionary War, some land patents having been granted as early as 1719. At that time, the region was a part of Haverstraw. Its name was derived from the outcroppings of rock seen from the Hudson River. Parts of the Town of Stony Point include the hamlets of Stony Point, Grassy Point, Jones Point, and Tomkins Cove, all of which are located along the waterfront. The early settlers were mainly English and Irish, with a few French Huguenots and Dutch.

Early settlement began primarily along the Hudson River and by creeks and ponds. Deposits of limestone and iron were discovered early along the waterfront. Around 1766, a company of German miners visited the area and began mining and furnace operations which, by 1844, became the Haverstraw Iron and Mining Company.

By 1830, in the Tomkins Cove region, Calvin Tomkins and his family established the Tomkins Cove Stone Company, which later became New York Trap Rock, and still later, part of Martin-Marietta Aggregates.

During the same time period the brick-making industry (which really predominated in Haverstraw) was established between Long Clove and Tomkins Cove along the Hudson River, and lumberyards were opened. As trees were felled inland, they were brought to the riverfront and used to fire the brick-making furnaces and for home building. The people of Stony Point lived mainly by quarrying, mining, and lumbering.

It was during this period that the land use and appearance of Grassy Point changed dramatically. What had been a lovely wooded grove with magnificent oak and chestnut trees and tall grasses became an unsightly clay pit and brick-kiln area during the latter half of the nineteenth century.

During the Revolutionary War, Stony Point was an important part of the Hudson Highlands network of road-and-river transport to the strategic port in New York City. British and American troops travelled back and forth from Forts Clinton and Montgomery a few miles north of the Town, through Orange and Rockland Counties, southward. Skirmishes occurred frequently, houses and barns were burned, cavalry charged north and south, and ships carrying arms and men traversed the Hudson River.

For a few years during the Revolutionary War, Stony Point was under Tory occupation, until a daring midnight raid by General "Mad" Anthony Wayne. The fort at Stony Point, now the Stony Point Battlefield Park, was captured by General Wayne against tremendous odds and in a complete surprise attack. The date of the attack, July 16, 1779, is still celebrated in the Town.

In the beginning of the 19th century a rumor arose that Captain Kidd's treasure, often called the Spanish Mine, was buried offshore in the Hudson River, below Dunderberg

Mountain. Thousands searched, and a salvage company was formed. They found only some remaining Revolutionary War cannons.

Dunderberg Mountain, now a part of Bear Mountain State Park, was also the setting for another event. An adventuresome speculator, having decided the mountaintop would be a spectacular scenic resort, planned a luxury hotel and observatory there and began laying a roadbed for a railway, the Dunderberg Spiral Railway to the summit. This uncompleted and abandoned scenic venture is one of the curiosities of the highlands. Walkers over Dunderberg Mountain, on the Ramapo-Dunderberg Trail or on old roads that climb the sides of the mountain, come upon sections of the grade of a railway which can be followed for stretches as long as a mile. At one time the railway consisted of a cable incline starting from the level of the Hudson River at a point about a half mile south of Jones Point and rising in two stages to the summit at 926 feet, the site of the proposed hotel and summer colony. The descent was to be made by gravity on a winding course with gentle grades over the face of the mountain, some 10 miles in all.

In 1889, a company was incorporated and work continued from 1890 through part of 1891. However, these years were the beginning of a grave depression, and financial backing began to dwindle. Those who had invested into the venture lost many dollars, workmen rioted when payrolls were not met, and thus, the scheme fell through. One can still see the remains of the scenic railway, the dream of a few entrepreneurs, when hiking up the Dunderberg today.

Just north of Dunderberg Mountain, near the Orange County line, there was a sparsely settled community called Doodletown (so named when Revolutionary War militia men sang "Yankee Doodle"). Doodletown was populated by woodsmen who engaged in cutting and hauling lumber for use in the brick yards. Since it was in the Bear Mountain Park region, the last few families residing there in 1971 were requested to relocate so that the area could be included in the vast parkland holdings.

Hudson River traffic has also been important to the Town of Stony Point. The King's Ferry, established about 1775, ran from northern Stony Point to Verplanck's Landing, in Westchester County. Another ferry ran from Caldwell's Landing to Peekskill. About 1830, a steamboat landing was built at Grassy Point for steamers going up and down the river. In 1826, the U.S. Government erected a lighthouse at the Stony Point promontory which still exists today in the Battlefield Park. In the early history of the Town, the Hudson River was much more important for its transportation value than it is now, but materials are still hauled to and from industries in Stony Point via the Hudson River. Martin Marietta Aggregates and U.S. Gypsum are two principal users of this mode of transportation.

Historic Resources (See Map 3)

Boulderberg Manor

Located on the east side of Route 9W at the end of a long entering lane, this mansion, the former home of Calvin Tomkins, is architecturally important as being the first poured concrete building in New York State. Its style, ornate Hudson River Gothic, reflects the vogue of 1858, the date of its construction. It is now a restaurant, retaining all of the interior architectural features of the past and housing many artifacts. Boulderberg Manor is a potential candidate for listing on the National and State Registers of Historic Places.

The House of the Good Shepherd (also known as House of Prayer Church)

In August of 1865, a German widow died in Haverstraw and left four young children to the care of the minister of Trinity Parish, Ebenezer Gay. A few days later, an English woman died and also left her three children to his care; thus began the House of the Good Shepherd.

First located in Haverstraw, then in a house belonging to Henry Garnerville, then on Mott Farm Road, where it came under the care of the Episcopal Diocese of New York City. A group of buildings were erected near a house where the minister lived. The stone gatehouse became an infirmary. Other buildings were used for the children's housing and schooling, and the Chapel of the Holy Child Jesus. This chapel later became the present church of St. John the Divine.

In 1892, the House of the Good Shepherd was taken over by the Fresh Air Association of New York City's St. John the Divine. For the next 81 years, it operated as a summer camp. In 1973, however, new State laws outmoded the facilities, and the House of the Good Shepherd had to be closed. It is currently used as a private residence. The House of the Good Shepherd is a potential candidate for listing on the National and State Registers of Historic Places.

Iona Island and Iona Island Marsh

Iona Island is in the northern part of the waterfront. At one time it was the private estate of Dr. E.W. Grant, and in 1847 he began grape cultivation on the island. Later, Iona Island became a vacation resort, and in 1899 the U.S. Government purchased it for use as a naval magazine and munitions house. The Palisades Interstate Park Commission took over the island in the 1960s. Iona Island is recognized and valued by the public as a protected wildlife habitat, part of the Hudson River National Estuarine Research Reserve and as part of the Bear Mountain State Park.

Iona Island Marsh is located west of Iona Island. The Iona Island Marsh is part of the Bear Mountain State Park and is owned by the Palisades Interstate Park Commission.

The Marsh is a designated Significant Coastal Fish and Wildlife Habitat, part of the Hudson River National Estuarine Research Reserve, and a National Natural Landmark.

Mothball Fleet

For many years the "Mothball Fleet" was a familiar sight along Stony Point's waterfront. For 25 years, until mid-1971, almost 200 ships were berthed off Stony Point in the Hudson River. Some were sold for scrap, some for use as floating warehouses. The memory of the sight of column-after-column of gray ships remains among many Town residents and is commemorated by a monument of crossed anchors beside Route 9W.

Proudfoot's Landing (at the bend of Main Street, Grassy Point)

The property has changed hands many times over the years. Philip Verplank, from across the river at Verplank's Landing, bought Grassy Point in 1820. A few years later it became the property of the enterprising Dr. Lawrence Proudfoot, who divided it into lots. He also saw the potential resource of the deep water here and built Grassy Point's first steamboat landing. Within a few years of its construction, Martin Van Buren, the President of the United States from 1837 to 1841, drove up to Proudfoot's Landing and was welcomed by the people who came from miles around. This property is now owned by the Town of Stony Point and is used as a public park.

St. Joseph's Church (south side of Main Street, Grassy Point)

In the midst of the new prosperity due to brick making, the spiritual needs of the community were not forgotten. The brick makers of Grassy Point gave the bricks for the building of St. Joseph's Church, a church that ministered to many generations until it closed on October 26, 1969. A hundred years earlier, Adam Lilburn, a Protestant, donated the land for the church. A lot between the church and school, not included in Lilburn's gift, was given to the church by Patrick H. Brophy after Lilburn had sold Brophy his land. The church no longer exists at the property.

Grassy Point School

The first school, a little frame building, consisted of one room. However, in 1870 it was replaced by a two-story brick building, and later enlarged. It was one of the last of the one or two room schoolhouses used in the metropolitan area. Grassy Point School finally closed in 1963. The school no longer exists at the property.

Neilly Mansion (located on the south side of John Street)

The mansion, a large clapboard structure, is built in the Victorian manner and complete with fine cupola. It was originally built by the Neilly family with two entrances; one through a grove of trees from John Street, and one up a steep incline from the Lowland

Hill Road. The entrance from John Street is still used to approach the house (which has now been divided into apartments), while the entrance from below can just barely be discerned through the heavy foliage. The Neilly Mansion has been recently refurbished and is used as a private residence. It is a likely candidate for listing on the National and State Registers of Historic Places.

Rose Memorial Library (East Main Street)

The Rose Memorial Library is on the site of the William Knight House. Funding for construction of the building was given by Ezekiel O. Rose, who opened Stony Point's first pharmacy in 1865.

Stony Point Town Hall (East Main Street, south side)

The present Stony Point Town Hall was formerly the house and office of the venerated Dr. John Sergstacken, horse and buggy physician to the community. The building later served as the Stony Point High School. In 1966 it became the Stony Point Town Hall. The building is a potential candidate for listing on the National and State Registers of Historic Places.

Malloy's Corner

The road from the Penny Bridge met the roads coming from Tomkins Cove and the Kings Ferry at an intersection which was locally called over the years: Knight's Corner, North Haverstraw, Flora Falls and Stony Point.This intersection later became a Town activity center. Because of its geography, the spread of industries along the river, and the proximity of the larger more firmly established community of Haverstraw, Stony Point never developed a formal active downtown area. Knight's Corners contained the stores and services needed by the Town residents. Here, Theodore Smith built the first store in the late 1830's on the site of Malloy's Pharmacy. Later, William Knight bought land from Smith, built a house and managed the store. The building at the northeasterly corner of this intersection is a potential candidate for listing on the National and State Registers of Historic Places.

Waldron - Bontecou House (located a short distance north of Malloy's Corner on the west side of Route 9W)

Built in 1751, by Resolvert Waldron, this house is believed to be the oldest house in Stony Point. According to an old legend, Resolvert Waldron's grandson, Tobias, may have been the person who entertained Lafayette and Washington on their way to Tappan for the trial of Andre.

The house is a fine example of early Dutch architecture, displaying features such as a basement kitchen with a huge fireplace; a two part Dutch door with its original hardware;

an additional fireplace with the original crane and pot hooks. The building is now hidden from view along Route 9W by a gardening center. It is a likely candidate for listing on the National and State Registers of Historic Places.

Old Stony Point Firehouse

Constructed in 1897, it was the first home of the Wayne Hose Company. Later, it served as both a Community Hall and as the headquarters of the Stony Point Police Department. It has since been refurbished for use as a private residence.

Stony Point Lighthouse

Henry Hudson anchored his ship off Stony Point promontory with no light to warn him of its dangers. In 1826, the federal government erected a lighthouse on the site of a British blockhouse. Built of fieldstone, the lighthouse was 30 feet high, with circular walls 2 feet thick. Its 520 candlepower light burned 500 gallons of kerosene a year. Its huge prism reflector lens was 4 feet high and 4 feet wide.

The light warned down-river craft of the last sharp twist before reaching the wider stretches below; and up-river craft of the Hudson's narrowing. The deep water channel ran within 150 feet of the point, yet, in all its 100 years of service only one ship wrecked at the point.

In 1926, the lighthouse was abandoned and replaced by a skeleton and steel supported light. In 1961, the historic lighthouse became part of Stony Point Battlefield Park and was listed on the National Register of Historic Places.

Stony Point Battlefield

This rocky promontory was the scene of the battle that gave the Town its name and assured it a place in history. Privately owned from colonial days until January 14, 1899, title to the 33.7 acres was then transferred by Watson and Kitty Tomkins to the "Trustees of Scenic and Historical Places and Objects." In 1961, the Department of Interior designated this battleground a National Historic Landmark. Its historical markers tell the entire story. Its museum holds historical documents and relics of local, as well as national, interest.

The park opened to the public in 1902. In 1909, the present entrance archway was constructed with assistance from the Daughters of the American Revolution. During this time period, the Stony Point Battlefield Reservation was a well kept and important recreational area.

