

SECTION II - INVENTORY AND ANALYSIS

Orientation

The Town of Smithtown is located in the northwest quadrant of Suffolk County, New York. The Town is bounded on the north by Long Island Sound, and on the west, south and east by the towns of Huntington, Islip and Brookhaven respectively. The three incorporated villages in the Town include Nissequogue, Head of the Harbor, and The Branch. The villages of Nissequogue and Head of the Harbor are located in the coastal zone area and are independently preparing their own LWRP.

The Town of Smithtown is roughly square, and including the incorporated villages, is approximately 55 square miles (35,000± acres). The unincorporated portion of the Town is approximately 44 square miles (28,000± acres). The land area of the waterfront consists of approximately 10 square miles (±6,000 acres).

The Smithtown waterfront is characterized by a diversity of high quality visual character types. The shoreline is generally smooth except that it is punctuated by Sunken Meadow Creek, the Nissequogue River, and Stony Brook Harbor. Steep escarpments generally 50-125 feet in height are situated behind coarse sand beaches. The escarpments ("bluffs") are not present near Fresh Pond and/or sandspits, such as Sunken Meadow, Short Beach, and Long Beach. The spits and dunes in these areas protect large estuarian and fresh water wetlands. The coastal area projects furthest inland along the Nissequogue River where the coastal flood hazard area extends as far south as Caleb Smith State Park. The upland areas of the waterfront are characterized by heavily wooded rolling terrain.

Smithtown is a suburban town, however, its waterfront area has a surprisingly natural visual character. The population density of Smithtown is over 2,500 people per square mile, however, the population density in the waterfront area is less than 500 people per square mile. This is due to the fact that a large portion of the waterfront area is publicly owned. The largest public facilities in the waterfront area include Sunken Meadow State Park, Kings Park Psychiatric Center and Caleb Smith State Park.

The local economy is not based on the Town's waterfront. The Town has over 2,500 acres of industrially zoned land in the central and southern parts of the Town. These industrial areas are located near important transportation facilities, such as the Long Island Expressway and the Northern State Parkway. The Town's business districts are also located generally outside the waterfront area. The western end of the Smithtown Central Business District (CBD) is located in the waterfront area, however, it is not intensively developed and the Town's policy is to guide development away from the waterfront area due to environmental constraints. Neighborhood shopping centers, commercial strips, a regional mall and the St. James and Kings Park business districts are located well outside the waterfront area. These areas are also more centrally located with regard to access and population.

Until the mid-nineteenth century, when ships were the dominant mode of transportation, Smithtown's waterfront was more important to commerce than it is today. Vessels loaded and unloaded goods at landings near Old Dock Road, the Psychiatric Center channel, Landing Road, Landing Avenue and Main Street. The Main Street area was especially important because it was the furthest upstream that commercial boats could go. The landing was adjacent to one of the few regionally important highways. West of the river, the highway was a toll road (Jericho Turnpike); to the east it was known as Middle Country Road.

In the early 1800's, earthen mill dams and watermills were built on the Nissequogue River creating Phillips Mill Pond and New Mill Pond. Small hamlets developed around these mills. The mills at Phillips Mill Pond were within a few hundred feet of the landing at Jericho Turnpike. The close proximity of the industrial mills to the transportation interface caused this area to develop into the commercial hub of the Town.

Although waterborne transportation was important to the early economy, it was probably the lack of a good harbor that caused Smithtown to be less regionally important than Huntington, Northport and Port Jefferson. These communities were located adjacent to deep, well protected harbors.

As transportation and industrial technology changed, the waterfront lost its commercial and geographical significance. With the advent of the railroad, and then automobiles, the role of boats became less significant in transportation. The development of electrical power meant that industry, which previously depended on water power, could locate near less obsolete modes of transportation. In the 1870's, the Long Island Railroad was extended through Smithtown and a station was built about one mile east of the Nissequogue River. A new commercial center developed around the railroad station and has evolved into the present central business district of the Town. The old hub declined and it is no longer evident that the area was a significant business center. Today this area is on the fringe of the central business district.

Section II of this plan provides an inventory of waterfront resources and conditions, and identifies specific issues, problems, and opportunities existing in Smithtown's waterfront area.

INVENTORY OF EXISTING CONDITIONS AND RESOURCES

A. NATURAL RESOURCE BASE

1. Geology

The surficial geologic material in the area consists of typical unconsolidated deposits found throughout Long Island. The deposits consist mostly of layers of sand and gravel, however, clay and silt are present in some areas. Clay lenses are encountered near the surface of the land immediately west of the Nissequogue River. The clay lenses can pose significant development constraints due to poor soils. Erratic boulders ranging in size from a few cubic feet to a few cubic yards are occasionally encountered in the waterfront area, however, they rarely pose development constraints. Bedrock is not a

significant constraint in the area as it lies approximately 1,000 feet below sea level.

The physiographic features of the waterfront area are largely of glacial origin and consist of, from north to south:

1. escarpments on Smithtown Bay;
2. sandspits separating the Bay from St. Johnland Creek, Nissequogue River and Stony Brook Harbor;
3. Manhasset plateau;
4. Harbor Hill moraine;
5. Smithtown driftless area.

The elevation of the waterfront area ranges from 0 to 250 feet. The Manhasset plateau is approximately 50 to 125 feet in elevation. The altitude of the Harbor ranges from about 150 to 250 feet. The Smithtown driftless area which is located in the outwash of the Harbor Hill moraine is about 20-100 feet in elevation.

The waterfront area is generally characterized by rolling topography. The land forms are dissected by a dendritic pattern of glacial outwash channels which lack streams. The bottoms of the channels are typically narrow, ranging from 50 to 100 feet. The sides of the channels are moderately steep to steep (8-35%) and range in height from 20 to 50 feet.

Steep slopes are a significant land use constraint in the waterfront area. Moderately steep slopes (8-15%) pose moderate limitations on developing homesites, and severe limitations on developing streets and parking areas. Low density residential development would be appropriate in these areas, however, moderate to high density residential development and commercial and industrial uses would likely cause problems.

The steep slopes of 15-35% pose severe limitations for all types of residential, commercial and industrial development. Very low density residential development can be accommodated provided that sensitive architectural design, site design and erosion control are employed. Slopes of 15-35% are common along the edge of the Nissequogue River and in the western portion of the Kings Park Psychiatric Center.

Due to instability and high erosion hazards, slopes greater than 35% are not suitable for any development. These slopes are the steepest slopes in the coastal area (and the region) and consist almost entirely of actively eroding escarpments facing Long Island Sound.

Erosion in the Smithtown waterfront area can be classified as follows:

1. shoreline
2. stream bank
3. bluff
4. upland development

The Town has identified the following as causes of its erosion problems:

1. natural forces (rain, wind, wave and current action)
2. pedestrian traffic
3. off-road vehicles
4. boat traffic
5. development
6. counter-productive erosion control structures

The Town has identified the following specific erosion problem sites:

<u>Erosion Problem Site</u>	<u>Erosion Type</u>	<u>Cause</u>
1. Fort Salonga	Bluff	*Development
2. Callahan's Beach	Bluff	*Development and foot traffic
3. Kings Park Bluff	Bluff	*Development, foot traffic and counter productive erosion control structures
4. Kings Park Pschiatric	Stream bank	*Boat traffic
5. San Remo	Upland/development	*Development
6. Landing Avenue Park	Stream bank	*Foot traffic and development
7. Jericho Turnpike	Upland development	*Development

*Natural forces are present in all erosion.

Perhaps the most conspicuous examples of erosion are on the bluffs facing the Long Island Sound. Property owners in Fort Salonga have lost large sections of their backyards to bluff erosion. A large gully developed at the east end of the parking lot in Callahan's Beach in the 1970's. The Town has tried to establish plant growth to arrest erosion. If the erosion is not arrested, it threatens to undermine the parking lot and adjoining picnic area. The overlook at the Kings Park Bluff has already once been undermined by erosion. The Town installed leaching rings at the base of the escarpment, however they collapsed within six months. According to studies by the Marine Science Research Center, SUNY Stony Brook, the erosion rate of the bluffs is about two feet per year. This severe erosion threatens many residences as well as public facilities. This erosion also causes ecologic impacts by undermining salt tolerant vegetation and exposing intolerant vegetation to the harsh winds and salt spray.

The geology of the waterfront area also has significant aesthetic, recreational, and educational values. The escarpments are prominent visual features that characterize the North Shore of Long Island. Although it is not feasible to build on the escarpments, their appearance has changed little since the age of the glaciers. There are extremely complex land forms formed by wind erosion located at the top of the escarpments west of the Kings Park Bluff. An esker is located near Landing Avenue and is unique in the Town of Smithtown.

2. Soils

About two-thirds of the Town's waterfront area lies in the Carver-Plymouth-Riverhead Association and about one-third lies in the Plymouth Carver Association, rolling and hilly. The Carver-Plymouth-Riverhead Association consists of deep, rolling excessively drained and well drained coarse textured and moderately coarse textured soils on moraines. The Plymouth-Carver Association consists of deep, excessively drained coarse textured soils on moraines.

Carver soils are the most common soils in the waterfront area. They are coarse textured and excessively well drained.

Plymouth soils are the second most common soils in the waterfront area. They are transitional with regard to texture and location between Carver soils and Riverhead soils.

Riverhead soils are the third most common soils in the waterfront area. They are moderately coarse textured soils and are most common in level, upland areas such as parts of Fort Salonga. Riverhead soils are deep and well drained. They have a surface layer and subsoil of sandy loam.

3. Hydrology

This section is divided into four sub-sections: Ground and Surface Waters, Water Quality, Flood Hazard Zones, and Wetlands.

Surface and Groundwater Resources

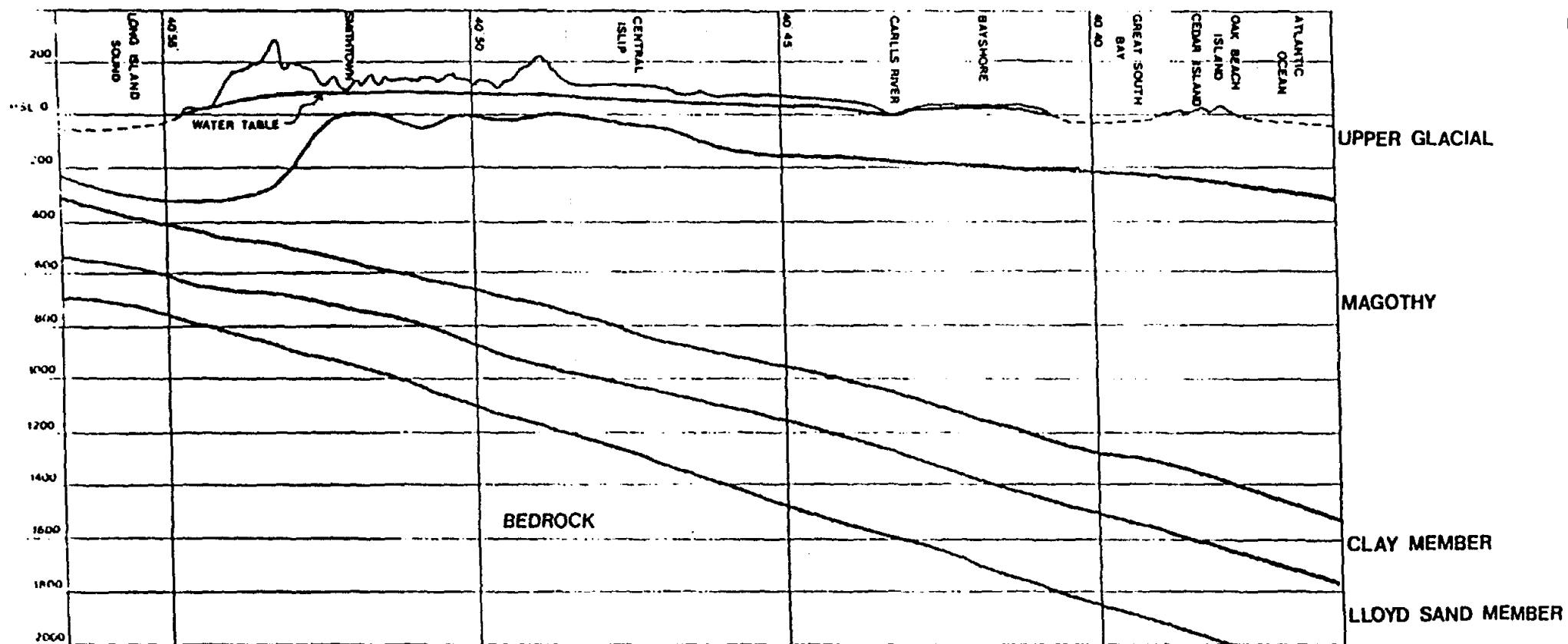
The waterfront area is within several watersheds, the largest of which is the Nissequogue River basin. This basin is almost entirely in the Town of Smithtown and includes about 26 square miles. Smaller watersheds drain into Sunken Meadow Creek, Fresh Pond, and directly into Smithtown Bay. The Nissequogue, although one of the smallest rivers in New York State, is regionally important as it is one of the four major streams on Long Island. It is almost entirely located in the Town of Smithtown, and the Town has been attempting to preserve its natural resources as it is a significant part of the Smithtown waterfront. The River is largely tidal downstream from the Long Island Railroad trestle.