The site was used by local people who arrived on foot or by bicycle, and tourists from further away who arrived by horse drawn carriages, railroad, early gasoline vehicles, and

by boat. Arrival by boat became extremely popular at Stony Point. Small row boats, sailboats and large pleasure craft including yachts and steamboats stopped for day trips at the park. Later in that decade, a dock was built on the north shore of the promontory to accommodate the increasing boat traffic. The dock facilities were upgraded just after the turn of the century. This included the construction of a larger concrete dock with a walkway around the perimeter, metal railings for safety, wide steps providing access to the shore and docked vessels, and four large moorings for large vessels such as dayliners and small yachts.

Bathing facilities were also constructed in the dock area to take advantage of a small, but beautiful, black sand beach and river swimming area.

A concrete bathhouse with eight changing rooms and clean running water piped down from the hill above was tastefully set into the hillside facing the beach.

King's Ferry

Located at the cove just north of the Stony Point Battlefield, the King's Ferry once provided ferry service between Stony Point and Verplanck (located in Westchester County). The ferry was the object of the Battle of Stony Point. Only a bulkhead endured as a reminder of its previous use. The property is now privately owned.

Immaculate Conception Church (located at the foot of Buckberg Mountain on the west side of Buckberg Road)

Although Catholic residents began to hold services in Tomkins Cove homes and at the Tomkins Cove Lime Company as early as 1845, it was not until 1861 that the Immaculate Conception Church was erected. A school started in the church basement did not last very long because of a decrease in the Catholic population at that time, and a lack of necessary funding. The Immaculate Conception School was again opened in 1904. In 1951 it was damaged by fire. In 1952, the present school was opened on East Main Street in Stony Point. The church is a likely candidate for addition to the National and State Registries of Historic Places.

Tomkins Cove Library (west side of Route 9W)

Erected by Calvin Tomkins in 1874, this large and commodious building was a school run by the Tomkins Cove Union Free School District. The building was closed as a school when centralization went into effect, and today serves an equally useful function as the Tomkins Cove Library. The library is a potential candidate for addition to the National and State Registers of Historic Places.

Bear Mountain State Park

The Bear Mountain State Park, part of the Palisades Interstate Parks system, was the first developed recreational park in New York State. The creation of the park began in 1910, with a gift of 10,000 acres of land west of the Hudson River from Mrs. Mary Harriman. The development and preservation of the park is a key part of the American movement of the early 20th century to preserve scenic beauty. The Bear Mountain State Park Historic District is listed on the State and National Registers of Historic Places.

Archeological Resources

In addition to the above-cited historic resources, the New York State Office of Parks, Recreation and Historic Preservation has identified numerous zones of archeological sensitivity within the Town's waterfront area.

C. OVERVIEW OF THE WATERFRONT AREA

The Stony Point riverfront extends for more than 10 miles along the Hudson River, and within these 10 miles the characteristics of the coast varies widely. The waterfront has distinct and readily identifiable areas, defined by land uses, natural features or other shared characteristics. These areas of the waterfront are Bear Mountain State Park, Jones Point, Tomkins Cove, Stony Point Town Center and Grassy Point (see Map 2).

Bear Mountain State Park occupies the northern portion of the waterfront. The Penn Central West Shore Line Railroad tracks and Route 9W run the length of this section of the riverfront. The Bear Mountain Bridge is at the northern end of the park. The land rises sharply above the Hudson River, with the only level land being the wetlands that separate Iona Island from the remainder of the park. Doodletown and Timp Brooks drain from the mountains into these wetlands which are designated as a significant coastal fish and wildlife habitat.

Jones Point lies on a narrow river plain between Bear Mountain Park and the Hudson River. This river plain is barely wide enough to accommodate a railroad right-of-way, some scattered residential development along Route 9W, and a small concentration of homes at Jones Point.

The *hamlet* of Tomkins Cove is centered on Route 9W on a small plateau above the river. The most prominent features of this area is the 200 acre Tilcon Mines quarry operation and Orange and Rockland Utilities, a large power generation plant adjacent to the Hudson River. High tension overhead power lines run through the area and cross the Hudson River to Westchester County. A gas pipeline also crosses the river in Tomkins Cove.

The largely developed area south of Tomkins Cove, with little riverfront land, is essentially the Town Center of Stony Point. Its southern edge drops sharply into the gorge carved by the Cedar Pond Brook. The Penn Central Railroad tracks separate the inland and riverfront development in this area. Stony Point Battlefield Park and several marinas in Stony Point Bay are located here.

The Grassy Point area is somewhat isolated from the rest of Stony Point's waterfront. Grassy Point lies on a flat piece of land, separated from the rest of Stony Point by the tidal marshes of Cedar Pond Brook. The area is a mixture of residential (single family, multi-family and mobile homes), commercial recreation and industrial land uses. Grassy Point is also the location of the Town's sewage treatment facilities and the large U.S. Gypsum plant that has a conveyor extending into the Hudson River.

D. EXISTING LAND AND WATER USES

To improve the clarity of this section of the report, the narrative will be divided into the previously identified waterfront areas: Bear Mountain State Park, Jones Point, Tomkins Cove, Stony Point Town Center, and Grassy Point. These areas are shown on Map 2.

Bear Mountain State Park

This area of the waterfront is entirely within Bear Mountain State Park and covers 5,066 acres and approximately six miles of coastline on the Hudson. The park is part of the Palisades Interstate Park system and is used for a variety of active and passive recreational uses such as hiking, fishing, ski touring and picnicking. The area surrounding the Bear Mountain Inn offers such recreational opportunities as roller and ice skating, swimming, a trailside museum and playing fields.

One of the recreational facilities at Bear Mountain serving a water-dependent use is a boat launch. Although the launch does not receive much public use, it does serve a private excursion vessel which operates during the summer months. The ship leaves from New York City, stops at the Bear Mountain docks, then continues to West Point and Poughkeepsie, where it turns around and returns to New York City, with another stop at Bear Mountain. This water-dependent use is a vital asset providing public access to this area of the waterfront and its use should be continued and supported by this local waterfront revitalization program.

The dominant feature of the Bear Mountain riverfront is Iona Island, a wildlife and bird sanctuary designated a National Natural Landmark in 1975 by the Department of Interior. The island and adjacent marshes are also a part of the Hudson River National Estuarine Research Reserve. In order to visit the island one must first obtain a permit from the research center on site. Scout and school groups camp, nature lovers watch birds, deer and other species, and some visitors are content just to walk the island trails and experience the natural beauty. The southern part of the island continues to be an

overwintering habitat for adult and immature bald eagles. Consequently, these areas are placed off limits to the public for the winter months. The unique opportunity for wildlife viewing makes Iona Island another important water enhanced use of the Bear Mountain State Park riverfront. Because of the permitting process, Stony Point residents rarely take advantage of this spectacular ecological resource. The Palisades Park Commission and the United States Department of Interior should make it easier for Town residents to obtain permits.

Bear Mountain State Park is an asset to Stony Point's waterfront, and an important resource for the entire New York metropolitan area. The park provides a variety of recreational activities, while at the same time maintaining important water-dependent uses. As a designated State Park, the existing land uses are not likely to change in the future. Bear Mountain State Park was created to preserve the natural environment and to make the area accessible to the public. Wildlife viewing and scientific research are appropriate water enhanced uses for Iona Island. Although the boat launch at Bear Mountain is a facility serving an appropriate water-dependent use, i.e., private excursion vessels, the Town of Stony Point and the Palisades Park Commission should attempt to increase resident use of the boat launch site.

Jones Point

This section of the waterfront is a long, narrow, forested piece of land that lies between Route 9W and the Hudson River, just south of Bear Mountain State Park. The land is relatively flat, extending West to Dunderberg Mountain which rises 1000 feet above the River.

The hamlet of Jones Point is comprised mostly of single family homes and is also the location of the unique House of Prayers Church. The condition of the housing at Jones Point varies. There are a few relatively new homes that are in good condition, but many of the older homes are in need of repair. There is also a boat sales yard and a few residences scattered along Route 9W, south of Jones Point.

The trailhead for the Ramapo-Dunderberg trail located at Jones Point provides an access point to Bear Mountain Park. Views of the Hudson River and the secluded nature of the area also attract visitors to this part of the waterfront.

The remaining land use at Jones Point, the Penn Central railroad tracks, follow the course of the River. The tracks immediately adjacent to the Hudson River act as a barrier limiting access to the riverbanks. Little land lies east of the tracks.

Although much of the land at Jones Point appears to be under-utilized, most of it is undevelopable because it is steeply sloped or is owned by the Palisades Interstate Park Commission. There is also currently a proposal for a marina on land adjacent to the existing boat sales yard. Most of the marinas in Stony Point are located at Grassy Point

or in Stony Point Bay, but the lack of developable land along the riverfront has increased the pressure for development in this area. A marina is an appropriate use for the waterfront, but locating a marina at Jones Point is likely to impact the character of the area. A small public boat launch would be a more appropriate use. The existing walking and bike trail should be reconstructed and be more clearly marked.

Tomkins Cove - Quarry

The Tomkins Cove area of the waterfront is a mixture of land uses. A large share of the land in Tomkins Cove (about 238 acres) is used as a quarry by Tilcon Mines and for the Orange & Rockland Power Plant. Both of these uses are located on land adjacent to the Hudson River and have on-site shipping facilities. High tension overhead power lines run through the area and cross the Hudson River to Westchester County. A gas pipeline also crosses the river in Tomkins Cove.

The residential areas of Tomkins Cove are generally located near Route 9W, since most of the land adjacent to the Hudson River is used for the quarry or power plant. A small concentration of older homes occupy a parcel on steeply sloping land between 9W and the quarry (Elm Avenue, Spring and Church Streets). Most of this housing is in need of some general repair. Along Route 9W there is a mixture of forested steeply sloped land, local retail uses (gas station, general store), and single family and multi-family residential structures. Historic Boulderberg Manor, built in 1852, is located in Tomkins Cove and now serves as a restaurant. Relatively new single family homes have been constructed on Lighthouse Court, located between Route 9W and the quarry in the southern area of Tomkins Cove. Deciduous trees adequately buffer noise and views of the quarry operation from the small subdivision. A ridge obstructs a clear view to the river for most residences on this street. Two residences, however, at the end of the cul-de-sac, experience magnificent views. Views to the river are also spectacular from Skinner Court and Freehill Road on the West side of Route 9W.

Most of the usable land in Tomkins Cove has been developed. The remaining vacant land is on very steep slopes. Thus, there is little vacant or under-utilized land in this area of the waterfront, with the exception of the vacant land along Gays Hill Road.

The power plant and quarry dominate the Tomkins Cove areas. Both uses are barriers to public access to the waterfront and negatively impact the visual quality of the waterfront. The quarry and the power plant are water-dependent uses because their proximity to the waterfront is vital to their operation. However, since both the quarry and the power plant are long-term land uses, it is expected that they will remain in operation for years to come on the waterfront. The dominance of the quarry and the power plant will affect the future development of the Tomkins Cove area.

The Tomkins Cove area is also the transition area for the waterfront. The more highly developed sections of the waterfront are south of the cove, while to the north of the cove the waterfront is much less developed.

Most of the homes located on Route 9W enjoy excellent river views, since they are on a plateau 100 feet above the River. The homes on Gays Hill Road are the only residences in Tomkins Cove that view the Hudson at sea level. The homes in Tomkins Cove are predominantly single family detached. Most housing in Tomkins Cove is in fair to good condition with the exception of the housing on Elm Avenue, Spring and Church Streets, where the housing is in poor condition.

Stony Point Town Center

This section of the waterfront is literally the heart of the Town of Stony Point, containing a variety of land and water uses and covering approximately 378 acres.

Stony Point Battlefield Historic Site, an 87 acre park and part of the Palisades Interstate Park system, is located at the northern end of this section of the waterfront. Facilities at the park include a picnic pavilion, a museum, an interpretive trail and a lighthouse. Although this National Historic Site is currently used by local and County schools, i.e., the Boy Scouts and out-of-town visitors, use by Stony Point residents is not what it could be. The Palisades Interstate Park Commission should be encouraged to promote the Historic Battlefield site for Town resident use, and should consider opening the grounds to residents during the off season.

The Penn Central railroad tracks separate the waterfront related uses located on Stony Point Bay from the mostly residential (inland) uses. The older portion of the Town center area is generally located between Main Street and the wetlands immediately north of Tomkins Avenue, and from Route 9W to the railroad tracks. The Town Hall and other municipal services are located in this area, along with the County highway garage/storage facilities. There are also a few local commercial uses, such as a market and restaurants on Route 9W, but commercial uses account for only 5 acres of land. Although some relatively new single family and multi-family housing exists in this area, much of the housing is the oldest in the Town. It appears that a number of the large older homes have been converted into multi-family housing. Most of the housing in this area is in good condition and well maintained.