Three aquifers are present throughout the waterfront area as well as the rest of the Town. The deepest aquifer, the "Lloyd", is about 200 feet thick and, in the Town of Smithtown, lies on the bedrock about 700 to 1,000 feet below sea level. The Lloyd has the least contaminated water, but it is not used as a water supply source because water of adequate quality can be pumped from higher aquifers. The middle aquifer, known as the "Magothy", varies in thickness in the waterfront area. Although it is contaminated in some locations, it is the region's principal water supply source via community and individual wells. It is separated from the Lloyd by about 200 feet of clay strata. The highest aquifer is the "Upper Glacial", which also varies in thickness in the waterfront area. It is regarded as generally too polluted for use, however many individual, private wells pump water from this aquifer. East and south of Sunken Meadow State Park the Upper Glacial and Magothy are separated by clay strata known as the Smithtown clay unit. Perched water tables, caused by clay lenses, are reported to be prevalent between Sunken Meadow State Park and the Landing Avenue bridge. Locations with perched water are poorly suited for development due to poor subsurface drainage.

The groundwater reservoir is resupplied only by recharge (i.e., stormwater seeping through the ground.) The quality of the groundwater is important as it is Long Island's only source of water supply. Therefore, the quality of recharge is important. The entire Town is in a recharge area, however, the waterfront area is entirely within a "shallow recharge" area. Water recharged in this area tends to move horizontally toward the shoreline and does not move into deep water supply aquifers. Nevertheless, it is important to control the quality of recharge in the shallow flow area in order to maintain the quality of adjoining surface waters. Generally, the most intensive land uses have the most impact on the quality of ground and surface waters. The pollutants from storm water run-off and septic systems usually impair groundwater quality longer than surface water quality because groundwater moves so slowly. Undeveloped areas are important to recharge areas because the quality of groundwater is least impaired in these areas.

The quality of groundwater directly effects the quality of the adjoining surface waters. Therefore, if groundwater quality deteriorates, surface water quality deteriorates which would impact recreation and shellfishing. This effect is already evident in the Nissequogue River which is closed to shellfishing due to pollution from run-off and groundwater pollution from septic systems. The San Remo area seems to be particularly vulnerable because of the amount of clay below the soil. The clay reduces the ability of the sediments to filter the groundwater.

Although storm run-off is only 10% of the stream flow, it can have a large localized impact during a heavy storm. This is evident by the fact that the Nissequogue River is conditionally open for shellfishing in the winter except after storms. It would be



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possible to utilize this resource more effectively if the quality of stormwater run-off could be controlled. The diversity of marine species in the river has declined as the pollution from stormwater runoff has increased. Scallops, blowfish, and porpoise were common in the river until pollution became a problem after the 1940's.

Surface waters are polluted from various sources. It is likely that most of the nitrogen in surface waters comes from groundwater which in turn comes from septic systems and fertilizers. Most of the chlorides, heavy metals and bacteria in surface waters is due to the storm water run-off. In turn, the run-off is contaminated by road salts, animal wastes and substances (e.g., fuels, oils, rubber, metals and asbestos) from motor vehicles. These non-point sources are probably most problematic in areas that have the greatest percentage of impermeable surfaces (roofs and paved areas) such as the Smithtown Central Business District, Jericho Turnpike, 25A and San Remo. Point sources (sewage treatment plants and industries) are not significant pollution threats to the Smithtown waterfront.

Surface water pollution has a negligible effect on groundwater quality. This is due to the fact that the direction of flow of the water is from the groundwater aquifer to the surface water body. The salt water-groundwater interface is very close to the shore itself and affects a few wells. Significant impacts of salt water intrusion would likely occur if the quantity of the groundwater were depleted by excessive pumpage or widespread construction of sewers. Sewer systems divert a significant amount of water that would otherwise be recharged by septic systems. The construction of sewers would reduce the amount of recharge because the likely outfall would be in Smithtown Bay. It has been demonstrated in Queens and in Nassau County and now in Suffolk County's Southwest Sewer District that large sewer systems lower the groundwater levels affecting the salinity of surface waters and nearby groundwaters.

The Town has identified the solid and liquid waste disposal from vessels as a significant pollution threat to the Town's surface waters. The impact is significant because of the large number of boats using the Town's waters. This problem is most critical in the Nissequogue River and particularly in Stony Brook Harbor where tidal flushing is restricted. This type of pollution usually involves fecal coliform and nitrogen which impair the water's value for shellfishing and recreation. This type of pollution also effects the natural ecology of the area.

Water Quality

Water pollution is one of the most important problems in the waterfront area. Although there are no industries discharging into the Town's waters, the surface waters are not as clean as the Town would like them to be. There are no surface waters assigned an A classification under the State's Environmental Conservation Law (ECL). According to the ECL, Class A waters are clean enough to be

best suited as a public water supply source and Class B waters are clean enough to be best suited for primary contact recreation (i.e. swimming). The only Class B waters in the Town are near the source of Sunken Meadow Creek. Most fresh waters in the Smithtown waterfront area are assigned a C classification meaning that these waters are best suited for the propagation, survival and growth of communities of fish, other aquatic life and wildlife and secondary contact recreation, as well as being designated trout waters. The unnamed pond near the Administration Building of the Kings Park Psychiatric Center is classified D under the ECL, meaning that the water is too polluted to be used for the survival and growth of fish and wildlife.

Most of the salt water features in the waterfront are assigned an SA classification indicating that they are clean enough for shellfishing and primary contact recreation. Class SA waters include most of Smithtown Bay and Stony Brook Harbor. The quality appears to be deteriorating. Stony Brook Harbor was once totally available for shellfishing; however, NYSDEC recently closed the area at the southernmost end of the harbor south of Cordwood Path and the Hitherbrook extension. Smithtown Bay around the mouth of the Nissequogue River and the estuarine portions of the River are assigned an SB classification. The SB designation indicates that the Nissequogue River and the offshore waters in the vicinity of the river are too polluted for shellfishing. It is believed that storm water run-off and contaminated groundwater seeping into the River bottom are the principal sources of water pollution.

Flood Hazard and Flood Prone Areas

Flood hazard areas as designated on the Flood Insurance Rate Map (FIRM) identify coastal areas subject to tidal-related flooding in the unincorporated areas of the Town. The FIRM does not include areas subject to river, groundwater, or storm runoff flooding. The 100 year flood hazard areas subject to wave action (V zones) are located adjacent to Smithtown Bay and the Nissequogue River from the Smithtown-Huntington boundary to the vicinity of Oakside Drive. The base flood elevations in these zones range from 14 to 18 feet above sea level. The 100 year flood hazard zones not subject to wave damage (A zones) reach inland from the V zones. The base flood elevation of A zones is approximately 11 to 13 feet above sea level.

The coastal flooding threat to life and property is not as significant in Smithtown as in many other coastal communities because most of the flood hazard areas in the Town are not developed. Most of the land in flood hazard zones is either publicly owned parkland or open space. In Fort Salonga, private property extends to the water, however, most of the structures are protected by the high escarpments. The area near Fresh Pond is an exception because there are no escarpments. Although it does not threaten many homes or businesses, coastal flooding is a significant threat to boats, docks, recreational facilities, and some residential areas (e.g. part of San Remo).

Tidal and Freshwater Wetlands

Wetlands are important hydrologic, ecologic, esthetic, recreational and educational resources in Smithtown. In the waterfront area, tidal wetlands are more extensive than freshwater wetlands. The large tidal wetlands are located in Stony Brook Harbor and the estuarine sections of the Nissequogue River and Sunken Meadow Creek. In the Nissequogue River the tidal wetlands are down stream (north) of Main Street. Tides affect the River between Main Street and Phillips Mill Dam, however, the vegetation indicates that this is a freshwater ecosystem. The tidal wetlands in Sunken Meadow Creek are east of the culvert near the east beach. However, the area west of the culvert is sometimes affected by salt water.

The freshwater wetlands include portions of the Nissequogue River, Sunken Meadow Creek and Fresh Pond. The Fresh Pond wetland is located along the Huntington-Smithtown boundary between NYS 25A and Long Island Sound. The freshwater wetlands located at the western end of Sunken Meadow Creek are not easily accessible to the public as the area is bounded on the south by a large lot residential area and on the other sides by undeveloped portions of Sunken Meadow State Park. The Sunken Meadow Creek wetlands provide an important wintering area for water fowl. The freshwater wetlands in the Nissequogue River include areas near Harrisons Pond, Landing Road, Oakside Drive, NYS 25A and Caleb Smith State Park. The wetlands in the State Park are the largest freshwater wetlands in all of the Town of Smithtown. They include Willow Pond, Webster Pond and Vale Pond. The second largest freshwater wetlands in the Nissequogue River are located between NYS 25A and the Long Island Railroad in Smithtown. The wetlands are fed by a pond in a garden apartment complex to the north and by springs. The water flows through braided streams in a wooded wetland to a pond whose outlet flows under NYS 25A and empties into the Nissequogue River. The wetlands in the vicinity east of Landing Meadow Road are unusual in that they are very high above the tidal wetlands. The presence of large amounts of clay in the subsoil cause groundwater lenses to seep out the hillsides and create sloping freshwater wetlands. The area near Landing Road has two small streams and two small ponds. Harrisons Pond Park is part of a wooded freshwater wetland bordered on the south and east by single-family housing.

About 1/5 of the Town's natural wetlands have been destroyed in the last 40 years due to development. Approximately 100 acres of tidal wetland were filled in the expansion of the parking lots for the beaches of Sunken Meadow. Some wetlands on the grounds of the King Park Psychiatric Center were dredged and filled in the early 1900's as part of the construction of a channel located along the edge of the wetland and upland. In 1960-61, the first channel in the Nissequogue River was created causing the loss of significant tidal wetlands including a marsh and delta at the mouth of the River. In the 1960's extensive wetlands were destroyed in the Stony Brook Harbor to expand the Town marina and to dredge channels between the marina, the boat ramps and Smithtown Bay. In addition, some

wetlands in Caleb Smith State Park were filled when Old Willets Path was relocated in the 1970's, and isolated cases of filling on many small sites has caused the gradual loss of wetlands throughout Smithtown through the mid-1970's.

Since the mid-1970's, very few acres of wetland have been lost due to development or any other cause. The Town has adopted various regulations, policies, and procedures to avoid the loss of wetlands. Development projects adjacent to wetlands have been designed to concentrate the development away from the wetland portion of the property and retain the wetlands in their natural state. Nevertheless, development could cause significant impacts on a few wetlands because there is not enough upland to accommodate the development. These areas include the wetlands north of NYS 25A in Fort Salonga and west of NYS 25A in Smithtown.

While the majority of freshwater wetlands receive protection from NYSDEC and from additional development, they still remain vulnerable to the pressures placed on them by the large population using these areas. The continuance of urban and suburban land uses creates potential road run-off and homeowner related pollution problems. The volume of boat traffic in the Nissequogue River and Stony Brook Harbor has the potential to change the character of the wetlands by providing greater access to the wetland areas. Trails are prone to overuse and are not designed to keep hikers away from the most environmentally sensitive areas. Stepped-up education and enforcement efforts create the potential to improve and reclaim some wetland areas.

Current threats to wetlands include potential development, road reconstruction projects, road run-off pollution and groundwater pollution. Although they help eliminate water pollution, wetlands do not have an unlimited filtering capacity. The continuation of land development causes traffic volumes to increase which, in turn, puts pressures on highway agencies to widen and improve roads in the waterfront area. The combination of the increased impermeable surface area and pollution from higher traffic volumes increases the stress on the wetlands. Similarly, nitrogen in the groundwater reduces the ability of wetlands to screen out run-off pollutants.

Wetlands are vital to the character of the waterfront, and help to ensure continuance of breeding areas for local wildlife, as well as serving as nursing grounds for the fish and shellfish of the area. The positive aspects of the waterfront wetlands can be enhanced by increased maintenance, reduced access in sensitive areas, acquisition, more sensitive development, and increased public education.

4. Significant Fish and Wildlife Habitats

There are many significant fish and wildlife habitat areas in the waterfront revitalization area and its environs (Map 3). The wetlands associated with the Nissequogue River, Sunken Meadow

Creek and Stony Brook Harbor are the most significant wildlife habitats. The Nissequogue River, Stony Brook Harbor and the Nissequogue Inlet beaches are State Significant Coastal Fish and Wildlife Habitats. These areas are important for many species of migratory waterfowl. The woods and abandoned fields throughout the waterfront are important habitats for many birds and mammals. Some species such as red fox and white tailed deer are extremely rare in the Town and would not exist if the amount of habitat areas were to be reduced.

The Nissequogue River, one of four major rivers on Long Island, is fed by natural coldwater springs and flows northward through undeveloped woodlands in Caleb Smith State Park. The coastal segment of this river remains in a relatively undisturbed condition, and has been officially designated by New York State as a "Recreational River" (under Article 15, Title 27 of the Environmental Conservation Law) to encourage preservation and restoration of its natural scenic and recreational qualities. The Nissequogue River area also represents one of the largest coastal wetlands on the north shore of Long Island. This habitat is important to a great diversity of fish and wildlife species throughout the year. During the spring and summer months, the Nissequogue River provides suitable breeding habitat for herons, egrets, Canada goose, mallard, black duck, spotted sandpiper, marsh worm wren, clapper rail, belted kingfisher, and many passerine bird species. There is an osprey (threatened species) nest active in 1984 through 1988 located east of Vail Pond. This biologically productive area also serves as an important feeding area for other species nesting in the vicinity, such as least tern (endangered species), common tern (threatened species), and osprey (threatened species), and for a variety of shorebirds and waterfowl during spring and fall migrations. Endangered species are any species which meet one of the following criteria:

- (1) are native species in imminent danger of extirpation or extinction in New York; or
- (2) are species listed as endangered by the United States Department of the Interior in the Code of Federal Regulations (50 CFR part 17 [see section 182.1(b)(1) of this Part]).

Threatened species are any species which meet one of the following criteria:

- (1) are native species likely to become an endangered species within the foreseeable future in New York; or
- (2) are species listed as threatened by the United States Department of the Interior in the Code of Federal Regulations (50 CFR part 17 [see section 182.1(a)(1) of this Part])

Species of special concern are any native species for which a welfare concern or risk of endangerment has been documented by the Department of Environmental Conservation.

The Nissequogue River is locally significant as a waterfowl wintering area, supporting concentrations of black duck, scaup, mergansers mallard, Canada goose, and mute swan.

Bank swallows inhabit the bluff areas east of Callahan's Beach along Smithtown Bay and along the bluff areas between Long Beach and Short Beach in the Village of Nissequogue.

In addition to having significant bird concentrations, the Nissequogue River is a productive area for finfish, shellfish, and other wildlife. The River supports a significant fall sea-run fishery for brown trout, one of only five such areas on Long Island. Other fish species which use the Nissequogue River as a nursery or feeding area include Atlantic silversides, menhaden, bluefish, striped bass, scup, winter flounder, and blackfish. Significant populations of brook trout and rainbow trout inhabit the upper freshwater segment of the River. These fisheries resources support heavy recreational fishing pressure (from spring through fall) of regional significance. Access to the area for fishing is available from Sunken Meadow State Park west of the inlet, from Short Beach Town Park east of the inlet and in the Caleb Smith State Park. The River also contains abundant shellfish resources, including hard clams, soft clams, and oysters, but these waters are not certified for harvesting shellfish. Diamondback terrapin (species of special concern) nest along the sandy shores of the River near the mouth and use the marshes for cover and feeding. (The NYSDEC has currently closed the area of the river downstream from Landing Road to shellfishing, however, it has been opened on a "winter conditional" basis in the past). The Town is undertaking a shellfish management program wherein the River is used as a spawning ground for shellfish which are transplanted to Stony Brook Harbor.

Stony Brook Harbor is one of the largest and most diverse coastal wetland ecosystems on the north shore of Long Island of regional significance. This area is important to many fish and wildlife species throughout the year. Least tern (Endangered species), common tern (Threatened species), and piping plover (Endangered species) nest in many locations within the harbor, including Porpoise Channel Island (Youngs Island), near the Long Beach Marina, and near the Long Beach boat launch. Approximately 150 pairs of least tern and six pair of piping plover nested in the area during 1983. The population of least terns at Stony Brook Harbor was among the five largest on Long Island in 1983, of statewide significance. Stony Brook Harbor is also inhabited by a variety of nesting heron species, including snowy egret, great egret, black-crowned night heron, and yellow crowned night heron. The heronry is located on the eastern end of Long Beach. As of 1977, Stony Brook Harbor contained some of the largest nesting concentrations of snowy egret and black-crowned night heron on Long Island, with estimates of 128 and 160 pairs, respectively. Other species nesting in the area include Canada goose, herring gull, wood duck, mallard, fish crow, and horned lark. The salt marshes, intertidal flats, and shallows in Stony Brook Harbor are used extensively as feeding areas for birds nesting here and for many other species during migration (shorebirds in particular).

Stony Brook Harbor is an important waterfowl wintering area (from November through April). Aerial surveys of waterfowl abundance in January for the 10 year period 1975-1984 indicate average concentrations of over 375 birds in the bay each year (704 in peak year), including approximately 125 black duck (418 in peak year), along with lesser numbers of scaup, mallard, Canada goose, old squaw, bufflehead, goldeneye, mergansers and mute swan. Based on these surveys, it appears that Stony Brook Harbor is one of the most important waterfowl wintering areas in northern Suffolk County. Waterfowl use of the area during winter is influenced in part by the extent of ice cover each year.

In addition to having significant bird concentrations, Stony Brook Harbor is a productive area for marine finfish, shellfish, and other wildlife. The harbor serves as a nursery and feeding area for winter flounder, striped bass, weakfish, scup, and forage species such as Atlantic silversides and striped killifish (from spring through fall). The harbor is inhabited by concentrations of hard clams, soft clams, American oysters, ribbed mussels, and blue mussels, but most of the area is not certified for shellfishing. Stony Brook Harbor is readily accessible for a variety of fish and wildlife related recreational uses, and is popular among local residents for fishing, birdwatching, and nature study.

The Nissequogue Inlet Beaches are located on either side of the Nissequogue River mouth of Long Island Sound, and consist of undeveloped barrier beach peninsula. This ecosystem type is generally rare on the north shore of Long Island. Short Beach is an important nesting site for least terns (E) and piping plovers (E), with both species present in 1982, 1983, and 1984. In 1983, approximately 170 pair of least terns and 15 pair of piping plovers were observed at Short Beach. An estimated 90 pair of least terns were reported nesting here in 1982. Short Beach was one of the five largest least tern nesting colonies on Long Island in 1982 and 1983. The number of piping plovers in 1983 was the largest concentration documented in New York State that year. In previous years, least tern and common tern (T) nested on the barrier beach west of the inlet, in Sunken Meadow State Park, but human disturbance may have forced these species to move to Short Beach. The Nissequogue River inlet may be an important feeding area for terns nesting at Short Beach. There are no significant human use activities associated with the wildlife resource of this habitat other than the important aesthetic enjoyment of wildlife.

5. Historic Resources

Until the mid-nineteenth century, when ships were the dominant mode of transportation, Smithtown's waterfront was more important to commerce than it is today. Vessels loaded and unloaded goods at

landings near Old Dock Road, the Psychiatric Center channel, Landing Road, Landing Avenue and Main Street. The Main Street area was especially important because it was the furthest upstream that commercial boats could go. The landing was adjacent to one of the few regionally important highways. West of the river, the highway was a toll road (Jericho Turnpike); to the east it was known as Middle Country Road.

In the early 1800's, earthen mill dams and watermills were built on the Nissequogue River creating Phillips Mill Pond and New Mill Pond. Small hamlets developed around these mills. The mills at Phillips Mill Pond were within a few hundred feet of the landing at Jericho Turnpike. The close proximity of the industrial mills to the transportation interface caused this area to develop into the commercial hub of the Town.

Although waterborne transportation was important to the early economy, it was probably the lack of a good harbor that caused Smithtown to be less regionally important than Huntington, Northport and Port Jefferson. These communities were located adjacent to deep, well protected harbors.

As transportation and industrial technology changed, the waterfront lost its commercial and geographic significance. With the advent of the railroad, and then automobiles, the role of boats became less significant in transportation. The development of electrical power meant that industry, which previously depended on water power, could locate near less obsolete modes of transportation. In the 1870's, the Long Island Railroad was extended through Smithtown and a station was built about one mile east of the Nissequogue River. A new commercial center developed around the railroad station and has evolved into the present central business district of the Town. The old hub declined and it is no longer evident that the area was a significant business center. Today this area is on the fringe of the Central Business District.

There are many significant historic sites in the Smithtown waterfront area. In 1981, the Town completed a comprehensive historic sites inventory approved by the State Historic Preservation Office. The inventory identified 65 historic sites in the Smithtown waterfront area. Although none are listed on the National Register of Historic Places, it is likely that many are eligible for listing.

There are many threats to local historic sites including increasing pressures for redevelopment, natural deterioration, lack of funds for maintenance of public sites and insensitive development on adjoining parcels. The combination of increasing population density and the lack of developable land in Smithtown is causing undue pressure to maximize the development of parcels on the waterfront. Therefore, historic sites are viewed as sites with potential for development including subdivision, building expansion and building replacement. The lack of adequate funding for maintenance of

historic structures is a problem in Sunken Meadow State Park, Caleb Smith State Park, and the Kings Park Psychiatric Center. Many historic buildings in these facilities are deteriorating subject to vandalism and are likely to be destroyed in the near future. In fact, the State has been contributing to the loss of historic structures by authorizing the razing of underutilized buildings at the Psychiatric Center.

The historic sites provide many recreational, aesthetic, and cultural opportunities. Preserved and renovated historic sites could be used to promote tourism, as well as enhance the quality of life in the waterfront area. In the case of the Psychiatric Center, the buildings could be adaptively reused by the State for a variety of State needs. Adaptive reuse of these buildings would reduce the land and development costs, as well as environmental impacts, as compared to developing such uses on other sites.

There are numerous other significant historic features associated with the waterfront. Three fish hatcheries were located at Harrison's Pond, Landing Road and in the vicinity of the Thatch Pond Road. Numerous architecturally handsome buildings are located in the Kings Park Psychiatric Center. However, many have been razed, and some are deteriorated. These buildings are by far the most significant brick victorian and colonial revival industrial and institutional architecture in the Town. In fact, this type of architecture is uncommon in all of Nassau and Suffolk Counties. The remains of Fort Salonga, a revolutionary fort, are located near British Colony Road. The original pavilions in Sunken Meadow State Park are probably the best example of art moderne architecture in the Town. In addition, there are many houses in the waterfront area that were built in the 18th and 19th centuries.