A new single family subdivision is located in the area between Stony Point Battlefield Park and Tomkins Avenue, and between Route 9W and the railroad tracks. These homes were built in the last 20 years and are well maintained. The steep slopes in this subdivision afford many of its residents a spectacular view of the Hudson River. Residential land uses comprise approximately 140 acres (37 percent) of land in the Town Center area.

The remainder of the Stony Point Town Center area lies between the railroad tracks and Stony Point Bay. This area is a mixture of residential, marinas and commercial uses. The limited amount of residential uses in this area are single family homes clustered along Beach Road. The majority of these homes are in fair to good condition, but in need of some minor repairs. Some of these houses also appear to have private docks on Stony Point Bay. The mixture of commercial uses include a cabinet repair shop, a training center for carpenters, an auto repair shop and a paper supply company.

The marinas and boat repair shops are the main water-dependent uses in this section of the waterfront. Although the seven marinas comprise only 18.8 percent (71.22 acres) of the total land uses in this area of the waterfront, their continued presence will help to shape the future of the waterfront.

The Stony Point Lighthouse, located on the eastern end of Stony Point Battlefield Park, can be considered a water-enhanced use since it is no longer operating. For 100 years since it was built in 1826, the lighthouse helped to ensure the safe passage of river traffic through the narrow channel between Stony Point and Verplancks Point on the east bank of the Hudson. Today, its presence serves to mark an important time in history and adds to the scenic quality of Stony Point Battlefield Park. Although not technically a water-dependent use, Stony Point Battlefield Park can be considered a water-enhanced use, since its location on the waterfront adds to the enjoyment of the park.

Most of the land in the Town Center area is fully utilized. Only 64 acres are vacant and of this, 28 acres are wetlands, which include both tidal and fresh water. In spite of the lack of vacant land and because of its central location, the Town Center area is likely to experience some pressure for development and redevelopment. A large parcel that appears vacant on Map 2, immediately north of Tomkins Avenue, is actually a wetland. The real development potential for this area lies in the vacant and under-utilized land located at the intersection of Main Street and Beach Road, and at the end of Hudson Drive. This prime riverfront site offering spectacular views of the Stony Point Bay and the Westchester Highlands presents a unique opportunity to create a waterfront park. Some of the development potential of this land is limited since it is located adjacent to the railroad tracks, however, its waterfront location makes it more attractive and desirable. Additional vacant and under-utilized land also exists adjacent to the marinas on Hudson Drive (approximately 5 acres). This land offers an opportunity to create a waterfront trail linking the Stony Point Battlefield Historic Site with Hudson Drive and an opportunity to develop a boat launch and or scenic overlook.

Grassy Point

The Grassy Point area stretches from Route 9W to the Hudson River, and from Grassy Point Road to the Town of Haverstraw boundary line. The area contains 407 acres of a variety of land uses; and similar to other areas of the waterfront, Grassy Point is bisected by the Penn Central railroad tracks.

West of the railroad tracks, development is concentrated along Route 9W. Restaurants, offices and a shopping center, comprising almost 14 acres of land, makes this the most heavily commercial area in Stony Point. There are also some residential land uses in this area, with most of it concentrated in the fairly new and well maintained single family subdivision on Hoke and Slater Drives. The Stony Point Town Park (16 acres), which lies at the bottom of a gorge carved by Cedar Pond Brook, is also located in this area. Immediately north of the Town of Haverstraw line, on Route 9W, is a new industrial park, which accounts for 34 acres of the industrial land use in this area of the waterfront.

East of the railroad tracks is the area recognized by Town residents as Grassy Point. The Grassy Point area is dominated by U.S. Gypsum, a 65 acre complex, comprising 65% of the industrial land use in Grassy Point. The second dominant feature are the wetlands of the Cedar Pond Brook, which separates Grassy Point from the rest of Stony Point. The Town's sewage treatment plant is also located at Grassy Point. Although dominated by U.S. Gypsum, the residential land uses define the community of Grassy Point. There is a 12 acre trailer park located between the railroad tracks and the meandering Cedar Pond Brook. This trailer park also has a semi-public dock, a boat launch and a boat repair shop fronting on Cedar Pond Brook. The remainder of the housing in Grassy Point is a mixture of single family, multi-family and mobile homes located along Grassy Point Road and in the area between the sewage treatment plant and the Hudson River. Residential land use only accounts for 7% of the total land use in this area. Much of the housing in Grassy Point is fairly old and is in need of some major and/or minor repairs. Several structures on Grassy Point Road could be eligible for listing on the National Register of Historic Places.

The main water-dependent uses in Grassy Point are the Minisceongo Boat Club, located on Stony Point Bay, and the nearby private marina and boat sales yard. The site of U.S. Gypsum is also a water-dependent use since it has shipping facilities on the Hudson River that benefit from its waterfront location.

The wetlands of Cedar Pond Brook comprise much of the vacant land in Grassy Point, although there is some vacant land along Route 9W which is likely to be developed for commercial uses in the future. There are also some vacant parcels, and what can generally be considered under-utilized land, on the eastern end of Grassy Point Road and along River Road. The waterfront location, significant views and environmental resources make this land attractive for public recreational development. It is one of the few areas in the Town of Stony Point where opportunities to increase public access to the waterfront exist. Every effort should be made to protect the limited waterfront property from commercial or residential development and preserve it for public recreational use.

E. NATURAL RESOURCES

Geological Information

More than 75% of the Town is underlain by precambrian granite, gneiss, schist and intrusive rocks. These bedrock types comprise the Ramapo Mountains and the foothill areas adjacent to them. A band of precambrian and ordovician rock, consisting of quartzite, dolomite, limestone, shale and phyllite runs parallel to Thiells Road and Wayne Avenue, ending at the Hudson River. The remaining area of the Town, where substantial development has taken place, is underlain by triassic (Newark group) strata composed of sandstones, shales and conglomerates. These bedrock formations are overlain by varying layers of glacial comprised of sand, gravel and clays.

Soils

Soils occur in characteristic patterns on the landscape. Knowledge of these patterns and the development limitations associated with each soil type is invaluable in long-range, as well as current, planning. For example, it can be readily determined in which areas bedrock is shallow, subsurface drainage is impeded or where granular material for construction is most likely to be found.

The following is a list of the major soils found within and around the waterfront boundary, as well as a description of the geographical location and the development limitations of each soil:

1. Otisville Gravelly Sand Loam

This soil is excessively drained to well-drained sandy and gravelly developed in low-lime glacial outwash or beach deposits. It is dominated by granitic and sandstone materials, with a surface layer of four to six inches thick. The underlying material is usually not stratified, and the proportion of sand to gravel is highly variable. In the generally level areas, the surface layer may be as much as ten or twelve inches thick containing a high percentage of very fine sand and silt. Otisville Gravelly Sand Loam is found in the following areas of the Town: north of Cedar Pond Brook and east of Route 9W in the older residential area of Town, and along Beach Road and Tomkins Avenue.

Use Limitations:

Septic Tank Effluent:	Slight
Erosion Hazard:	Slight
Runoff Potential:	Slight
Depth of Bedrock:	10 ft. +

2. Swartswood Loam

This soil can be characterized as deep, brown, well-drained loam developed in low-lime glacial till dominated by granitic material with some basalt and sandstone. At depths of two to four feet, the material ranges from slightly to extremely firm and is variable within short distances. This firm layer may extend to depths of six feet or more.

Swartswood loam is found in the following three areas in or around the Stony Point waterfront boundary:

- A narrow strip along Thiells Road and the area east of Reservoir Road, north of Route 210, and south of Old Route 210.
- The area around the Stony Point Elementary School lying south of Hastings Lane, west of Route 9W and north of Ten Eyck Street.
- The mountain crest and southern slope area of Collaberg Mountain.

Use Limitations:

Septic Tank Effluent:	moderate on 0-15% slopes (due to soil permeability)
Erosion Hazard:	moderate on 0-15% slopes severe on 15+% due to soil texture)
Depth to Bedrock:	10 feet +

3. Wethersfield Loam

This soil is characterized as deep well-drained loam or silt loam developed in low-lime glacial till dominated by sandstone with a small percentage of granite. At depths of two to four feet, the consistency of material ranges from slightly firm to extremely firm. This firm layer extends to depths of six feet or more. However, within some of the wethersfield areas the sandstone bedrock is from three to six feet below the surface.

This soil is found in the area bordered by Thiells Road on the west, Central Drive on the north and Route 9W on the east.

Use Limitations:

Septic Tank Effluent:	moderate on 0-15% slopes severe on 15+%slopes (due to soil permeability)
Erosion Hazard:	moderate on 0-15% slopes severe on 15+%slopes (due to soil permeability)
Runoff Potential:	moderate on 0-15% slopes severe on 15+% slopes (due to soil texture)
Depth to Bedrock:	10 feet +

4. Charlton Extremely Stony Loam

This soil is characterized as being extremely stony, deep, well-drained sandy loam developed in low-lime glacial till dominated by granitic materials.

This soil is found in the following four major areas within and around the waterfront boundary:

- The Lake Boyce and Tomkins Cove area west of Route 9W.
- A narrow belt running along Buckberg Road to Tomkins Lake and then heading east along Mott Farm Road to Route 9W.
- The Crickettown Road area north of Route 210 and south of Wayne Avenue.
- On the corner of Beach Road and Main Street.

Use Limitations:

Septic Tank Effluent:	severe (due to stoniness)
Erosion Hazard:	moderate to severe (due to slope)
Runoff Potential:	moderate to severe (due to slope)
Depth to Bedrock:	4 to 10 feet

5. Hollis Fine Sandy Loam

This is a shallow, well-drained to excessively drained sandy loam soil developed in low-lime glacial till dominated by granitic materials. Bedrock outcrops occur in 2% to as much as 50% of the surface. Although bedrock is usually within

twenty inches below the surface, there are some areas where the bedrock is considerably deeper. This soil is found in the following two locations within and around the waterfront boundary:

- The area east of Buckberg Road, south of Mott Farm Road, extending to the Hudson River.

- A narrow belt which stretches from Bulsontown Road, along Wayne Avenue, to Route 9W.

Use Limitations:

Septic Tank Effluent:	severe (due to bedrock)
Erosion Hazard:	moderate on 3-15% slopes severe on 15+% slopes (due to texture and slope)
Runoff Potential:	moderate on 3-15% slopes severe on 15-35% slopes (due to texture and slope)
Depth to Bedrock:	10 to 20 inches

6. Hollis Extremely Rocky Soil

Although similar to the Hollis fine sandy loam described above, the rock fragment of this soil is much higher. This soil is found throughout Buckberg Mountain, the Palisades Park, and in the area of Blanchard Road and south of Gate Hill Road.

Use Limitations:

Septic Tank Effluent:	severe (due to slope,bedrock and surface rockiness)
Erosion Hazard:	moderate to severe (due to texture and slope)
Runoff Potential:	moderate to severe (due to texture and slope)
Depth to Bedrock:	10 to 20 inches

7. Tidal Marsh Soils

This soil is flooded most or all of the year. The depth of water on this soil fluctuates in direct relation to the tides of the river. The soil material is very silty with a thin deposit of decayed or decaying organic material on the soil surface.

The tidal marsh is found adjacent to the Hudson River in an area bounded by Grassy Point Road, Route 9W, and the Town of Haverstraw.

Use Limitations:

Septic Tank Effluent:	severe (due to water table and flooding)
Erosion Hazard:	slight
Runoff Potential:	severe (due to water table)
Depth to Bedrock:	10 feet

8. Fresh Water Marsh Soils

This soil is flooded most or all of the year as it receives runoff water from the surrounding uplands. The depth of water is shallow enough to enable water-tolerant plants, such as reeds and sedges to thrive. The soil is composed predominantly of silt and clay. A thin surface layer of organic material is present below the water.

This soil condition is found around Ambrey Pond in the area bounded by Cedar Flats Road and Bulsontown Road.

9. Cut-and-Fill Land

These lands consist of areas that may have been marshes, borrow pits for clay, sand, gravel or other soil material, refuse, rubble or any combination of these. The extent of filling or cutting has made it impossible to determine accurately the original nature of the land, since each site is unique in the depth and nature of the fill material, all development must be preceded by a thorough soil analysis of the soil properties.

Cut-and-fill land is found around Grassy Point, along Munn Avenue, Beach Road and Tomkins Cove.

10. Made Land

Made land is found in areas where there has been extensive disturbance by man. The original soil and slope characteristics are no longer identifiable. Cuts of four to ten feet or more have been made on the higher terrain. Lowlands along the riverfront have been filled with soil, rubble or other solid waste.