The abandoned fish hatcheries may be lost economic opportunities in addition to historic artifacts. It is difficult to determine whether or not fish hatcheries are economically feasible, as DEC recently closed its only fish hatchery on Long Island. Further, it appears that the State Park Commission in Connetquot State Park is adequate for the needs of that park, as well as for the needs of Caleb Smith State Park. Further study is necessary to determine if additional hatcheries are warranted.

Although the old central business district is an historic area, virtually none of its character remains. In the late 1800's, there were about one dozen wood frame commercial and residential buildings in the vicinity of the Long Island Railroad trestle. All of those buildings have been razed or destroyed by fires between the early 1900's and 1981. Most of the business buildings today are located east of the river and are actually an expansion of the current central business district rather than remnants from the old hub of Smithtown. Nevertheless, certain historic characteristics exist and are worthy of preservation. These structures include the Long Island Railroad trestle, the oldest Sycamore tree on Long Island, and the historic houses around Phillips Mill Dam.

In addition to historic resources, the Smithtown waterfront contains archeological resources. Along the Nissequogue River, in particular, there are numerous sites where shell fragments and other indications of a prehistoric habitation have been found. An important Revolutionary War site is located at Fort Salonga.

The density of the sites, as shown on the NYS Archeological Site Location Map, shows the significance and sensitive archeological nature of the area. To prevent destruction of these archeological sites, it is critical that archeological information is available on a site prior to development, and that as development progresses, care is taken to ensure that resources are not recklessly damaged.

HISTORIC SITES IN THE SMITHTOWN WATERFRONT EXCERPTED FROM THE SMITHTOWN HISTORIC SITES INVENTORY

SUNKEN MEADOW STATE PARK - KINGS PARK, PART I

Usage Description

Year-Circa

KP

1. Sunken Meadow State Park District	
1a. Assistant Supervisor's Quarters	1928
1b. Supervisor (Golf Course) Quarters	Prior to W.W.II
1c. Grove Picnic Area Refreshment Stand	1940
1d. Grove Comfort Station	1940
1e. Portions of maintenance buildings	Prior to W.W.II
1f. Superintendent's Quarters	Late 1800's
1g. Main Refreshment Stand	1934
1h. Main Bathhouse	1934

KINGS PARK-PART II

Vicinity-Address

Along the Shore

KP

2. Kings Park District	Kings Park, NY
4. St. Johnland Nursing Home	Sunken Meadow Rd., north side
5. Conklin House I	4 & 6 Upper Dock Road
6. Conklin House II - KPSH	8 Upper Dock Road
7. Thompson House - KPSH	10 Upper Dock Rd., RFD #42
8. Smith House - KPSH	12 Upper Dock Rd., RFD #40
9. 14 Upper Dock Road - KPSH	14 Upper Dock Rd.
9a. Old Dock and Bluff	Old Dock Rd., North end
10. Shea House	91 Old Dock Road
11. Kings Park State Hosp.	Kings Park
12. Doctor's House - KPSH	4th St. at St. Johnland Rd.
13. Obadiah Smith House	St. Johnland Road
15. Dowling House	933 St. Johnland Rd.

"SMITHTOWN" AT HEAD OF THE RIVER

PART I

HR

1. Head of the River District	Smithtown, NY
2. Site of Lewis/Nichols House	North side of W. Main St.

3. Old Post Office (now Skotty's Pub)
4. Road Bridge over Nissequogue River
5. Friede's Riverside Inn
6. LIRR Trestle over Nissequogue River
7. The Smithtown Bull

West Main Street
 South side of W. Main St.
 West Main St.
 LIRR at Jericho Turnpike
 Jericho Tpk. & Rt. 25A

MEADOW ROAD, HEAD OF THE RIVER:

PART II

HR

8. Head of the River Schoolhouse
9. Hill House
10. Ownby House
11. Lawrence House
12. Kelly House
- 12a. Lawrence House

807 Meadow Road
 819 Meadow Road
 821 Meadow Road
 823 Meadow Road
 825 Meadow Road
 829 Meadow Road

JERICO TURNPIKE AREA, HEAD OF THE RIVER:

PART III

HR

13. Williams House (North Shore Eqpt.)
14. Gilmor
15. Cruikshank Carriage House
16. Cruikshank House I
17. Cruikshank House II

321 Jericho Turnpike
 Jericho Tpk. North Side
 536 Jericho Turnpike
 540 Jericho Turnpike
 556 Jericho Turnpike

HEAD OF THE RIVER - PART IV

ROUTE 25A AT HEAD OF THE RIVER

HR 27. Molinoff House

30 Summerset Drive

HEAD OF THE RIVER - PART V

PHILLIPS MILL AREA

HR

28. Head of the River District
- 28A. Phillips/Purick House
- 28B. Remains of Sawmill
29. Phillip's Mill
30. The Mill House
31. Miller's Treadwell Wheeler House
32. Haven House

Smithtown, NY
 Mill Dam Road
 Head of the River
 Mill Dam Road
 5 Mill Dam Road
 4 Mill Dam Road
 6 Mill Dam Road

HEAD OF THE RIVER - PART VI

NEW MILL ROAD AND BLYDENBURGH PARK

HR

33. Blydenburgh/Shaw House
34. Richmond Barn & house
37. Ranger Station
39. New Mill

30 New Mill Road
 49 New Mill Road
 Blydenburgh County Park
 Blydenburgh County Park

FORT SALONGA

FS

1. Fort Salonga District
2. Remains of Fort Salonga
3. Longbotham Lower Farm

Fort Salonga, NY
 45 Brookfield Road
 26 Marion's Lane

9. Brady House
10. Muma House (Punch Bowl Nursery)
11. Cranford House
16. Dreier-O'Brien House
17. Jonas Platt House

- 97 Ft. Salonga Rd. (Rt. 25A)
- 6 Callahan's Rd.
- 123 Route 25A
- 113 Sunken Meadow Rd.
- 141 Sunken Meadow Rd.

LANDING AVENUE, NORTHSIDE

La

1. Aaron's Landing, Lawrence/Phyfe Hs.
3. Potter Estate Superintendent's Cottage
4. Gerli Estate (Smithtown Country Club)
5. Benjamin Darling House
10. Ebenezer Jayne House
11. Jayne/Blydenburgh House
12. Sweet Briar Farm (Vail Blydenburgh Hs.)
13. Ebenezer Jayne II House/Mills

- W. Bank Nissequogue River
- 559 Landing Avenue
- Landing Avenue
- 467 Landing Avenue
- 297 Landing Avenue
- 60 Enkerkamp Drive
- 60 Enkerkamp Drive
- Landing Avenue

NORTHSIDE:

LANDING MEADOW ROAD AND OAKSIDE DRIVE

LA

16. Norman Smith House
17. Sheehan House
18. Thompson House
19. Spruce Hill
20. Ships Hole Farm
- 20a. Waterbury/Gilmartin Estate
22. Othniel Smith House
23. Kenyon Estate, Cottage B
24. Kenyon Estate, Cottage A
25. Kenyon Estate, Main House

- 2 Landing Meadow Rd.
- 4 Landing Meadow Rd.
- 8 Landing Meadow Rd.
- 20 Landing Meadow Rd.
- 38 Landing Meadow Rd.
- Landing Meadow Rd.
- 132 Oakside Drive
- 143 Oakside Drive
- 145 Oakside Drive
- 146 Oakside Drive

EDGEWOOD AVENUE

Ed

2. Seaman House
4. Hare House
5. 123 Edgewood Ave.
6. Ebo Hill
7. Amy Kohlsaatt House
8. Adam Smith House/Higgins Estate

- 85 Edgewood Ave.
- Hadley Drive
- 123 Edgewood Ave.
- 227 Edgewood Ave.
- Edgewood Ave., North side
- 431 Edgewood Ave.

RIVER ROAD, IN THE HAMLET OF SMITHTOWN

Rv

5. M. Staunton House
- 5a. Higgins Garage/Stable
6. Site of Indian Artifacts
7. Rassapeague Club
- 7a. Seaman House
- 7b. Scott Remodeled Barn
8. Rider/Hall House
9. Site of Old Mill

- 115 River Road
- 280 River Road
- Off River Road, along
- Nissequogue River
- River Road
- 318 River Road
- 322 River Road
- 326 River Road
- Off River Road

Source: Smithtown Historic Sites Inventory, 1981.

6. Scenic Resources and Important Vistas

The visual quality of the waterfront landscape is a significant resource of the Town of Smithtown. The natural character of the landscape probably is a major factor in attracting visitors to the recreational facilities and enhances the quality of life of local residents. The landscape can be described in terms of its basic physical components: land and water, vegetation, and structures.

The land and water component consists of the rolling terrain, bluffs, beaches, ponds, streams, the Nissequogue River, Stony Brook Harbor, Sunken Meadow Creek, and Smithtown Bay. These features are mostly in their natural condition which contributes to the beauty of the waterfront. In a few places, the land has been altered in such a way as to degrade the scenic quality of the landscape. Angular slopes at the Old Dock Road Bluffs, resulting from the construction of a parking lot in the 1960's, is out of character with the rest of the land forms in the rest of the area. Dredging for marinas in the Nissequogue River and Stony Brook Harbor have replaced some of the natural organic curves of the water's edge with straight, architectural forms.

The vegetation component consists of trees, shrubs and ground covers. Most of the vegetation in the Smithtown waterfront has natural characteristics consisting of tidal wetlands, freshwater marshes, oak forests, abandoned fields, and transitional vegetation. The fact that Smithtown's waterfront is so heavily wooded is also beneficial to the visual quality because the vegetation obscures many structures that contrast with the natural landscape.

The structural component of the landscape consists of man-made objects such as buildings, roads, and power lines. Smithtown is fortunate in that few structures have been built along the beaches and few structures are visible from the water. The power plant smoke stack and a twelve story building located in the Kings Park Psychiatric Center are visible from Smithtown Bay and parts of the Nissequogue River. However, they are far from the shore and tend to act as landmarks. It is likely that future large, conspicuous structures would tend to degrade the visual quality. Some houses east of Sunken Meadow State Park located outside the waterfront area are visible from the water, however, they do not seem to be significant, as they are small and scattered elements that are set back one half mile from the shore.

There are many significant vistas in the waterfront. The summit on NYS 25A at Sunken Meadow State Park is probably one of the most important vistas of Long Island Sound from Long Island. The view has a good composition and has high value foreground, midground, and background features. It is also important because of its accessibility--about 6,000 cars per day (westbound) drive through this vista. There are numerous other public overlooks along the shore that are not as accessible or impressive as the vista from 25A, but are nevertheless important. They include Callahan's Beach,

Sunken Meadow State Park, and the Bluffs. These vistas lack significant foreground elements as they are located at the tops of escarpments at the water's edge. At least two potentially significant vistas are located on the grounds of the Kings Park Psychiatric Center. One consists of the view down the boulevard, and the other consists of views from the prominence near the water tower.

The elements that give vistas importance include:

- The visibility of water;
- The lack of features that do not fit into the overall scene;
- The presence of conspicuous foreground, midground, and background features;
- The composition of elements in the view; and
- The visibility of the scene (i.e., the number of viewers over time).

The potential visual impact of development in the Smithtown waterfront can be evaluated by the visual contrasts and dominance of the development with regard to its surroundings. In turn, these two components of visual impact can be ascertained by the amount of regrading; the amount of vegetation to be removed; the size, shape, and location of structures; and the characteristics of proposed revegetation. Many studies indicate that the size and color of structures are the most important factors in visual impact. Brightly colored structures tend to cause more visual impact than earthtone structures. Large buildings and buildings located near the water would tend to have more impact than small buildings and buildings located far from the water. These factors are especially important since people using the water are using it principally for recreation and expect high visual quality.

The west end of the Smithtown central business district is a significant visual problem in the waterfront area. The commercial strip, developed in the 1950's and 1960's, strongly contrasts with the overall character of the waterfront. About one dozen buildings of utilitarian character are scattered along the quarter mile stretch of Main Street east of the Nissequogue River. The color of the majority of the buildings contrasts with the color of background vegetation. A few of the buildings are large (a one-story building of 110,000 square feet and a two-story office building) and tend to dominate the scene. Further, the area lacks sufficient landscaping that would reduce the visual clutter and obscure the negative visual elements. Fortunately, sufficient room exists on most of the sites to provide for trees and other planting.