Generalizations as to the buildability of these lands cannot be made, since they are quite variable and must be examined carefully prior to development. A 500 feet wide strip of land, which includes Hudson Drive, is made land.

Flood Problems and Hazard Areas

The Town of Stony Point is presently subject to flooding from the Hudson River, Cedar Pond Brook and a tributary to Cedar Pond Brook. The area southwest of Stony Point Battlefield Park has existing development and extensive flooding problems from the Hudson River. To help control flooding, in 1950 the County erected a seawall parallel to the beach on River Road. However, extensive flooding is still a serious problem along the remainder of the Stony Point waterfront, particularly along Beach Road. Within the past decade Beach Road has flooded at least three times a year. Cedar Pond Brook has no serious flooding problems since it has very steep side slopes, except in the areas east of Route 9W, where Cedar Pond Brook has a wide flood plain. Flooding occurs along the entire length of tributary to Cedar Pond Brook due to the high run-off caused by the considerable development of the surrounding areas.

The Federal Emergency Management Agency (FEMA) has prepared a Flood Hazard Boundary Map for the Town of Stony Point, entitled "Special Flood Hazard Areas and Drainage Basins." Most of the flood hazard area is located west of the Conrail railroad tracks along the adjacent shore of the Hudson River. This flood hazard area broadens at Grassy Point near the marsh formed by the confluence of the Cedar Pond Brook and the Minisceongo Creek and extends for approximately 2,000 feet upstream of the Cedar Pond Brook on the east side of the railroad tracks.

Flood Protection Areas

Flood protection includes a program to maintain stream channel and culvert capacities through debris and deposition removal. An amendment to the Town zoning ordinance restricts development in areas designated as flood hazard areas and flood damage protection regulations as of March 1987. In addition, the Town Planning Board may require the construction of detention basins in subdivision, if necessary, to control higher rates of run-off from developed areas. Natural drainage basins occurring in the area also function as flood control mechanisms. Map 1 illustrates the location of designated flood protection areas in the Town of Stony Point.

Drainage Basins

The rolling and hilly topography of the Town of Stony Point contains parts of nine separate drainage basins which are part of the larger Hudson River Drainage Basin. Flood hazard areas and drainage basins are described below, as are general conditions of slope in each basin.

- Cedar Pond Brook Basin

  This basin drains about 14 square miles of the western and central portions of the Town plus a small part of Orange County. The highest average slopes exist in the northeast and central parts of the basin where slopes are generally 30%, while in the western portion slopes moderate between 8% and 24%. Cedar Pond is the main stream in this basin with approximately 32.3 miles of tributary streams.

- Minisceongo River Basin

  This basin drains the southwestern part of the Town in the area of Letchworth Village and Willow Grove Road. Its principal stream is the Minisceongo River which flows in an easterly direction from Lake Welch for about 14.6 miles to the Hudson River.

- Doodletown Brook Basin

  Located almost entirely in the Palisades Interstate Park in the northern part of the Town, this basin comprises approximately 2.7 square miles of Rockland County and 0.2 square miles of Orange. Most of the slopes of the basin are very steep, ranging from 35% to 40%. Doodletown Brook is the principal stream of this basin; it originates in a valley north of Seven Lake Drive and flows to the Hudson.

- Beechy Bottom Brook Basin

  Located in the extreme northwest part of the Town in Harriman State Park, this basin contains 1.4 miles of undeveloped area which drain into the Hudson River via Beechy Bottom Brook and Hell Hole in Orange County. Maximum slopes of 35% are found near the East Ridge, while a narrow band of flat land (3%) is located along the stream valley line.

Coastal Drainage Areas

The Town is divided into the following four coastal drainage basins which empty into the Hudson River via minor streams and sloped areas:

- Bear Mountain - Doodletown Basin. Located entirely in the Palisades Park, this basin drains approximately 0.67 square miles to the Hudson via one small stream.

- Iona Island - Stony Point Basin. Seven small streams drain the 4.4 miles of this 6-mile-long basin which runs from Stony Point Battlefield to Iona Island.

- Stony Point - Grassy Point Basin. Sloping Island drains this .91 square mile area into the Hudson River.

- Cedar Pond Brook - Minisceongo Creek Coastal Basin. This basin drains the extreme southeast tip of the Town to the tidal marsh area of the Hudson River.

Wetlands

Surface waters are contiguous with most of the inland freshwater wetlands of the Town. Wetlands are defined by the New York State Department of Environmental Conservation (NYSDEC) in Part 662.1 of the State of New York Codes, Rules and Regulations as lands which support certain types of vegetation commonly found in wetlands areas and land which has been flooded for long periods of time. Common names for these areas include bogs, swamps, marshes or wet meadows. The NYSDEC has classified wetlands along the Hudson River that are located north of the Tappan Zee Bridge as freshwater wetlands. The NYSDEC endeavors to protect these wetlands by controlling their alteration and use by a program of interim permits.

NYSDEC, however, only regulates activities within wetlands which are at least 12.4 acres in size. The Town of Stony Point amended its local freshwater wetlands protection law in February of 1993 to regulate activities within wetlands which are between 1 acre and 12.4 acres in size. A copy of the Town's Freshwater Wetlands Ordinance is attached as Appendix D.

Wetlands serve as a habitat for a wide diversity of wildlife, as well as plant flora. Tidal marsh land is valuable due to its ability to filter pollutants from water flowing through it. The NYSDEC has developed a mapping program which produced freshwater wetlands overlays for most of the State.

Most of the wetlands within the immediate study area are located at the confluence of Cedar Pond Brook and Minisceongo Creek at Grassy Point and immediately upstream of both of these water courses. These freshwater creeks share this common delta and

form the Grassy Point and Haverstraw Marshes before joining the Hudson River under the Penny Bridge at Ba-Mar Marina.

The NYSDEC has identified wetlands near Stony Point Battlefield Park, near the sewage disposal plant at Grassy Point, and in an area adjacent to Iona Island called Salisbury Meadow and Ring Meadow (see general locations of official NYSDEC Wetlands, Map 3).

Grassy Point Marsh, over 80 acres, extends from the Town of Haverstraw landfill to Stony Point Park. This marsh, a unique wildlife sanctuary and habitat, is nestled amidst the industrial sounds of U.S. Gypsum and Kay-Fries Chemical Company. The meandering fresh water Cedar Pond Brook that winds through the marsh combines fresh water and salty Hudson River water into an unusual estuarine environment and a vast marine laboratory. It is a nesting and feeding ground for many rare and widely known plant and animal species. The waterfowl species, both local and migratory, include black ducks, mallards, herons, ruby-throated hummingbirds, and a family of swans. Kingfishers, blue crabs, muskrats and butterflies also breed in the area. In the flushing process of the marsh, nutrients are pushed into Haverstraw Bay, where striped bass fingerlings feed.

Other fish that are commonly found in this part of the Hudson River estuary are sea sturgeon, sand sharks, perch, pipefish, black bass, tom cod, butterfish, bluefish, menhaden anchovies, American sole, trout and carp. This diversity of species makes the Grassy Point Marsh a very important and significant ecosystem.

Emergents are the predominant cover type vegetation in this marsh. These include cattails, reeds, pickerel weed, marsit mallow, cardinal flower, ostrich fern, water hemp, jewel weed, cutgrass, and sweet flag. Strands of wild rice also thrive in the marsh, one of only two such areas along the Hudson River.

<u>Fish and Wildlife Resources - Significant Coastal Fish and Wildlife Habitats</u>

As part of the New York State Waterfront Revitalization of Coastal Areas and Inland Waterways Act, the Department of State is directed to designate (and protect) coastal fish and wildlife habitats which, because of their recreational, commercial or ecological value, are important to residents of coastal communities in the State.

The Department of Environmental Conversation and the Department of State have jointly developed an evaluation system to screen and identify significant coastal fish and wildlife habitats throughout the State. What follows are the preliminary significant coastal fish and wildlife habitats that have been identified for Stony Point, and a narrative describing these sites. Locations are shown on Exhibits II-A through II-D, found at the conclusion of the Inventory and Analysis.

Hudson River Mile 44-56

Hudson River Mile 44-56 extends roughly from Cornwall Bay to Peekskill Bay, in the Towns of Cornwall and Highlands, Orange County; Stony Point, Rockland County; Philipstown, Putnam County; and Cortlandt, Westchester County (7.5' Quadrangles: West Point, N.Y.; and Peekskill, N.Y.). The fish and wildlife habitat encompasses all of the main river channel below mean low water over an approximate twelve mile reach. This area is a very narrow and deep (up to 200 feet deep) section of the Hudson River, with strong currents and a rocky bottom substrate. During spring and early summer, surface salinity in the area is almost always less than one part per thousand, i.e., essentially freshwater. During late summer and fall, however, salt intrusion often extends upstream beyond River Mile 56. The land area bordering Hudson River Mile 44-56 is predominantly steep, rocky hillsides, with a variety of land uses, including undeveloped forestland (e.g., Storm King, Bear Mountain, and Hudson Highlands State Parks), small urban centers, and the West Point Military Reservation. In addition, Penn Central railroad tracks closely follow the shoreline on both sides of River Mile 44-56. The habitat also includes most of Iona Island, which is part of the Hudson River Estuarine Sanctuary.

Fish and Wildlife Values of Hudson River Mile 44-56 --

Hudson River Mile 44-56 is one of several relatively long reaches of river channel that are very deep and narrow, with strong currents and rocky substrates. It is the most extensive area of this habitat type in the Hudson River, and contains the majority of deep water (and greatest maximum depth) in the entire Hudson estuary. River flows in this segment are considerably larger than in upstream narrow areas, because of the additional input of three major tributaries (Wappinger, Fishkill, and Moodna Creeks, none of which are in Stony Point). This area is also significant because it is the southernmost extent of essentially freshwater in the Hudson River estuary during fish spawning periods.

The combination of rocky substrates, swift currents, and freshwater (during spring runoff) over this large area provides highly favorable conditions for reproduction by anadromous fishes, especially striped bass and white perch. Deep turbulent areas appear to be primary spawning habitat for striped bass, and according to both historical and recent data, River Mile 44-56 is the most important spawning area for this species in the Hudson River. In recognition of this, much of the area has restrictions on operation of gillnets to protect the spawning population. Generally, these two species enter the area to spawn in May and June; the adults leave the area shortly after spawning, and within several weeks, the eggs have hatched, and larval fish begin moving downstream to nursery areas in the brackish portion of the Hudson River.

Although the commercial fishery for striped bass in the Hudson River was closed in 1985 due to high contaminant (PCB) levels, River Mile 44-56 contributes significantly to commercial and recreational fisheries throughout this migratory range. Striped bass stock

discrimination studies conducted in coastal New York and Southern New England indicate that approximately 50% of striped bass harvested in these fisheries were of Hudson River origin, the remainder primarily originating from the Chesapeake Bay system. With the documented poor Chesapeake production from 1983-1985, it is anticipated that the relative contribution of the Hudson stock to the coastal migratory striped bass population will continue to rise above 50%.

Deep water areas such as Hudson River Mile 44-56 are also used by concentrations of species which spawn elsewhere in the Hudson River estuary. Deep areas are used as migrational routes by Atlantic sturgeon and shortnose sturgeon, and may be important nursery areas for these species. As the salt front moves through this area, a variety of marine species, such as bluefish, anchovy, silversides, hogchoker, and blue claw crab may also enter the area. The concentrations of anadromous and marine fishes occurring in the Hudson River Mile 44-56 attract significant recreational fishing pressure within the area, attracting visitors from throughout the lower Hudson Valley. Associated with the fisheries resources in the Hudson River Mile 44-56 is a significant concentration of wintering bald eagles. Apparently, upwellings along the river shoreline bring fish concentration near the surface, and because this area rarely freezes it provides a dependable prey base for these birds. Bald eagles have been reported in this area since at least 1981, with as many as 10 occurring here at one time. Winter residence in the area generally extends from December through March. These birds feed throughout River Mile 44-56, and Iona Island is a primary roosting area; the latter has been designated as an eagle sanctuary by the Palisades Interstate Parks Commission. Other roosting areas include undisturbed woodlands along both sides of the river, especially near sheltered coves. Fish species commonly taken by the wintering eagles include goldfish, brown bullhead, alewife, white perch, and sunfish.