B. EXISTING LAND AND WATER USES

1. Existing Land Uses

Land use in the waterfront area is generally consistent with the zoning. Most of the land is used for parks, open space and one acre

residences. (See accompanying Map 4 - Existing Land and Water Uses.) Higher density residential uses (½ acre lots) are prevalent in San Remo and the Upper Dock Road area. Five isolated commercial uses, including a restaurant, Seafood store two delicatessens, and a tavern are located at the Old Dock Road Park and in San Remo. The business sites in San Remo are non-conforming uses. The principal commercial area in the waterfront is the Smithtown CBD. The western third of the Smithtown CBD is in the waterfront area, however, the uses are not related to the water. The types of uses include filling stations, retail stores, an indoor flea market, taverns and miscellaneous businesses.

The Kings Park Psychiatric Center is a large land use in the waterfront area. The Center comprises approximately 565 acres consisting of patient residences, administrative offices, kitchens, employee residences, a laundry, shops, a power plant, a landfill, recreational facilities, storage buildings, abandoned farm fields, and vacant woods. Although the resident population is now only at 25% of its peak in the 1960's, the Center is still a major facility servicing about 2,500 patients.

The following list consists of those land uses which in some way prevent fishing, boating, swimming, bird watching and other nature recreational activities. The businesses conflict with surrounding uses and may also be significantly contributing to water pollution which degrades the resource for fishing and recreation.

1. Timothy Lane Auto Body, northwest corner of Main Street and Nissequogue River
2. Lahanns Auto Body, south side of Jericho Turnpike
3. Anchor Canvas, south side of Jericho Turnpike
4. Bike Shop, south side of Jericho Turnpike
5. Locksmith business, south side of Main Street 200± west side of Nissequogue River
6. Bar/Restaurant, southwest corner of Main Street and Nissequogue River
7. Private Beaches in the Fort Salonga area
8. Houses on Oakside Drive, Smithtown
9. Residences - Head of the River
10. Kings Park Psychiatric Center

The Kings Park Psychiatric Center property also represents a potentially major conflict. Presently there is little problem, however, if the property is reused for an obnoxious or intensive land use, it would adversely impact recreational and residential uses in and outside of the waterfront.

The high demand for housing on Long Island has exerted pressure for higher density development in and outside of the waterfront. The lack of developable land outside of the waterfront is increasing the pressure for developing in the waterfront area.

Over the years the community has instituted policies and changes to the zoning to protect the waterfront. The Town has had an implicit policy since 1932, when the zoning ordinance was first adopted, to protect the natural character of the waterfront. The waterfront has always been zoned in the most restrictive category. In the 1950's and 60's the Town adopted other techniques to implement its policy of protecting the waterfront, including a land acquisition program to acquire vacant parcels, thus controlling their development. However, since the middle 1970's this acquisition program has been abandoned.

The Town currently administers programs to improve the San Remo area and the Smithtown Central Business District. As previously mentioned, the Town acquired a number of undersized lots during the 1950's and 60's via its land acquisition program, as well as some parkland (Harrison Pond Park). Since the 1960's the Town has undertaken a comprehensive drainage improvement program in the San Remo neighborhood which has resulted in the upgrading of many privately owned parcels. Further, the Town has designated the waterfront area of San Remo as a Neighborhood Strategy Area in the Town's Community Development Block Grant program. This designation facilitates property renovation by providing homeowners with low interest home improvement loans. The Town also has a Commercial Revitalization program for the Smithtown CBD, however activities are mostly planned for the core area of the CBD which is outside of the waterfront area.

Most of the deteriorated uses in the waterfront area have re-use potential on their own. However, the Psychiatric Center property appears to require consolidation with other uses since the State has a policy of phasing out large institutions. It appears that the Psychiatric Center should be developed as part of an overall plan for institutional, municipal, residential, recreational, marine commercial, conservation, and agricultural uses.

2. Water-Dependent and Water-Enhanced Uses

There are numerous water-dependent uses in the local waterfront area. Sunken Meadow State Park is the largest facility with nearly 3 miles of shorefront. Suffolk County has acquired large parcels along the Nissequogue River for open space, which are used for passive recreation (hiking, fishing, photography, etc.). The Town has water-dependent uses including Callahan's Beach, the Bluffs (Old Dock Road Park), Landing Avenue Park, Cruikshank Park, and nature preserves resulting from clustered development. The Town owns Short Beach, Long Beach, and Schubert Beach in the Village of Nissequogue and Cordwood Path Beach in Village of Head of the Harbor. There are two boat clubs on the Kings Park Psychiatric Center property on the Nissequogue River, and a boat club using the Town marina in Stony Brook Harbor. The Suffolk County sewage treatment plant is also a water-dependent use located on the Kings Park Psychiatric Center property.

There are numerous water-enhanced uses in the local waterfront area. There are picnic grounds, food concessions, and a 27 hole golf course at Sunken Meadow State Park. The Town has picnic areas at Callahan's Beach and Landing Avenue Park. The restaurant on Old Dock Road is enhanced by the water. The Kings Park Psychiatric Center and Saint Johnland and Harbor Trees subdivisions all benefit by being near the shore.

The seasonal homes in the vicinity of Upper Dock Road are also water enhanced. Other water enhanced uses include the Smithtown-Setauket Environmental Center, residences at the Psychiatric Center, and residences along the Nissequogue River and in Fort Salonga.

Opportunities exist to increase water-dependent and water-enhanced uses in the Smithtown Central Business District.

3. Public Access and Recreational Facilities

The Town of Smithtown has excellent access and recreational facilities in the waterfront area. Two large State parks are located in the waterfront area and serve the New York City/Long Island Region. Three County parks are part of Suffolk County's green belt between the north shore and south shore of Long Island and are used primarily as open space nature preserves and passive recreation. The Town of Smithtown has four beaches, three of which are located in the Villages of Nissequogue and Head of the Harbor. The Town also has two boat ramps, one marina and two mooring areas located at the mouth of the Nissequogue and in Stony Brook Harbor. In addition, Smithtown owns a 160 acre golf course-swimming pool-catering complex and numerous neighborhood playgrounds and nature preserves.

The amount of publicly owned parkland indicates the excellence of the recreational facilities, however, access could be improved. Approximately 3,100 acres are publicly owned. There are opportunities to increase access to the recreational facilities and natural resources. Some important wetland areas are privately owned and are not accessible to the public. Further, these areas, such as the wetlands north of NYS 25A in Fort Salonga and west of NYS 25A in Smithtown, could be lost by potential development. Public ownership of these areas would enhance access, as well as serve to protect their environmental quality and benefits.

Too much access to environmentally sensitive areas is also a problem. Some wetlands in Stony Brook Harbor and the middle portion of the Nissequogue River are subject to serious degradation due to too much access by boats, particularly power boats. Also, too much access along escarpments east and west of Sunken Meadow are causing significant erosion problems.

As previously mentioned, the State has two large regional parks: Sunken Meadow and Caleb Smith. Sunken Meadow is the third most heavily used beach on Long Island and is the largest on the North Shore having an annual attendance of 1.2 million. This facility

would appear to be adequate in terms of use by the public as only two of the three beaches are normally open. However, it appears that the third beach is closed most often due to the lack of funds, not to insufficient demand. Similarly, the Park has three large picnic areas, one of which has been closed for years. The size of the crowds at the two picnic areas appears to indicate that the third picnic area could be useful on weekends.

Caleb Smith State Park is a nature preserve consisting of approximately 543 acres. Although its usage is low compared to Sunken Meadow, it is heavily used in comparison to other nature preserves. This facility appears to be in high demand by environmentally oriented people.

Suffolk County owns land in the waterfront area in three general areas. The Riverside Conservation Area, south of Main Street, is by far the most heavily used. It is used for canoe launching and fishing. Additional fishing facilities would seem to be warranted as indicated by the high use of this park. The ecosystems of the two other County park areas are too fragile to accommodate active recreational use.

The largest Town facility in the waterfront area is the Smithtown Landing Country Club, consisting of approximately 160 acres. This park includes an 18 hole golf course, three swimming pools, a restaurant, bar and catering hall. This park is heavily used by Town residents and is well liked by the public. Other heavily used Town parks include Landing Avenue, Harrisons Pond, as well as the beaches. In recent years, Callahan's Beach, Short Beach and Long Beach have been closed due to overcrowding, indicating a need for more Town beaches and/or parking facilities.

The Town has a large unmet demand for boating. Although the Town has a marina, two boat ramps and two mooring areas, the boating segment of the population wants better facilities. Additionally, the Long Island State Park and Recreation Commission has expressed an interest in providing a State boat ramp near the mouth of the Nissequogue River. Unfortunately, the Town has had difficulty accommodating these demands because of environmental constraints. Stony Brook Harbor and the Nissequogue River are already heavily used and cannot tolerate additional boating without significant degradation of aesthetic and environmental resources. The Town has conducted numerous studies outlining the adverse impacts that boating has had on river banks and wetlands. It appears that the only locations suitable for accommodating the expansion of facilities are areas that have already been degraded by existing facilities (e.g., the Bluffs and the Kings Park Psychiatric Center area).

Semi-public access is an important part of access to the Town's waterfront. About 6,000 residents of the San Remo and Repalo Park areas have rights to use about one mile of waterfront owned by the San Remo Civic Association on the Nissequogue River. Although there

are no parking facilities, the beach area is used by other Town residents as well. Two boat clubs, including marina facilities, are located on the grounds of the Kings Park Psychiatric Center and are used by about 150 member families. Most of the beachfront in Fort Salonga is owned by its civic association and is available for the use of all residents in the Fort Salonga area.

In summary, much of the Town's waterfront is inaccessible to the public. These access problem areas are located on the south side of Jericho, west of the Long Island Railroad, the east and west sides of the Nissequogue River near Jericho Turnpike and the areas along NYS 25A mentioned above. The chart on the following page summarizes recreation facilities in the Town's waterfront area.

4. Underutilized, Abandoned or Deteriorated Sites

Underutilized, abandoned and/or deteriorated sites are generally located at the Kings Park Psychiatric Center, Sunken Meadow State Park, Caleb Smith State Park, the Upper Dock Road area, and the San Remo area (Map 5). Each area is individually discussed as follows:

At the New York State Kings Park Psychiatric Center, various buildings on the site are no longer used or are partially used. Some of the older buildings are in poor condition and some are historically significant, however most appear structurally sound. The general character of the property is that of a campus-like setting. The property adjoins the water and some of the buildings are in sight of the water.

Sunken Meadow State Park is another land use of large area. The west beach and the upper level picnic area have not been used for many years, except as an overflow for the middle and east beaches and for occasional education activities. The character of the area is open and wooded and the conditions of the structures on the property are fair. In terms of proximity to the shoreline, the west beach is adjacent to the water and the picnic area is approximately one half mile from the water, but has a view of the water.

Caleb Smith State Park has some historically significant structures that are no longer used and are in disrepair. The Park is used for passive recreation, conservation and open space. The condition of the buildings is fair to poor. The general character of the area within the Park is natural and wooded, with some fields. Areas surrounding the Park are predominately residential. The park buildings are sited within twenty feet to one half mile from the water.

RECREATION FACILITIES

Name	Area (acres)	Water Frontage (miles)	Activities
<u>State Parks</u>			
Sunken Meadow	1,344.2	3	Beaches, concessions, playgrounds, 27 hole golf course, picnic grounds
Caleb Smith	<u>543.0</u>	<u>3</u>	Fishing, preserve, museum, X-C skiing
	1,887.2	6	
<u>Suffolk County</u>			
(Landing Road)	113.0	0.2	Nature trail
(Somerset Drive)	66.9	0.4	Nature trail
Riverside Conservation Area	<u>6.0</u>	<u>0.2</u>	Canoe launch, fishing
	205.9	0.8	
<u>Town of Smithtown</u>			
Callahan's Beach	20.9	0.2	Beach, camping, concession, picnic area
Short Beach	51	0.8	Beach, camping, preserve
Long Beach	70	0.9	Beach, ramp, 110 moorings
		0.3	Beach, picnic, marina and yacht club (167 slips), ramp
Shubert Memorial Beach	5	0.1	Beach
Kings Park Bluff	3.7	0.1	Boat ramp, overlook, 90 moorings, trail
Harrison's Pond Park	20	-	Playground, picnic area, preserve
Sweetbriar Farm	52.8	0.2	Preserve, museum, (includes 26.9 acres, nature conservacy)
(Smithtown-Setauket Environmental Center)			
Cruikshank Park	0.6	0.2	Landmark statue of bull
(Nissequoque Overlook)	38.3	0.4	Preserve (from cluster development)
(Mill Dam Road)	13.3	-	Preserve (from cluster development)
Landing Avenue	4.2	0.2	Canoe launch, picnic, playground, fishing
(River Road)	112	-	Preserve (from cluster development)
Smithtown Landing Club	<u>159.3</u>	<u>0.4</u>	18 hole golf course, pools, restaurant
	551.7	3.8	
<u>Other</u>			
Kings Park Psychiatric Center	3**	.2	2 yacht clubs, 120± slips, 1 boat ramp
San Remo	6.8	.8	1 unpaved ramp, playground, picnic
(Fort Salonga beaches)	5	.8	Beach rights to Fort Salonga residents
Smithtown Fire Dept.	<u>1.0</u>	<u>.1</u>	Picnic area
	15.8	1.9	
Total	<u>2,660.6</u>	<u>12.5</u>	

* Facilities shown in parentheses do not have publicized official names; the name shown is the nearest street, development or neighborhood.

** Total area is **565** acres; only 3 acres used for active recreation; not listed as a NYS facility because the clubs are not operated by the State.

The Upper Dock Road area contains an estimated thirty (30) residences. The residences are mostly seasonal and in varying structural conditions. The surrounding area comprises a boat trailer parking area to the west, the Nissequogue River to the north, and the Psychiatric Center (State Hospital) to the east. Some residential properties adjoin the water, and some have a water view.

The San Remo area is a high density residential area comprising many privately-owned small lots. The area is predominately single family in nature with some illegal multi-family uses. Most homes in the area are in good to excellent condition, however, there are a significant number of homes in fair or poor condition. Some of the homes have water views, but most do not.

The Smithtown Central Business District has a concentration of blighting and deteriorating influences, most of which are outside of the waterfront area, and privately owned. The current uses generally comprise mixed commercial. Structural conditions are sound but poorly maintained. The character of the area is suburban commercial, lacking amenities. The proximity of the CBD to the water is very minimal.

5. Agriculture

There is little agricultural land in the Smithtown waterfront area. The largest amount of prime agricultural land is on the Kings Park Psychiatric Center property along NYS 25A. The area is comprised of about 50 acres of abandoned fields. However, it has not been used for agricultural purposes since about 1960. The only active farmland consists of about 20 acres between Landing Meadow Road and the Nissequogue River. Both of these properties have prime agricultural soils consisting of Haven loam and Riverhead and Haven sandy loam, 0-3 percent slopes. It would be possible to continue using both of these parcels for agriculture, however, the Town has expressed an interest in acquiring some of the State Hospital property for a community park. Although neither parcels are in the Suffolk County Farm Land Preservation Program, it is conceivable that the program could be amended to include these properties.

6. Zoning

In 1932, the Town of Smithtown adopted the Building Zone Ordinance which has been the major land use control in the Town since. Regulations in the ordinance cover land uses, dimensional regulations, signs, landscaping, environmental criteria and site plan review. The current ordinance has 17 districts in three major classifications: residential, business and industrial. The current ordinance also has a section on flood hazard regulations adopted pursuant to the Federal Flood Insurance Program.

The Town of Smithtown provides for clustered development in the Building Zone Ordinance and in the Subdivision Regulations. In

the 1950's, the Town amended the Subdivision Regulations in accordance with Section 281 of Town Law and thereby permitted the Planning Board to permit density modification (clustering) in subdivision approval. In 1964, the Town amended the Building Zone Ordinance to permit zone changes for clustering. This process requires an actual zone change to a cluster classification which limits the type of development to single-family homes having lots not smaller than the next least restrictive zoning district. For example, the minimum lot size would be one-half acre for cluster development in a one-acre zoning district. This method is rigid, time consuming, and cumbersome. Accordingly, in 1983 the Town of Smithtown amended the Subdivision Regulations pursuant to Section 281 of Town Law and required the Planning Board to mandate cluster development in environmentally sensitive areas. The Town Board further outlined the areas considered to be environmentally sensitive.

Smithtown has six residence districts allowing for single-family dwellings on minimum plots of 7,500 square feet to one acre, and four multi-family districts allowing for attached dwellings at densities of 6 to 17.4 per acre. Between 1932 and 1950, most of the waterfront was zoned one-half acre which was the Town's most restrictive category at that time. In 1950, most of this land was upzoned to one acre. There are some one-half acre districts in Fort Salonga and along the Nissequogue River between Mill Dam Road and Landing Avenue. A significant one-quarter acre residential district is located in the San Remo neighborhood and in the vicinity of Upper Dock Road. This area was zoned at high density as a result of a map filing for San Remo prior to the adoption of the zoning ordinance. The filed plan contained about six thousand 20' x 100' lots.

Only two sections of the waterfront are commercially zoned. A Neighborhood Business District consisting of approximately one-half acre is located at the end of Old Dock Road, and the western end of the Smithtown Central Business District (CBD) is located in the waterfront area. The CBD zoning consists of Neighborhood Business and Central Business. Attempting to reduce potential environmental impacts, the Town recently re-zoned some neighborhood business and heavy industry to townhouse residential. The business zoning consists of about 25 acres of which nearly half is vacant. There is also a small section of Central Business on the south side of Jericho Turnpike west of the Long Island Railroad trestle. This area consists of three old businesses (a repair garage, a canvas shop and a bicycle shop) and one residence. This zoning appears inappropriate in light of its close proximity to the Nissequogue River and adjacent wetlands. Approximately 11 acres on the north side of 25A and Fort Salonga is zoned Neighborhood Business. All but one acre is vacant and nearly half of the vacant land is wetland. Accordingly, for environmental reasons the zoning appears to be inappropriate. Business development in this location is likely to destroy valuable wildlife habitats and cause impacts on ground and surface waters. Zoning in the Town's waterfront area is illustrated on Map 6.

7. Fishing

Fishing Resources in Smithtown

a. Commercial and Recreational Shellfishing

- . mussels - found in shallow water; of minor significance in Town
- . hard clams - found in shallow water; most significant of shellfish in Town; cleanest shell fish
- . soft clams - significant in Town
- . lobsters - found in deep water at mouth of Stony Brook Harbor
- . oysters - found in shallow water; most vulnerable to pollution

b. Recreational Finfishing

Recreational finfishing is a seasonal activity and includes bluefish, flounder, fluke, striped bass, blowfish, and snapper. All can be found in the Nissequogue River, Stony Brook Harbor, Smithtown Bay, and Long Island Sound. These fish are found in Smithtowns waters primarily on a seasonal basis.

Fishing Related Sites and Access Methods

a. Long Beach

In 1975, the Town began sinking barges and tires north of Long Beach in order to develop a reef. Since then, a significant increase in the amount of fish in the area has been reported, increasing recreational fishing and diving.

Long Beach also provides a floating dock, boat ramp, marina, and surf casting.

b. Short Beach

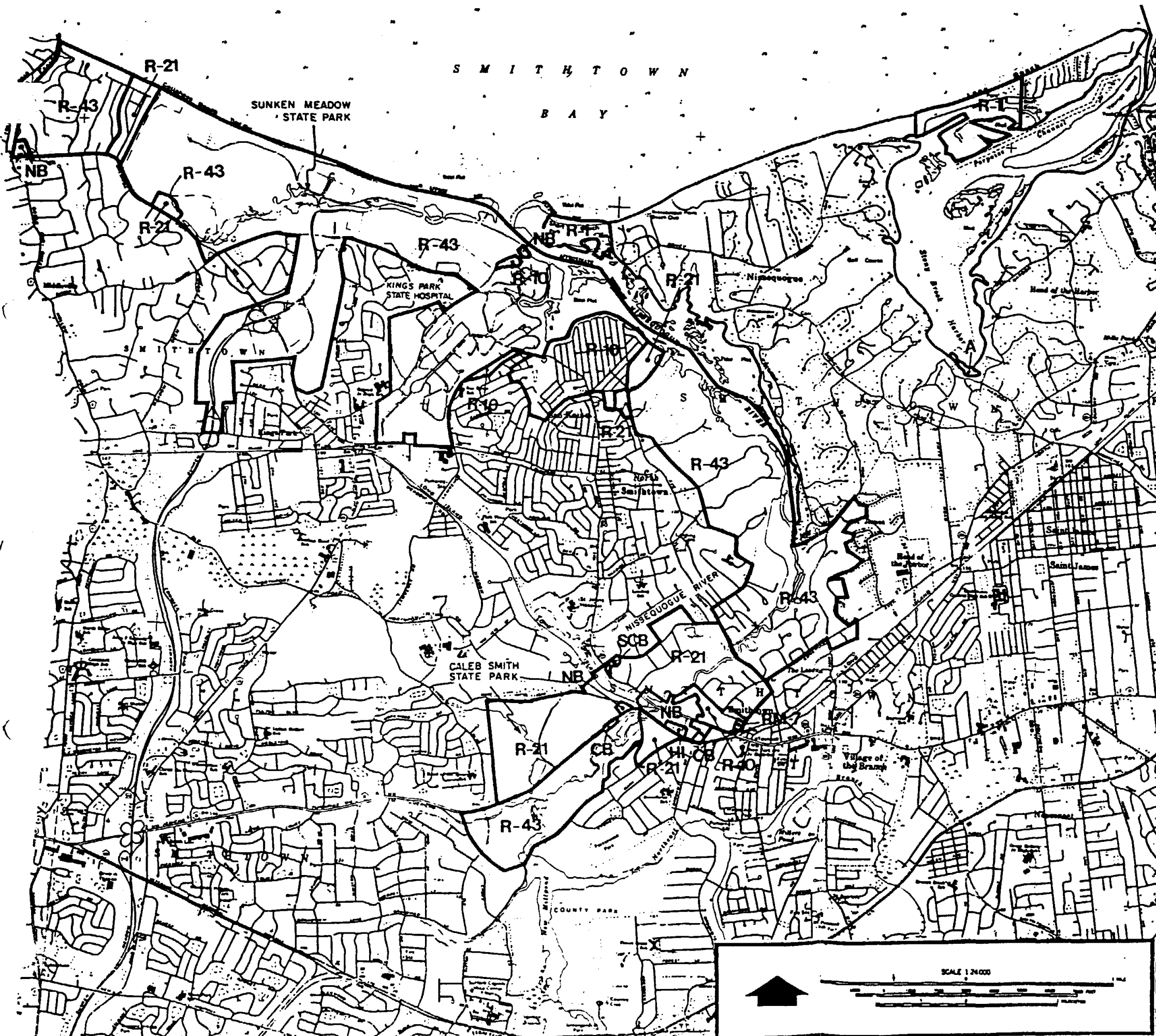
Short Beach provides access for surf casting.

c. Kings Park Bluff

The Kings Park Bluff provides a ten lane boat ramp as well as one small dock.

d. State Parks

Sunken Meadow State Park provides access for surf casting and fly fishing; Caleb Smith State Park permits fly fishing in the river and Vail Pond and has a children's fishing area on Willow Pond.



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MAP 6

Local Waterfront Revitalization Program

Town of Smithtown Suffolk County, NY

RPPW Raymond, Parish, Pine & Weiner, Inc.

Planning & Development Consultants, Tarrytown, NY

ZONING

TOWN:

- R 43 One Family, (1 acre Residential)
- R 21 One Family, (1/2 acre Residential)
- R 10 One Family, (10,000 sq. ft.)
- RM 7 One & Two Family, (7,500 sq. ft.)