Impact Assessment --

Any activity that would substantially degrade water quality, reduce flows, alter tidal fluctuations, or increase water temperatures in Hudson River Mile 44-56 could adversely affect fish and wildlife resources of this area. Of primary concern in this deep estuarine area would be diversion of freshwater flows out of the Hudson, contamination by toxic chemicals, major structural alternations to the underwater habitat (e.g., dredging, filling, or construction or jetties), and thermal discharges. All species of fish and wildlife may be adversely affected by water pollution, such as chemical contamination (including food chain effects), oil spills, excessive turbidity or sedimentation, and waste disposal. Transient habitat disturbances, such as dredging or in-river construction activities, could have significant impacts on striped bass population during spawning and incubation periods (May-July, primarily). Installation and operation of water intakes could also have significant impacts on fish populations in the area, through impingement of juveniles and adults, or entrainment of eggs and larval stages. The potential effects of human disturbance, especially pedestrians, on wintering bald eagles are not well documented, but should be minimized around known roosting and feeding areas. It is essential that

activities in the vicinity of Iona Island also be evaluated with respect to its use for environmental research and education, and the need to maintain natural or controlled experimental conditions.

Iona Island Marsh

Iona Island Marsh is located between Iona Island and the west shore of the Hudson River, approximately three miles northwest of the City of Peekskill, in the Town of Stony Point (7.5' Quadrangle: Peekskill, N.Y.). The fish and wildlife habitat is an approximate 270 acre, freshwater to brackish, tidal wetland, dominated by narrow-leaved cattail. Non-vegetated tidal flats, subtidal aquatic beds, and rocky uplands also occur in the area. Tidal creek channels meander through the marsh, but account for a very limited amount of open water. Iona Island Marsh receives freshwater inflows from Doodletown Brook, a small, high gradient, stream. Parts of Iona Marsh are locally known as Salisbury Meadow, Ring Meadow, and Snake Hole Creek. The marsh is hydrological connected to the Hudson River through openings in the railroad at each end of Iona Island. The land area surrounding Iona Island Marsh is steep, rocky, undeveloped, forestland, subject to limited human disturbance. Principal habitat disturbances in the area are limited to traffic on Route 9W and the Conrail railroad tracks (which parallel the western and eastern boundaries of the area, respectively), and recreational activities on Iona Island, including the use of a man-made causeway for access to the island. This causeway bisects the marsh, but flow of tidal water is accommodated by culvert pipes which run under the road. Iona Island Marsh is located within Bear Mountain State Park, and is owned by the Palisades Interstate Park Commission.

Fish and Wildlife Values of Iona Island Marsh --

Iona Island Marsh is one of the largest, undeveloped, tidal wetlands on the Hudson River. The predominant ecological communities in the area, i.e., tidal marshes and flats, are among the most valuable fish and wildlife habitats in the Hudson Valley. The ecological importance of Iona Island Marsh has been recognized in several formal designations: it is one of four sites comprising the Hudson River Estuarine Sanctuary, an area dedicated to environmental research and education; and, it is registered as a National Landmark with the U.S. Department of the Interior.

Iona Island Marsh is a highly productive wetland with minimal human disturbance, and provides favorable habitats for a variety of fish and wildlife species. The marsh is especially important for marsh-nesting birds. Probable or confirmed breeding species include green-backed heron, least bittern (SC), Canada goose, mallard, wood duck, Virginia rail, sora, common moorhen, spotted sandpiper, belted kingfisher, marsh wren, red-winged blackbird, and swamp sparrow. Concentrations of herons, waterfowl, osprey (T), and shorebirds also occur in Iona Island Marsh during spring (March-April) and fall (September-November) migrations, but the extent of use by these birds has not been

documented. Other resident wildlife species in the area include muskrat, mink, snapping turtle, northern water snake, and green frog. Shallow bay areas and creek channels in Iona Marsh provide spawning and nursery habitats for a variety of anadromous and resident freshwater fishes. Species found in the area include alewife, blueback herring, white perch, stripped bass, banded killifish, and mummichog. In addition to fish and wildlife values, the rocky islands bisected by the causeway contain fragile strands of walking fern and prickly pear cactus, two usual plant species in upstate New York.

The diversity and abundance of wildlife species in Iona Island Marsh are unusual in the lower Hudson River. Opportunities for birdwatching, along with recreational fishing, and informal nature study, attract a substantial number of Rockland County residents to the area. In 1947, the Palisades Interstate Park Commission designated the marsh a bird sanctuary. More important, however, is that designation of Iona Marsh as an Estuarine Sanctuary will focus research and education activities in the Hudson Valley on this area.

Impact Assessment --

It is essential that any potential impacts on Iona Island Marsh be evaluated with respect to its use for environmental research and education, and the need to maintain natural or controlled experimental conditions. Any activity that would substantially degrade water quality, increase turbidity or sedimentation, reduce freshwater inflows, or alter tidal fluctuations in Iona Island Marsh could adversely affect fish and wildlife species in the area. Application of herbicides or insecticides along the railroad right-of-way may result in adverse impacts on various fish and wildlife species, and should be avoided. Elimination of wetland or shallow areas, through dredging, filling, or bulkheading, would result in a direct impact on valuable fish and wildlife habitats. Potentially, the Conrail railroad tracks could affect the hydrodynamics of this wetland, through changes in the causeway, bridges, and number of tracks. Likewise, any alteration of the access road to Iona Island should be designed to maintain or enhance natural tidal flows in the marsh. Activities that would subdivide this relatively large, undisturbed area into smaller fragments should be restricted. However, habitat management activities, including expansion of productive littoral areas, may be designed to maintain or enhance populations of certain fish or wildlife species. Existing areas of natural vegetation bordering Iona Island Marsh should be maintained for their value as cover, perch sites, and buffer zones; significant human encroachment into the adjacent area could adversely affect certain species of wild life. It is recommended that rare plant species occurring in the area be protected from adverse effects of human activities. Strict management of public access may be necessary to ensure that the various human uses and fish and wildlife resources in the area are compatible.

Haverstraw Bay

Haverstraw Bay extends approximately six miles on the Hudson River, from Stony Point to Croton Point, in Rockland County, and the Town of Cortlandt, in Westchester County (7.5' Quadrangle; Haverstraw, N.Y.; NOAA Chart No. 12343). This fish and wildlife habitat encompasses the entire river over the six mile reach, which is the widest section of the Hudson Estuary. Haverstraw Bay has extensive shallow areas (less than 15 feet deep at mean low water). These areas deepen to a navigation channel (which is dredged to maintain depth of about 35 feet) in the western half of this habitat. During much of the year, this is the place where freshwater from the upper river mixes with salt water from the Atlantic. Thus, brackish water habitats with salinities varying from 0-10 parts per trillion. The land surrounding Haverstraw Bay supports a variety of land uses, including industrial, commercial, residential, and recreational developments. Although a considerable amount of undeveloped forestland still remains, habitat disturbances, such as dredging, shoreline filling and bulkheading, waste disposal, and pollution from upland and in-river sources, have all been significant at one time during the recent history of this area.

Fish and Wildlife Values of Haverstraw Bay --

Despite various habitat disturbances, Haverstraw Bay possesses a combination of physical and biological characteristics that make it one of the most important fish and wildlife habitats in the Hudson River Estuary. The regular occurrence of brackish water over extensive areas of shallow bottom creates highly desirable, if not essential, conditions for biological productivity within the estuary, including submergent vegetation, phytoplankton and zooplankton, aquatic invertebrates, and many fish species. Although the location of the salt front varies annually (and seasonally), Haverstraw Bay regularly comprises a substantial part of the nursery area for striped bass, American Shad, White Perch, Tomcod and Atlantic Sturgeon that originate from the Hudson. Other anadromous species, such as Blue Back Herring and Wildlife spawn in upstream freshwater areas, but move south and concentrate in this area before leaving the river in the fall. Haverstraw Bay is also a major nursery and feeding area for certain marine species, most notably Bay Anchovy, Atlantic Menhaden, and Blue Claw Crab. Depending on location of salt front, a majority of the spawning and wintering populations of Atlantic Sturgeon in the Hudson may reside in Haverstraw Bay. Shortnose Sturgeon usually stay in this area in winter as well.

Haverstraw Bay is a critical habitat for most estuarine-dependent fisheries originating from the Hudson River. This area contributes directly to the production of in-river and ocean populations of food, game and forage fish species. Consequently, commercial and recreational fisheries through the North Atlantic depend on, or benefit from, this biological input from the Hudson River Estuary.

Impact Assessment --

Any activity that would substantially degrade water quality, increase turbidity or sedimentation, or alter water salinity or an increase in temperatures in Haverstraw Bay would adversely affect the fish and wildlife resources of this area. Any physical modifications of the habitat or adjacent wetlands, through dredging, filling or bulkheading, would result in a direct loss of valuable habitat area. Habitat disturbances of resident anadromous species would be most detrimental during fish spawning and early development periods which extend from April through August. Discharges of sewage or stormwater runoff containing sediments or chemical pollutants may result in significant adverse impacts on fish populations. Spills of oil or other hazardous substances, and leachate of contaminated groundwater, also constitute a potential threat to fish and wildlife in Haverstraw Bay.

The potential impacts due to hydrologic disturbances, and effluent discharges are of particular concern in this estuarine system. Existing natural vegetation bordering Haverstraw Bay should be maintained to stabilize soil as well as provide a physical buffer. However, in order to provide opportunities for compatible human uses of the significant fish and wildlife resources, a limited amount of additional public access may be desirable.

Biota

The Town of Stony Point has a rich and varied composition of terrestrial biota in the outer peripheral areas, especially in the Palisades Interstate Park System. Human occupation of the Town proper and those areas in the immediate, existing service area, have limited the extent of wildlife and terrestrial flora in these areas. The New York State Department of Environmental Conversation has no record of sightings of any endangered species within the Town. However, the large wetland area south of the Town of Stony Point at the confluence of Cedar Pond Brook and the Minisceongo Creek may be a potential bog turtle habitat; the vegetative characteristics of these wetlands must first be investigated further by the NYSDEC.

F. AIR AND WATER QUALITY AND INACTIVE HAZARDOUS WASTE SITES

Water Quality Standards for the Hudson River

The Hudson River is the dominant water course in the Town of Stony Point. The river is a partially stratified estuary with hydrodynamics characterized by river geometry, freshwater inflow, tidal motion and a density induced circulation. Stony Point Bay and Haverstraw Bay lie immediately offshore from the Town.

The Hudson River has been classified for water quality standards by two separate governmental agencies - the Interstate Sanitation Commission (ISC) and the New York

State Department of Environmental Conservation (NYS DEC). NYS DEC requirements are more stringent than ISC standards and are directly applicable to the study area.

Interstate Sanitation Commission - This three-state commission sets standards for Hudson River waters. Hudson River Water is rated Class A and has the following requirements: designated use in recreation shellfish culture and development of fish life. The ISC requirements for treatment of sewage discharged into Class A waters are less stringent than NYS DEC requirements.

NYSDEC has classified the reach of the Hudson River adjacent to Stony Point as SB, used for primary and secondary contact recreation and any other use except the taking of fish for market purposes.

Water quality standards for particular constituents for SB waters are as follows:

Total Coliform	2400/100 ML
Fecal Coliform	200/100 ML
Dissolved Oxygen	5.0 ML

Rivers, streams and lakes in the planning area have been classified for water quality by NYSDEC. These waterways and their classifications are listed below:

Name	Description	Class	Standard
Cedar Pond Brook	Tidal Portion	I	I
	Freshwater Portion	D	D
Minisceongo Creek	Tidal Portion	I	I
	Freshwater Portion	D	D
	of Lower Marsh	D	D
Stony Point Reservoir		A	A
Horse Chock Brook	From Mouth (Minisceongo Creek) to First Reservoir	D	D

Class "A" Waters

Best usage of water: Source of water supply for drinking, culinary or food processing purposes and any other usages.

Conditions related to best usage of waters: The waters, if subjected to approved treatment equal to coagulation, sedimentation, filtration and disinfection, with additional

treatment if necessary to reduce naturally present impurities, will meet New York State Department of Health drinking water standards and will be considered safe and satisfactory for drinking water purposes.

Class "D" Waters

Best usage of waters: the waters are suitable for fishing. The water quality shall be suitable for primary and secondary contact recreation even though other factors may limit the use for the purpose. Due to such natural conditions as intermittency of flow, water conditions not conducive to propagation of game fishery or stream conditions, the waters will not support fish propagation.

Conditions related to best usage of waters: The waters must be suitable for fish survival.

Class "I"

Best usage of waters: The waters shall be suitable for secondary contact recreation and any other usage except for primary contact recreation and shellfishing for market purposes.

Quality standards for Class "I" waters:

Item	Specifications
Garbage, cinders, ashes oil sludge, or other refuse	None in any waters of the marine district as defined by Environmental Conservation Law (17-0105)

Air Quality

Air quality of the Town of Stony Point is maintained under standards put forth by the NYSDEC. Rockland County has been divided into air quality priority levels which indicate the potential for air pollution in a given area of the State. The land uses associated with these classification levels are listed below:

Level I - mostly used for agricultural crops, timber, dairy farming or recreation. Habitation and industry sparse.