- CB Central Business
- NB Neighborhood Business
- SCB Shopping Center Business

- HI Heavy Industry

VILLAGE OF NISSEQUOGUE:

- R 1 One Family, (1 acre Residential)

VILLAGE OF HEAD OF THE HARBOR:

- A One Family, (2 acre Residential)

— Local Waterfront Revitalization Boundary

e. Smithtown Bay

The bay area is used for trolling, party boats and some commercial fishing.

f. Stony Brook Harbor and Nissequogue River

The salt water portions of the Harbor and River are used for surf casting, bottom fishing, and eel fishing. Shellfishing is permitted in the River during the winter months.

Aquacultural Activities

Aquacultural activities are necessary to replenish the supply of unpolluted fish in the Town's waters for both recreational and commercial use.

The following outlines aquaculture activities that are or have been undertaken in the Town. Many of these activities are carried out in Stony Brook Harbor.

- a. shellfish seeding - shellfish (1 to 10 mm size) are purchased from a hatchery and spread in an area that has been depleted in shellfish
- b. racks (floating structures) - small seed clams are planted in the sand beds to provide a higher clam survival rate
- c. "grow out" - to protect shellfish from predators, netting is placed in a particular area; gravel placed on the sand bed is also employed for additional protection.
- d. spawning stock - clams that are ready to spawn are relocated from cold to warm water.
- e. transplanting - polluted shellfish are placed in clean water allowing them to cleanse themselves.

Future Demand for Commercial and Recreational Fishing

Although the demand for commercial and recreational fishing has continued to grow in Smithtown, there are certain constraints on these resources:

- a. Pollution - Increasing pollution is adversely affecting both shellfish and finfish. Pollutants include:
 - . oil spills (oil coats the gills of fish resulting in death by suffocation);
 - . pesticides;
 - . fertilizers (overabundance of nitrogen in fertilizers can be lethal to fish);
 - . coliform from septic tank and vessel wastes (overabundance of coliform causes severe illness in humans if coliform infected fish are eaten).

- b. Overfishing - Overfishing is the major cause in the decline of oyster production. The institution of quotas and leasing grounds to private parties can aid in protection of the oyster population.
- c. Habitat Loss and Estuarine Deterioration - The dredging, filling, and draining of wetlands and waterways has resulted in some loss of habitats and degeneration of estuaries. Between 1950 and 1975 there was an estimated 20% loss of estuarine habitat caused by dredging as well as natural events. The problem continues today, and it is estimated in recent years that Sunken Meadow Creek has been reduced from 200 acres to 100 acres, the Nissequogue River from 1,100 acres to 900 acres, and Stony Brook Harbor from 1,200 to 1,100 acres.
- d. Sedimentation - Increasing sedimentation caused by dredging can significantly alter physical compositions of habitats. Sedimentation essentially creates new habitats and can cause problems for shellfish:
 - . Dredging causes increased turbidity of water which permits minimal light penetration necessary for photosynthesis. Without proper light for photosynthesis, the food source for shellfish (plankton) cannot grow, and shellfish die.
 - . Sediment can also cover shellfish beds which then affects other species in the food chain who depend on shellfish for food.
- e. Changes in Salinity - Too much or too little salinity is hazardous to reproductive and survival patterns of estuarine inhabitants. Increased salinity can be caused by industrial or commercial development which uses large quantities of freshwater. Conversely, if urban freshwater run-off is high, salinity will decrease.

Preservation and Improvement of Resources

To meet the needs of the public, fish resources must be preserved and improved. Pollution can be prevented and habitats protected through augmenting existing regulations and developing stricter penalties. Improving methods of resource management should be achieved with the assistance of the Smithtown Baymen Association. The "Baymen" were created in the late 1970's as a lobby group to solicit funds from the State for research and development of the Town's coastal waters.

8. HUNTING

Smithtown Bay

This is one of the more productive sea duck hunting areas in the Long Island Sound.

Stony Brook Harbor and Nissequogue River.

Both Stony Brook Harbor and the Nissequogue River are used heavily by waterfowl hunters. Puddle ducks, especially black ducks, are the main quarry; diving ducks, such as scaup and bufflehead, and Canada geese are taken on occasion.

Hunting-Related Sites and Access Methods

Ramp access for waterfowl hunting should be included and maintained.

C. TRANSPORTATION

1. Highways

The waterfront is well served by major highways. Sunken Meadow Parkway is the most significant road serving the waterfront area. Most of the visitors to Sunken Meadow State Park, the largest recreational facility in the Town's waterfront, rely on the Sunken Meadow State Parkway for access. It is the only north-south limited access highway in the Town of Smithtown. It connects with the major east-west highways such as the Long Island Expressway, the Northern State Parkway and the Southern State Parkway. The Sunken Meadow State Park is the northern terminus of the Parkway. The Parkway also has interchanges with other major east-west roads such as NYS 25A and CR11 in Kings Park, and NYS 25 Commack. The Parkway has sufficient capacity to increase the utilization of Sunken Meadow State Park and the Town's waterfront. The Parkway is in good condition and can accommodate a significant increase in traffic volume.

Two east-west state highways also serve the Town's waterfront. NYS 25A (Fort Salonga Road) is generally a two lane road approximately 1 to 2 miles from the north shore of Long Island. It is designated by New York State as a scenic highway and is a resource as a tourist attraction. Callahan's Beach, Sunken Meadow State Park, and Kings Park Psychiatric Center front on 25A. Over-development of vacant land along 25A would degrade its scenic value as well as reduce its usefulness for recreational access. NYS 25 (Jericho Turnpike) is a major commercial artery about 4 miles south of 25A. It merges with 25A in the waterfront at the Nissequogue River and is generally four lanes in width from New York City to the east end of the Smithtown Central Business District. Caleb Smith State Park and the Suffolk County Riverside Conservation Area are the major recreational facilities fronting on Jericho Turnpike. Jericho Turnpike has little potential for increasing tourism due to the very high existing and projected traffic volume, traffic congestion, as well as the visual blight west of Caleb Smith State Park and east of the Nissequogue River.

Numerous Town-owned arterial streets serve the waterfront area, however these streets have little direct contact with the water's edge. Town arterial streets providing access to the waterfront area include Sunken Meadow Road, St. Johnland Road, Old Dock Road, Landing Avenue, Edgewood Avenue, and Nissequogue River Road. These winding streets are residential or rural in character. Their potential to accommodate increased tourist-related traffic is limited due to the neighborhood concerns for safety and quality of life. Sunken Meadow Road is particularly narrow and has limited site distances. Rural characteristics are the road's principal value as a scenic resource. Nevertheless, River Road, St. Johnland Road, and Old Dock Road accommodate high levels of beach and boat-related traffic in the summer months.

2. Other Public Transportation

Mass transportation does not adequately serve the needs of the Smithtown waterfront. Although the Port Jefferson Branch of the Long Island Railroad goes through the waterfront at the Nissequogue River, the nearest station is nearly 1 mile east of the River. The Long Island Railroad has three stations in Smithtown. The Kings Park Station is about 1.5 miles from the beaches of Sunken Meadow State Park. The Smithtown Station is nearly 1 mile from the Nissequogue River and the St. James Station is about 2-3 miles from Short Beach and Long Beach. There is little public transportation between the railroad stations and the recreational facilities. Service on the Railroad is good, having 20 minute headways during rush hours, 90 minute headways on weekends and 80 minute headways at other times. The Railroad is accessible to literally millions of mass transportation dependent people in the New York City area who could benefit by improved access to the waterfront. Jamaica Station is about 60 minutes from Kings Park, 68 minutes from Smithtown and 75 minutes from St. James.

Proper promotion and utilization of the Railroad could significantly improve access of disadvantaged people to the State's waterfront. The demand for Sunken Meadow is indicated by the fact that about 100 buses from the New York City area enter the State Park per weekend. In the summer months, it may be feasible to provide shuttle bus service between the Kings Park Station and the State Park. It is doubtful that this type of operation would be feasible at the Smithtown or St. James stations as facilities near those stations do not generate nearly as much use.

The Suffolk County Bus Transit System goes through the waterfront area at the Nissequogue River. Route S-56 is a generally east-west route connecting Commack, Kings Park, Smithtown, and the Smithhaven Mall, and uses Indian Head Road, 25A, and 25. Route S-58 is an east-west route using Route 25 connecting Commack, Smithtown, and the Smithhaven Mall. Route S-45 is a north-south route from Bay Shore to the Smithtown railroad station. Headways are about 60 minutes. Improving routes or the frequency of

service is not likely to significantly enhance access to the waterfront because of the suburban sprawl-type population density and the small proportion of the population that uses buses in Suffolk County.

Numerous people visit the Smithtown waterfront via bicycle, however, bicycle access is generally considered inadequate. Biking is hazardous on the Town arterial roads because of the combination of 28 foot-wide pavements, high traffic volumes, 40 mph speeds and limited sight distances. The most hazardous area for biking in the Town waterfront area is on Route 25 between Edgewood Avenue and Meadow Road. Biking between the eastern and western portions of the Town's waterfront can be significantly improved if the hazards in this area were reduced. Bike travel is safe, convenient, and pleasurable at the Kings Park Psychiatric Center and in Sunken Meadow State Park. Bicycling could be encouraged at these large facilities to accommodate the demand.

D. PUBLIC FACILITIES

1. Public Water Facilities

The waterfront area is one of the only areas in Smithtown which does not have extensive public water supply mains. This is primarily due to the fact that the waterfront area has a greater proportion of public land, low density residential land use and vacant land. Sunken Meadow State Park, the Smithtown Landing Country Club, parts of Fort Salonga and the area between Landing Road and Landing Meadow Road do not have public water. The Upper Dock Road area and Kings Parks Psychiatric Center are served by the Kings Park Psychiatric Center water supply system. San Remo and Caleb Smith State Park are located in part of the Smithtown Water District. The area around the Smithtown Central Business District is served by the Suffolk County Water Authority which is the sole supplier of water to the Smithtown Water District. Groundwater is the sole source of water on Long Island. In the Smithtown waterfront, private wells draw water generally from the Upper Glacial aquifer. The groundwater in Smithtown is believed to be generally less contaminated than the groundwater in western Suffolk, however, the Upper Glacial is more polluted than deeper aquifers. The Upper Glacial is most vulnerable to contaminants because it is nearest to pollution sources such as septic systems. Public water wells draw water from the Magothy aquifer. The Magothy is generally cleaner and less vulnerable to pollution than the Upper Glacial.

Unlike many coastal communities, over-pumpage is not a concern in the Smithtown waterfront area. Over-pumpage of fresh groundwater near the shore often causes salt groundwater to intrude under the land. The low population density in the Smithtown waterfront reduces the likelihood of this problem. High density areas, such as the Kings Park Psychiatric Center, San Remo, and the CBD, are served by public water supply systems which have wellfields

located far inland. Further, few uses requiring large quantities of water (e.g., restaurants) are located adjacent to the shore.

Groundwater contamination appears to be a more significant potential problem than excessive pumpage. High density areas without sewers are likely to pollute the groundwater with nitrogen compounds. Toxic and hazardous substances are often found in household products and often find their way into the groundwater via septic systems. A landfill for fly ash is located on the grounds of the Kings Park Psychiatric Center and may be a locally significant impact on the groundwater. The NYS Office of Mental Health is proposing to have tests run in the area of the landfill to determine if groundwater is being affected. Groundwater pollution is generally regarded as undesirable, however, it is not a potential health problem unless it is located near wells. Therefore, the greatest potential for health problems is in the areas such as Fort Salonga and the Psychiatric Center.

There are no plans to extend the water mains, however, mains may be extended by developers near Landing Meadow Road if that area is ever developed. The Suffolk County Water Authority has expressed interest in constructing wellfields in Sunken Meadow State Park. The Water Authority feels that its existing wellfields may become contaminated because they are located in densely populated areas. The State Park would act as a watershed area and protect the wellfields from contamination.