Level II - predominantly single and two-family residences, small farms and limited commercial services and industrial development.

Level III - densely populated, primarily commercial office buildings, department stores and light industries in small and medium metropolitan complexes or suburban areas of limited commercial and industrial development near large metropolitan complexes.

Level IV - densely populated, primarily commercial office buildings, department stores and industries in large metropolitan complexes or areas of heavy industry.

Areas classified as Level III are found east of Route 9W in the Town. Level II is found between Route 9W and the boundary of Palisades Interstate Park. Level I includes the entire Park system and western half of the Town.

Inactive Hazardous Waste Sites

There are two inactive hazardous waste sites located along Stony Point's waterfront: the Lovett Gas Regulation Station (Lovett) in Tomkins Cove, and the Kay Fries site just off Route 9W in Stony Point.

The Lovett site consists of a 0.5 acre lagoon where, prior to 1981, condensate containing PCB was discharged to the ground surface where it subsequently percolated into the soil. Soil samples have revealed PCB contamination in the range of 500 ppm. The site has been cleaned up by Orange and Rockland Utilities.

The Kay Fries site consists of a 20-acre area where wastes associated with a chemical manufacturing plant were disposed of by open burning, permitted incineration and discharge into the Minisceongo Creek. These practices were associated with a time period beginning in 1930 and ending in the mid-1960s. The hazardous wastes identified at the site are benzene, methyl-ethyl-ketone and methyl-isobutyl-ketone.

In addition, the Haverstraw Village Landfill and the Hi-Tor Industrial Park are located in the Town of Haverstraw, just south of Stony Point. The Haverstraw Village Landfill is located along Grassy Point Road and consists of a 40-acre sanitary landfill operated from 1969 to the present. Hazardous waste deposition has not been confirmed at the site, though industrial waste and industrial sludge is suspected to be present. The site is currently operating with a Part 360 Municipal Waste Permit, and the NYSDEC has requested the Town to cease operating on the site.

The Hi-Tor Industrial Park consists of a 2½ acre open dump operated by U.S. Plastics from 1959 to 1971. Methyl methacrylate was manufactured at the site from scrap plastic. Chemical waste from the manufacturing operations was stored on site in slop tanks. On April 29, 1983, the new owners excavated the tanks and spilled the chemical sludge onto the ground. This caused severe odor problems in the area. A consent order was executed for a field investigation and monitoring wells have been installed.

Approximately 40 cubic yards of sludge and contaminated soil were removed 5/31/83 by owner. Groundwater contamination has been suspected. Field investigation reports have been submitted and approved. Recent inspections of this site by NYS DEC and Rockland County Health Department staff have indicated that the monitoring wells for this site may be damaged and additional drums of unknown contents may be on site. A Phase II

investigation is in progress. Hazardous waste confirmed at the site include methyl methacrylate, phenol, lead, benzene, ethylbenzene and chlorobenzene.

G. UTILITIES

Public Water Supply

The Town of Stony Point obtains its water supply from the Spring Valley Water Company, a privately owned and operated utility. Developed areas of the Town, served by public water, lie east of Thiells Road and south of Tomkins Cove. Segments of Stony Point outside of this service area rely on private wells for their water.

In order to serve the Stony Point community, the Spring Valley Water Company draws its supply from both wells and surface water sources. Water drawn from surface supplies comes from Cedar Pond Brook. Water from the brook is held in a small reservoir near Reservoir Road, filtered and then pumped to storage tanks near Crickettown Road. Supplementing this local source is water from the Calls Hollow Storage facility in Pomona.

Surface water obtained from Cedar Pond Brook is of high potable quality and meets all of New York State's drinking water standards. Water from this source can be expected to be soft and slightly alkaline. Treatment of Cedar Pond Brook Water consists of coagulation, filtration, chlorination and ph adjustment.

Sewage Treatment System

The wastewater treatment system consists of a network of lateral sewers tributary to the major interceptors located along Cedar Pond Brook, Beach Road and Main Street, providing service to the more densely populated areas of the Town. The Beach Road pumping station collects the flow from these interceptors and pumps it across Minisceongo Creek to the Grassy Point interceptor sewer. A pumping station at the plant site lifts incoming sewage from the Grassy Point interceptor sewer through the extended aeration secondary treatment plant, and from there flows by gravity through an outfall sewer to the Hudson River.

The present plant consists of the following process units following influent wastewater pumping: grit removal, extended aeration, clarification, and disinfection. The excess solids removed in clarification are stabilized by aerobic digestion, dewatered through open air sludge drying and disposed off site.

The Town of Stony Point's plant, built in 1969, handles about one million gallons daily. Currently, about two thirds of the Town's 12,000 residents are served by the sewage system with no future plans to include the outreaching areas of the Town because of the rocky terrain.

H. TRANSPORTATION

Stony Point is served by a well-developed system of limited access highways and major roadways. Improvements to these transportation facilities during the last two decades have been a significant contributing factor for development within the Town and its surrounding communities. Construction of these facilities has helped to cope with increasing traffic loads, providing an incentive for industry to settle in the Town and for individuals working in the metropolitan area to reside in Stony Point.

The Rockland County Highway Department and the New York State Department of Transportation have conducted traffic flow studies in the Town of Stony Point. Results of these studies confirmed that those areas with the most commercial and industrial development would be near congested roadways and in need of the greatest improvement. The convergence of several major roadways in the southeast portion of Stony Point has attracted development to this area, which has resulted in traffic exceeding projected demands.

The Palisades Interstate Parkway and Route 9W at Main Street have the greatest annual daily traffic volumes (1991), measuring 29,300 and 15,800 respectively. Volumes of 4,000 vehicles are typical for Central Highway, Willow Grove Road, Gate Hill Road, Thiell Road, and Filors Lane and Main Street. The majority of remaining principal roads in the Town carry light traffic loads averaging less than 1,000 vehicles.

Traffic volume is heaviest during the peak commuter hours from 7-9:30 a.m. and from 4-7 p.m. At present, local roads and streets are generally capable of handling existing traffic. Travel speeds are often slow, however, because of steep grades and sharp curves. Parking on the waterfront is very limited. Any proposed action in the waterfront area will be restricted to some degree because of these constraints.

Public transportation within the Town of is limited to bus passenger service. Transport of Rockland (TOR) operates two fixed bus routes through Stony Point, Routes 79 and 91. Route 79 runs between Stony Point and the Village of Haverstraw with a stop at Letchworth Village. Route 91 runs between Tomkins Cove and New City. TOR also operates a flexible route program which offers curb to curb service to senior citizens and handicapped persons, provided that at least 48-hour notice is given.

Red and Tan lines operates a fixed bus route, #47, between Stony Point and the Port Authority Bus Terminal in New York. This bus route is an expansion of the service provided by the #11A bus route; which terminates in Haverstraw. The #47 bus route essentially provides rush hour service to New York City in one morning and return service to Stony Point in the evening. In addition, there is an evening run into New York City from Stony Point.

Short Line operates a bus route between New York City and Newburgh. However, passengers are only picked up when travelling north to Newburgh.

I. SCENIC RESOURCES

The suburban expansion of the past few decades within the Town of Stony Point has changed the character of the community from what was largely a rural, recreational "backyard" of New York City to what is now a suburban, yet still comparatively rustic recreational "fringe" of the city.

Amongst the increasing regularity of large lot subdivisions and shopping centers remain a surprising number of features of outstanding visual quality that evoke a warm feeling, a positive human response. Awareness of these scenic resources by Stony Point residents is vital in any effort to preserve these unique, natural and man-influenced sections of the town. Due to their dwindling supply, and coupled with an increasing population and leisure induced demand, these scenic areas require a high priority for protection and conservation and a low priority for development.

The following inventory of scenic resources includes a number of areas or features already protected either through public parklands or private holdings. However, many wetlands, streams, views, trails and other significant Stony Point landscapes are not owned by the public and are therefore potentially susceptible to alteration or destruction. Local conservation groups and Town and County government must act to protect these scenic resources. Efforts should be made to acquire exceptional scenic areas by fee, or by conservation easements held by the Town or land trust.

Other techniques which the Town should consider to preserve the scenic resources include establishing a local scenic road program, pursuing State Scenic Road designation for segments of U.S. Route 202/9W - south of Bear Mountain State Park, and creating scenic districts and critical environmental areas. The Town could also create a scenic overlay zone.

In unavoidable situations where new development or changes in land use within or near a recognized scenic area or feature does occur, the Town will require the applicant, through site plan and project design review, to make all reasonable efforts to harmonize and not interfere with the visual character of the landscape. In addition, since the entrances and surroundings of the scenic locale are often as visually important as the scenic area itself, methods to preserve such fringe and buffer areas are necessary. For example, the establishment of visual corridors along trails and parks, bikeways, stream courses, or ridges may be enhanced by the creation of scenic easements or the use of public dedication by involved property owners.

Scenic resources appearing in this inventory include outstanding examples of one or more of the following:

- a panoramic view

- a landscape which exemplifies unique contrast, variety or harmony in:

  - terrain
  - vegetation
  - pleasing aesthetic qualities of built-natural landscape interrelationships
  - ephemeral qualities (seasonal features)
  - streetscapes

Local Scenic Resources

The Town of Stony Point offers spectacular scenic vistas and panoramic views from its upland areas, as well as from several ground level locations (viewing locations are depicted on Map 3). The most exceptional views can be experienced in the following areas:

1. Traveling north along U.S. Route 9W from the northern end of Tomkins Cove to Bear Mountain State Park, views of the ecologically and topographically diverse environment of Iona Island are revealed, as well as the tranquillity of the Hudson River, the rolling hills of Westchester County, and the architecture of the Bear Mountain Bridge.

2. Iona Island offers scenic vistas and panoramic views of the fresh water marsh, streams, the Palisades Mountains and Westchester Hills.

3. Screened views of the Hudson River, Grassy Point Marinas and the Palisades in the background are revealed from the Stony Point Battlefield Historic Site. Trees along the ledge should be selectively trimmed to enhance views.

4. Exceptional views of Haverstraw Bay can be experienced along River Road in Grassy Point.

5. Views of Grassy Point from the Bay, however, are not as spectacular. Several possible historic structures have been left to deteriorate. Every effort should be made by the community to conduct a historic survey of the structures to determine National Register eligibility status and to ultimately restore these structures, as appropriate.

6. Views of the Stony Point Battlefield Historic Site, the Westchester Highlands, as well as Grassy Point, can be experienced from Hudson Drive.

7. The Hudson River, upstream where the Bear Mountain Bridge marks the northern most tip of Rockland County, can be viewed from Perkins Memorial Drive near Bear Mountain.

8. Below Bear Mountain, U.S. Route 202/9W south follows the westerly side bank of the Hudson River for approximately one mile. The meandering streams and wetlands of Iona Island below and the rolling Westchester hills to the east can be seen along this stretch of U.S. Route 202/9W.

9. Scenic views can be seen from many other sites along U.S. Route 9W (i.e. Boulderberg Manor), as well as from Bay View Drive, Mott Farm Road, Lincoln Oval, Lighthouse Court, Main Street, Freehill Road, and Jackson Drive. Many views open up considerably during the winter and early spring when the deciduous trees are bare.

Additionally, New York State has officially designated the following roadways as Scenic Roads under Article 49 of the Environmental Conservation Law:

- Roads within Bear Mountain State Park, including Seven Lakes Drive, U.S. Route 9W and 202 and the road to Iona Island; and

- Bear Mountain Bridge.

Hudson Highlands Scenic Area of Statewide Significance

The Hudson Highlands Scenic Area of Statewide Significance (SASS) encompasses a twenty mile stretch of the Hudson River and its shorelands and varies in width from approximately 1 to 6 miles. The SASS includes the Hudson River and its east and west shorelands. It extends from its northern boundary, which runs from the northern tip of Scofield Ridge, Denning Point and the base of Storm King Mountain to its southern boundary at Roa Hook and the southern limits of the Bear Mountain State Park. At the SASS's northern and southern extremes, the SASS extends across the Hudson River to the mean high tide line on the opposite shoreline.

The Hudson Highlands SASS, (see Exhibit II-E), is comprised of a total of twenty-eight (28) subunits. Five (5) of those subunits are in the Town of Stony Point, (see Exhibits II-F and II-G). Descriptions of subunits located in the Town are provided in Appendix A.

Negative Visual Elements

The scenic attraction is adversely affected as follows:

Grassy Point:	Abandoned barges, dilapidated structures, abandoned automobiles, appliances, litter, overhead utility lines, U.S. Gypsum Plant.
Beach Road:	Abandoned garbage trucks, litter, auto parts, unkempt auto repair shops.
Stony Point Battlefield:	Litter on south shore, dilapidated dock on north shore.
From Route 9W:	View of Indian Point Power Plant Tilcon Quarry Operation Orange and Rockland Power Plant Abandoned barges on Grassy Point

J. WATERFRONT ACCESS

Access to the Hudson River Waterfront is of three different types: (1) federal, State and Town parkland, (2) commercial boat yards, and (3) quasi-public access through waterfront clubs. Each type of facility offers a somewhat different range of facilities. A small number of access sites are available for public use along the Stony Point Waterfront. The Town recently purchased vacant parcels located along the Hudson River. One parcel consists of the land which has been developed into Riverside Park, while another parcel immediately across Grassy Point Road provides additional parking and picnic areas. The Town has also purchased the former Keahon property and plans to develop this site for recreational use as well.

The federally-owned facility at Iona Island offers passive waterfront access by permit only. The State-operated facilities at Bear Mountain State Park and Stony Point Historic site also offer passive waterfront access.

An opportunity exists at Stony Point Battlefield to rehabilitate the dock on the north shore (see "Historical Development of the Waterfront Area" and Inventory and Analysis) and possibly to create a trail connecting Stony Point Battlefield Historic site on the south shore with Beach Road in Grassy Point. Boats may be launched within the Town of Stony Point at the existing marinas, with the exclusion of the Stony Point Marina and Yacht Club which does not have the facilities for boat launching.

The following public waterfront access sites are located in the Town:

1. Stony Point Battlefield Historic Site - exhibits, hiking, picnicking, scenic views, unofficial walking trail to the Hudson River and beach (south side); unofficial dock and fishing (north side).

2. Bear Mountain State Park - picnicking, trails, scenic vistas and panoramic views, boat launch.

3. Iona Island - trails, scenic vistas, environmental education.

4. Riverside Park - picnicking, fishing, passive recreation, scenic views, limited parking.

5. Keahon property (Town-owned parkland) - passive recreation, picnicking, limited parking.

In addition, the Minisceongo Boat Club and Seaweed Yacht Club offer quasi-public access.

The following private waterfront access sites are located in the Town (see Map 3):

1. Willow Cove Marina
   200 Hudson Drive

2. Belle Harbor Marina
   Beach Road

3. Boatland On Hudson
   East Main Street
   Slips - 120

4. Stony Point Marina and Yacht Club
   4 Hudson Drive

5. Kenway Marina
   Slips - 200

6. Minisceongo Yacht Club
   Slips-104

7. Seaweed Yacht Club
   Beach Road

K. SUMMARY OF UNDER-UTILIZED, ABANDONED OR DETERIORATED SITES

1. Bear Mountain State Park (Map 2) - Iona Island is under-utilized by Stony Point Town residents. In order to walk the Island, a visitor must first obtain a permit from the research center on site. Because of this permitting process, Stony Point residents rarely take advantage of this spectacular ecological resource. The

visitor permit system should be redesigned to allow for greater use by Stony Point Town residents (see Section D).

A public boat launch available at Bear Mountain is another under-utilized use. Although the boat launch is a facility serving an appropriate water-dependent use, the Town, as well as the Palisades Interstate Park Commission, should attempt to increase resident use of the boat launch site.

2. Jones Point (Map 2) - It appears that some of the older homes in Jones Point may be eligible for listing on the National Register of Historic Places. Listing properties on the National Register increases the eligibility for federal tax incentives and funding, to help restore and preserve these important resources.

   There is an existing bicycle route in this area which is under-utilized and should be restored. The trail requires reconstruction and better signage. This bicycle route could provide an important component for a linear trail along the waterfront.

3. Tomkins Cove-Quarry (Map 2) - The Tomkins Cove area offers spectacular views of the Hudson River and Westchester Highlands. However, efforts have not been taken to preserve, enhance or to make these views more accessible to the public.

   Scenic stopping places should be created along U.S. Route 9W and possibly along Gays Hill Road. Scenic road designation should be pursued to encourage the preservation and enhancement of the vistas along these roads.

4. Stony Point Town Center (Map 2) - Vacant and under-utilized land exists adjacent to the marinas on Hudson Drive. This land offers an opportunity to create a waterfront trail linking the Stony Point Battlefield Historic Site with Hudson Drive and an opportunity to create a boat launch and scenic overlook. The Stony Point Battlefield Historic Site is not being utilized to its fullest potential. An abandoned dock exists on the north shore of the site, although it is located on privately-owned land. The restoration of this dock should be encouraged (see Existing Land and Water uses, Section D-4). If restored, this dock could provide an opportunity for boaters to dock and enjoy the park. An opportunity also exists to develop a walking trail from the Stony Point Battlefield Historic Site to Hudson Drive. There is also an opportunity to create a boat launch and scenic overlook. These opportunities should be pursued.

5. Grassy Point (Map 2) - Much of the housing in Grassy Point is fairly old. It appears that several structures located along Grassy Point Road may be eligible to be listed on the National Register of Historic Places.

L. SUMMARY OF WATER-DEPENDENT AND WATER-ENHANCED USES

1. Bear Mountain State Park (Map 2) - The boat launch at Bear Mountain is a water-dependent use. It primarily serves as a launching and docking site for private and commercial boaters along the Hudson River (see Section D, Existing Land and Water Uses).

   Iona Island is a water-enhanced use. The Island is part of the Hudson River National Estuarine Research Reserve. The Island is used for camping, bird watching, river viewing and waterfront trail walking.

2. Jones Point (Map 2) - The existing walking and biking trail is a water-enhanced use.

   Jones Point also offers opportunities for waterfront viewing. These areas should be preserved.

3. Tomkins Cove (Map 2) - Tomkins Cove offers spectacular river views which are water-enhanced uses.

   Orange and Rockland Power Plant and the Tilcon Quarry are water-dependent uses since they require large amounts of water for their operation. Air emissions, as well as future development activities, should be closely monitored.

   Development activities within these facilities should be closely monitored to minimize any impacts to surrounding land and water uses.

4. Stony Point Town Center (Map 2) - The Stony Point Battlefield Historic Site is a water-enhanced use providing a trail and stopping places to view the river. In the past, the dock on the north shore provided a water-dependent use.

   Marinas along Hudson Drive provide a water-dependent use.

   The Stony Point Light House is a water-enhanced use. This important historic resource should be preserved.

5. Grassy Point (Map 2) - The County-owned beach provides a water-dependent use. This area should be better maintained.

   Several marinas and a boat sales yard provide water-dependent uses.

   US Gypsum is a water-dependent use since it has shipping facilities on the Hudson River. Unofficial fishing areas provide water-dependent uses in this section of Town.

The Town-owned parkland along the Hudson River should be developed to maximize its use by local residents for active and passive recreational activities.

M. SUMMARY OF IMPORTANT WATERFRONT ISSUES

1. Need to provide additional public access opportunities to the Hudson River.

   - This issue was raised for discussion in the initial draft of the LWRP. At the time when that draft was prepared, existing waterfront public access opportunities were minimal. Access was available only to private marina members, and the public opinion survey (see Appendices B-C) indicated public access to be a key concern of Town residents. Since that time, the Town has obtained waterfront properties in two areas along the Hudson River, which it will devote for recreational purposes.

2. Need to acquire additional land for recreation and public access to the waterfront.

   - As noted above, the Town has recently acquired land for recreation and public access to the waterfront. The Town does not plan to purchase additional waterfront land at this time, but may consider options in the future.

3. Need to provide additional recreational opportunities such as a public boat launch, waterfront trail or park.

   - At present, the Town of Stony Point does not have a public boat launch. The need and desire for a public boat launch scored very high in the public opinion survey. The Town has purchased a number of properties along the Hudson River which should be evaluated for the development of a public boat launch facility.

4. Need to enhance and protect waterfront views.

   - Stony Point has spectacular scenic vistas and panoramic views. The waterfront public opinion survey indicated views to be of utmost importance. Several opportunities exist to further enhance views by selectively thinning and removing distractive elements. There are also mechanisms, such as Scenic Road designations and overlay districts, that the community should utilize to protect views.

5. Need to restore and preserve historic resources.

   - The inventory and analysis reveals that many structures in Stony Point could be eligible for National Register listing. The public opinion survey rated the preservation of historic resources higher than any other question.

6. Need to protect wetlands, drainage basins and habitats from environmentally inappropriate development.

   - Wetlands are an invaluable resource. They serve as a habitat for a wide diversity of wildlife and plant flora. Stony Point has several wetland areas. The Town also has three State-designated Significant Coastal Fish and Wildlife Habitat areas -- Hudson River Mile 44-56, Iona Island and Haverstraw Bay.

7. Need to control the number, design and density of docks and moorings. The inventory and analysis indicated that the number, design and density of docks and moorings is beginning to impact the community and its resources.

   - Road traffic to marinas during boating season is beginning to impact normal traffic flow. Although Grassy Point Road, River Road and Beach Road are components of a designated bicycle route, it is hazardous to ride during the spring and summer months due to the increased traffic.

   - The design, density and number of docks is beginning to impact views to and from the Hudson River. In some areas where, in the past, one could see the river, today only a dock, boat or travel lift can be seen.

   - The design, number and density of docks and moorings could impact the area's significant habitats. The Haverstraw Bay's Significant Coastal Fish and Wildlife Habitat is close to most of the marinas. Haverstraw Bay poses a combination of physical and biological characteristics that make it one of the most important fish and wildlife habitats in the Hudson River Estuary. Haverstraw Bay is a nursery area for striped bass, American shad, white perch, tomcod, and Atlantic sturgeon. It is also a major nursery and feeding area for certain marine species, most notably bay anchovy, Atlantic manhaden, and blue claw crab. Haverstraw Bay is a critical habitat for most estuarine dependent fisheries originating from the Hudson River. This area contributes directly to the production of in-river and ocean populations of food, game and forage fish species. Any activity that would substantially degrade water quality, increase turbidity or sedimentation, or alter water salinities or warm temperatures in Haverstraw Bay, would adversely affect the fish and wildlife resources of this area. Any physical modifications of the habitat or adjacent wetlands

through dredging, filling or bulkheading, would result in a direct loss of valuable habitat area.

8. Need to prevent unsuitable development in floodways and in the 100-year floodplain.

   - Seasonal flooding occurs along most of the Stony Point shoreline. Unsuitable development, such as residential construction should be prevented in these areas.

9. Need to balance the distribution of water-dependent and water-enhanced resources between marinas and other uses.

   - Public access to the Hudson River in Stony Point is limited, since most of the water-dependent recreational uses are community operated marinas.

     Because of the very limited availability of waterfront land, further expansion of the marina industry without strict design and development guidelines would only exacerbate the problem of public access. In promoting development along the river, therefore, priority should be given to water-dependent uses such as fishing and boating and to water-enhanced uses such as pedestrian and bicycle trails, picnic areas, and scenic overlooks.

HUDSON RIVER MILES 44-56

CONSTITUTION MARSH

MATCH LINE

SIGNIFICANT COASTAL FISH AND WILDLIFE HABITATS

EXHIBIT II-A

Hudson River Miles 44-56 (In part) / Constitution Marsh

Miles 0 ½ 1

N

New York State Department of State Division of Coastal Resources and Waterfront Revitalization

Prepared by T. Hart and G. Capobianco September 1990

MATCH LINE

HUDSON RIVER MILES 44-56

IONA ISLAND MARSH

SIGNIFICANT COASTAL FISH AND WILDLIFE HABITATS

EXHIBIT II-B

Hudson River Mile 44-56 (In part) / Iona Island Marsh

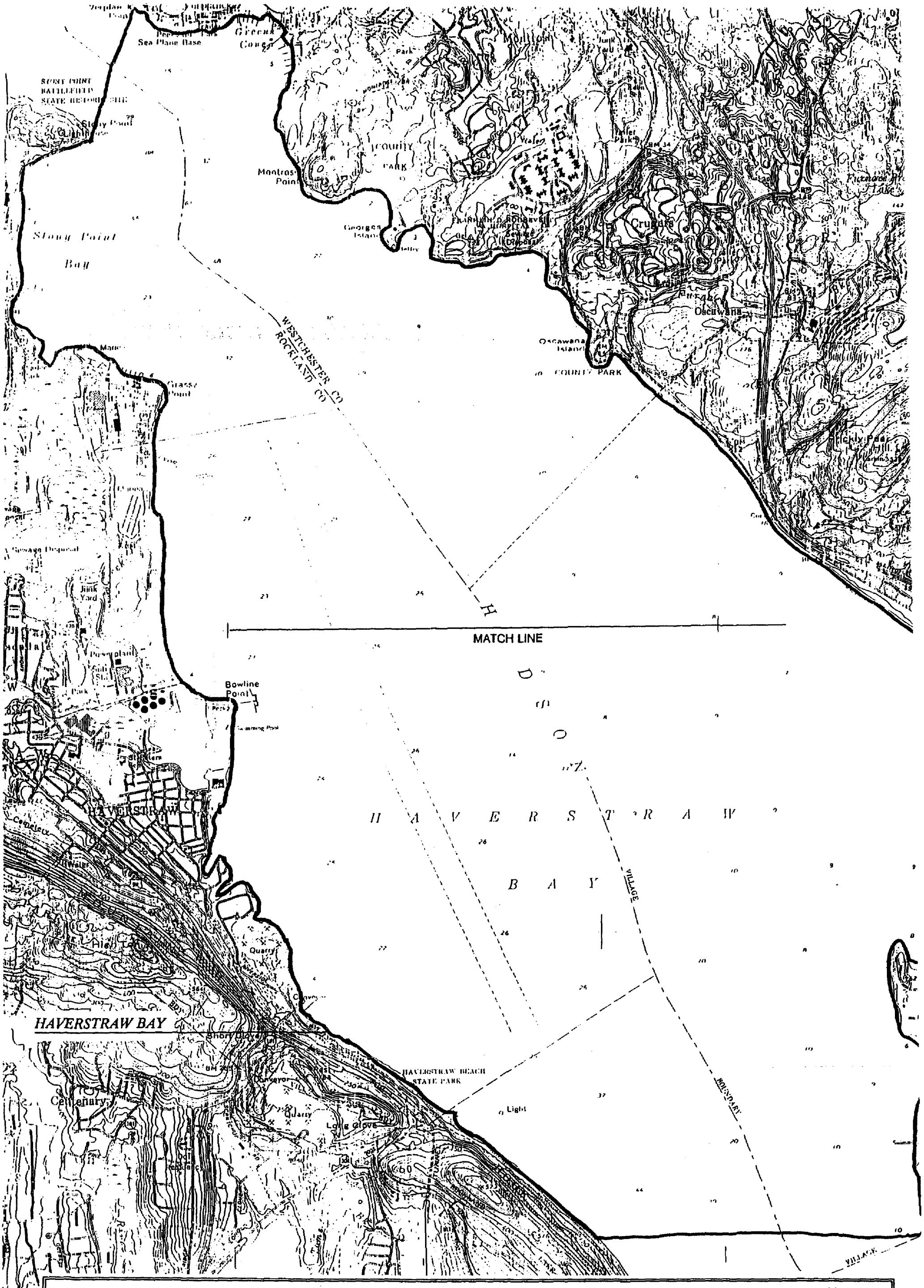
Miles

0 ½ 1

N

New York State Department of State Division of Coastal Resources and Waterfront Revitalization

Prepared by T. Hart and G. Capobianco September 1990



SIGNIFICANT COASTAL FISH AND WILDLIFE HABITATS

Haverstraw Bay (In part)

EXHIBIT II-C

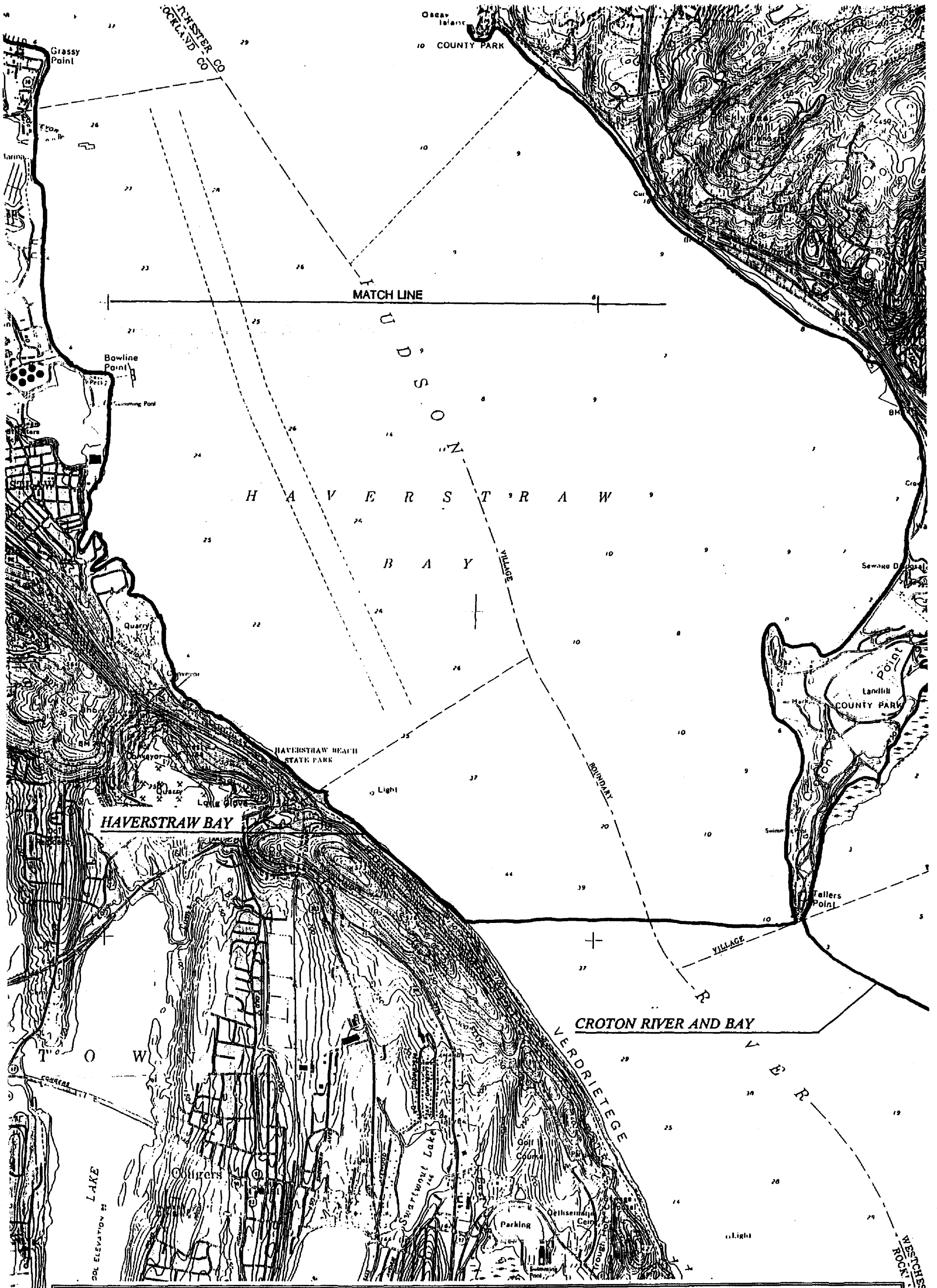
Miles

0 ½ 1

N

New York State Department of State Division of Coastal Resources and Waterfront Revitalization

Prepared by T. Hart and G. Capoblanco September 1990



SIGNIFICANT COASTAL FISH AND WILDLIFE HABITATS

Haverstraw Bay (In part) / Croton River and Bay (In part)

EXHIBIT II-D

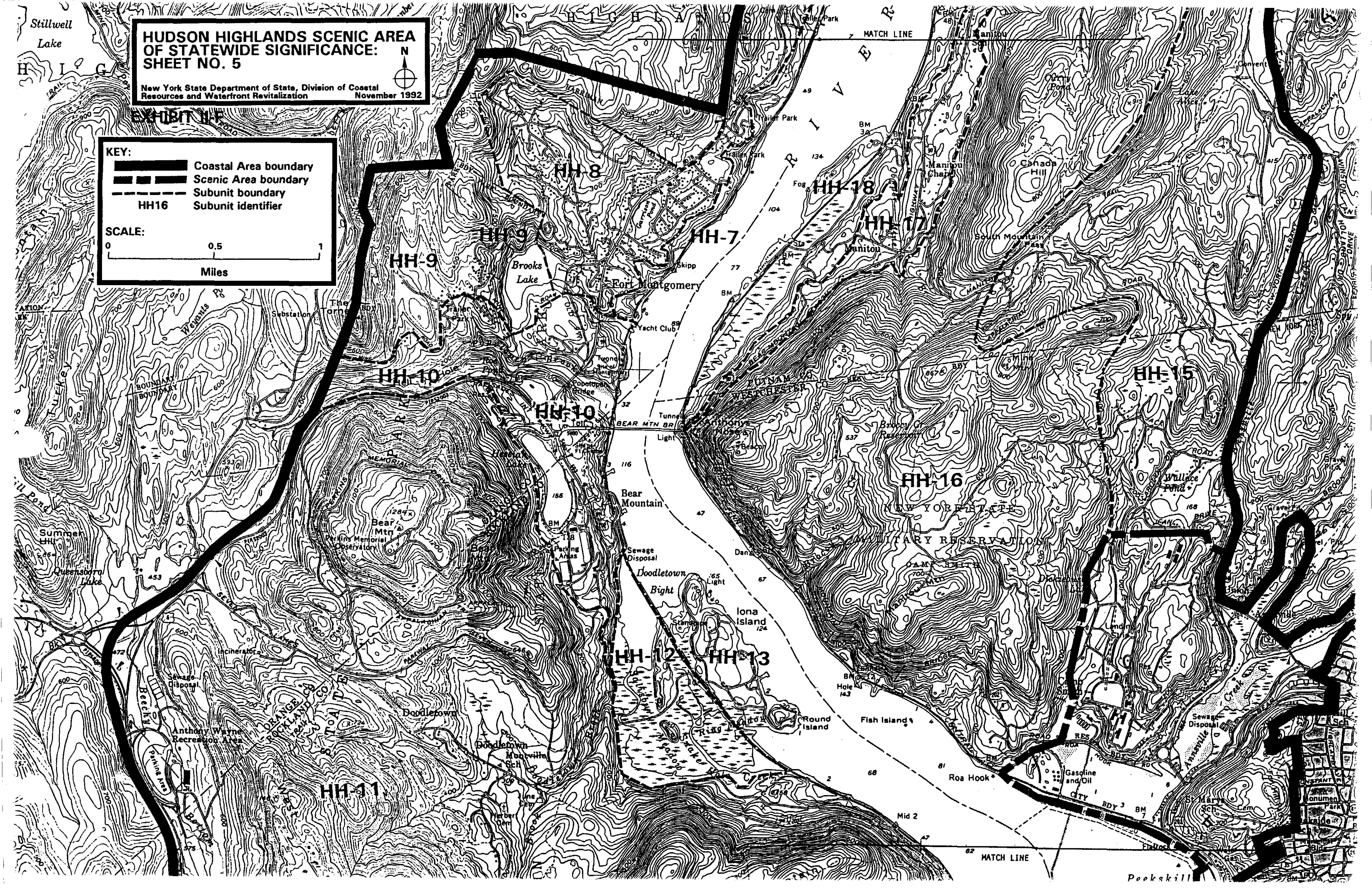
Miles

0 ½ 1

N

New York State Department of State Division of Coastal Resources and Waterfront Revitalization

Prepared by T. Hart and G. Capobianco September 1990


HUDSON HIGHLANDS SCENIC AREA OF STATEWIDE SIGNIFICANCE: SHEET NO. 5
N
New York State Department of State, Division of Coastal Resources and Waterfront Revitalization
November 1992
EXHIBIT II-F
KEY:
Coastal Area boundary
Scenic Area boundary
Subunit boundary
HH16
Subunit identifier
SCALE:
0
0.5
1
Miles
MATCH LINE
HH-7
HH-8
HH-9
HH-10
HH-11
HH-12
HH-13
HH-15
HH-16
HH-17
HH-18
Stillwell Lake
Brooks Lake
Fort Montgomery
Yacht Club
Popolopen Bridge
BEAR MTN BR
Bear Mountain
Bear Mtn
Perkins Memorial Observatory
Sewage Disposal
Doodletown Bight
Iona Island
Round Island
Fish Island
Roa Hook
Gasoline and Oil
Mid 2
Doodletown
Anthony Wayne Recreation Area
Summer Hill
Queensboro Lake
Incinerator
Canada Hill
South Mountain Pass
Manitou
Trailer Park
Substation
Wallace Pond
NEW YORK STATE MILITARY RESERVATION
PUTNAM CO
WESTCHESTER CO
ORANGE CO
ROCKLAND CO
Peekskill
St Marys
Light
Tunnel
Skipp

HUDSON HIGHLANDS SCENIC AREA OF STATEWIDE SIGNIFICANCE: SHEET NO. 6

KEY:

- Coastal Area boundary
- Scenic Area boundary
- Subunit boundary
- HH11 — Subunit identifier

SCALE: 0 — 0.5 — 1 Miles

N

New York State Department of State, Division of Coastal Resources and Waterfront Revitalization

November 1992

EXHIBIT II-G