2. Public Sewer Facilities

The former Kings Park Psychiatric Center sewage treatment plant serves the Psychiatric Center, Saint Johnland Nursing Home, and a residential subdivision. The plant is a tertiary plant and its outfall is about one mile offshore. These are among the only sewered areas in the Town or along the north shore of Suffolk County. The unsewered areas in the coastal portion of the Town are serviced by on-site disposal systems.

The sewage treatment plant in Kings Park is underutilized and can accommodate more users. According to the Suffolk County Health Department, the current use of the plant is 0.8 million gallons per day (MGD). The design capacity of the plant is 2.2 MGD. Therefore, the plant is used only to about 40% of its capacity. Other uses outside of the waterfront area (e.g., 200 unit condominium complex) are already anticipated to tie into the sewage treatment plant.

The Long Island Regional Planning Board completed a Comprehensive Waste Treatment Management Plan (208 Study) which concluded that the use of septic systems in high density areas adversely affects the quality of ground and surface waters. This is due to the fact that on-site septic systems do not adequately filter nitrogen and other potentially harmful contaminants from the waste water. The permeable geology of Long Island does not have sufficient

filtering capability to adequately protect the groundwater quality in areas where population density is high. The 208 Study identified sewage as one of the two most common sources of groundwater pollution and concluded that on-site septic systems should not be permitted where density exceeds two dwelling units per acre. Due to low intensity zoning, this is not a problem in the waterfront area except for San Remo where zoning allows a density of 4 families per acre. The problem in San Remo is compounded by the fact that clay lenses create additional drainage problems.

This issue does not significantly constrain development in the waterfront, as most of the waterfront is already developed at the densities permitted under the zoning. There are no proposals for sewerage a wider area except for developers of condominiums who wish to connect to the existing sewage treatment plant in King Park. For more information, please refer to the following table. Public water and sewer service areas are illustrated on Map 7.

SEWAGE TREATMENT PLANTS IN AND NEAR THE WATERFRONT AREA

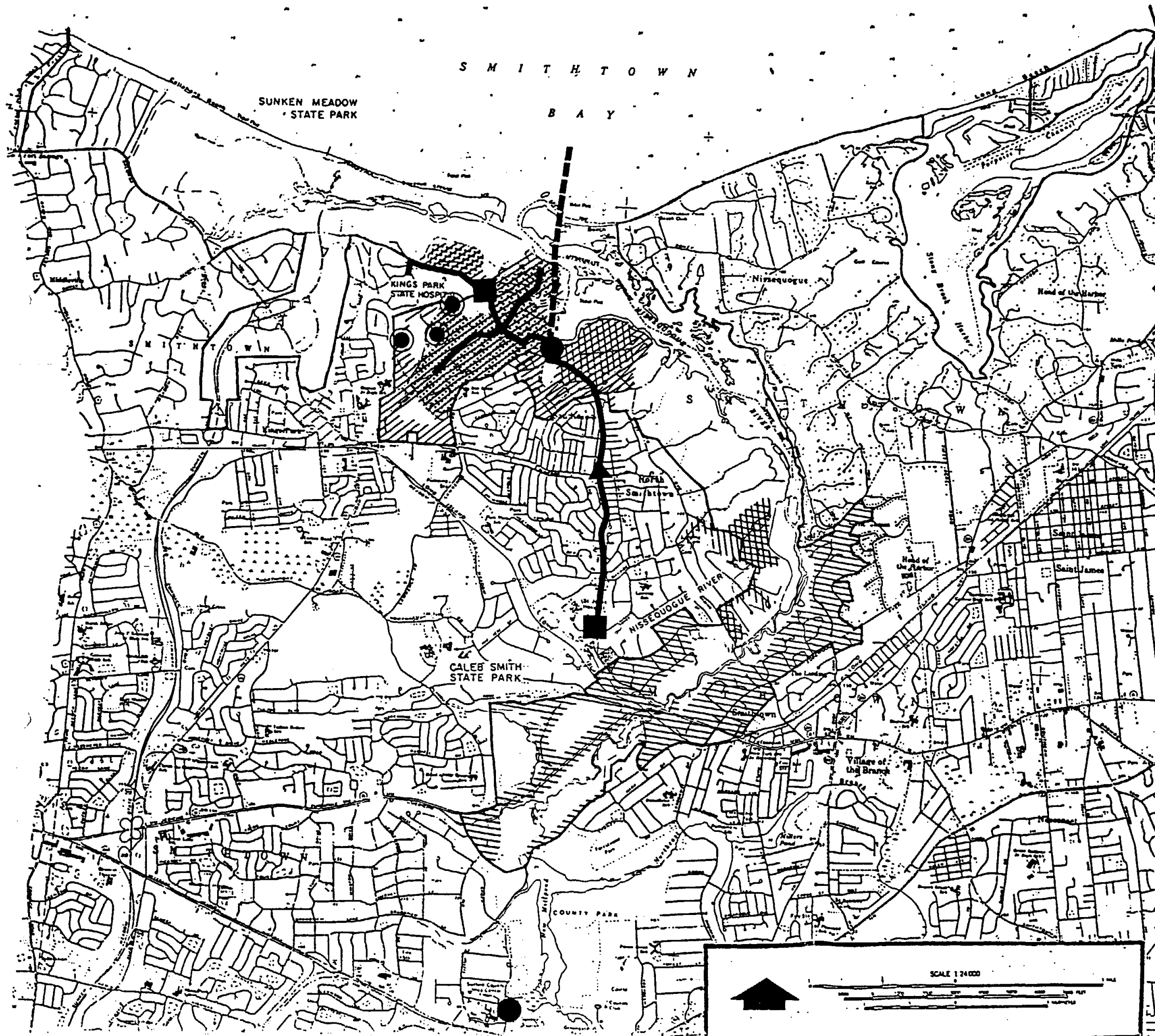
1. S.C.S.D. #6 - Kings Park
N/s Saint Johnland Rd.
Kings Park
Type: Activated Sludge
Design Flow: 2.2 MGD
Actual Flow: 0.8 MGD
Treatment Level: Tertiary
2. Suffolk County Center - Hauppauge*
Veterans Memorial Highway, Hauppauge
Type: Extended Aeration - Denitrification
Design Flow: 0.2 MGD
(Outside Waterfront Area)
3. Community Hospital of Western Suffolk*
Smithtown By-Pass & Rte. 111, Smithtown
Type: Extended Aeration
Design Flow: 0.093 MGD
(Outside Waterfront Area)
4. Lutheran Nursing Home Center for the Aging
Rte. 25A, Smithtown
Type: Extended Aeration
Design Flow: 0.1 MGD

*Located outside of the local waterfront area boundaries.

SPECIFIC ISSUES, PROBLEMS, AND OPPORTUNITIES
OF THE WATERFRONT REVITALIZATION AREA

A. Issues

1. New York York State Office of Parks, Recreation and Historic Preservation (OPR) expressed the intention of constructing a boat ramp on the north shore of Long Island. OPR feels that the Kings Park Psychiatric Center property is the most appropriate location because the land is already State-owned. However, the Town has expressed opposition to this on the belief that this would result in increased traffic on Town streets and the displacement of two private boat clubs having a total of 200 members. Presently the only boat ramps on the north shore are restricted to residents of the municipality in which they are located, therefore, a south shore resident could not launch a boat on the north shore. Further, the access to the boat ramp would be through the Psychiatric Center and would potentially endanger the safety of the residents. However, if the boat clubs were displaced, that would significantly increase pressure on the Town of develop more boat facilities which would in turn cause significant adverse environmental and fiscal impacts. Apparently, there may be room in the boat basin to accommodate the two boat clubs and the proposed boat ramps. The Long Island State Parks and Recreation Commission (LISPRC) has proposed an alternative wherein it would assist the Town in expanding the Town boat ramp and park facilities at the Old Dock Road Park bluffs. As a condition of assistance, the LISPRC would require that the boat ramp and only the new park would be accessible to non-residents.
2. A perennial issue is whether or not to dredge the channels in Stony Brook Harbor and the Nissequogue River. Boaters frequently complain that these channels are too shallow and are being filled in. Canoeists oppose dredging because power boating threatens the value of the water for canoeing. Conservationists oppose dredging because dredging and the resulting increase of power boat use causes adverse effects on the environment. These effects include a loss of productive bay bottom sedimentation and tidal marshes. Previous dredging operations have resulted in significant loss of valuable wetland habitats by actual removal of the wetlands or by habitats being buried under the spoil.
3. The possibility of constructing a bridge from Long Island to Connecticut has been a controversial issue. The Long Island business community has advocated the bridge to New England to avoid the bottle-neck in New York City and to improve access to the New England market. Sunken Meadow State Parkway has often been mentioned as a viable location. It has been said that the construction of a bridge anywhere across the Long Island Sound would cause very significant short term and long term environmental impacts to fish and wildlife habitats as well as tidal and freshwater wetland resources in the coastal area. Moreover, the



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Local Waterfront Revitalization Program

MAP 7










Town of Smithtown

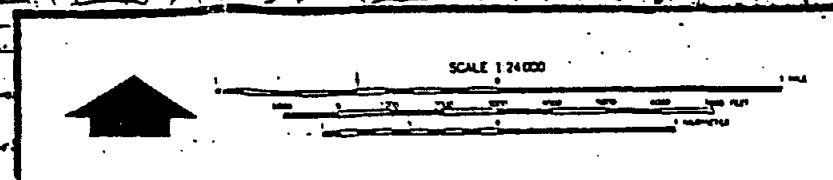
Suffolk County, NY

RPPW Raymond, Parish, Pine & Weiner, Inc.

Planning & Development Consultants, Tarrytown, NY

PUBLIC WATER AND SEWER SERVICE AREAS

-  Area Served By Public Water System
-  Area Served By Public Sewer System
(Within 200' of a Main)
-  Proposed Sewer Service Area
-  Sewage Treatment Plant
-  Pumping Station (Sewage)
-  Sewer Main
-  Direction of Flow
-  Water Supply Standpipe
-  Outflow Pipe



construction of a bridge at Sunken Meadow would seriously harm the recreational value of this State park. Sunken Meadow State Park is the third largest park on Long Island and the largest park on the north shore, with an annual attendance of about 1.2 million.

4. High waves in narrow channels impact upon the shoreline with considerable energy and have a potential to cause substantial erosion. Physical impacts of waves generated by boats depend on such factors as the size and shape of the boat, boat speed and draft, water depth, location of boats in relation to shoreline, and width of the channel. Generally, a boat travelling fast in shallow water, close to the shoreline, generates the highest waves, and results in shoreline erosion. Erosion, and the additional sedimentation due to erosion, can adversely affect the environment and necessitate additional dredging. Therefore, the increasing use of boats in the Nissequogue River, as well as exceeding speed limits is becoming an important issue to the Town.
5. The New York State Department of Environmental Conservation is proposing to develop a State-owned landfill on Long Island, due to the lack of dump sites for incinerator ash in Nassau and Suffolk Counties. The existing ashfill on the Kings Park Psychiatric Center property is frequently cited as a possible location for a regional ashfill, as it is currently State-owned. This site (including its surroundings) is generally residential, recreational, and institutional in nature, having insufficient access for truck transportation. The Town is opposed to the possible expansion of the existing ashfill due to its incompatibility with surrounding land uses, as well as potential environmental and traffic problems that could impact the area.
6. Protection of groundwater is very important since it is the principal source of water for the Town of Smithtown. At present, most of the coastal area is served by municipal and individual/private wells. The municipal wells, operated by the Smithtown Water District and Suffolk County Water Authority, pump water from the Magothy aquifer, a plentiful source of good quality water. Municipal wells serve the San Remo area and areas south of Landing Meadow Road.

Individual private wells are located in areas west of Sunken Meadow State Park, and along the Nissequogue River, north of Landing Meadow Road. Most of these private wells pump water from the Upper Glacial aquifer, which has experienced significant water quality deterioration. Most of the individual wells are not deep enough to reach the level of the Magothy aquifer, largely because of the costs involved.

At this point in time, the Magothy aquifer has not been contaminated. However, any further contamination of ground water by any land use must be avoided, and some steps must be taken to help current residents that have contaminated water supplies.

7. The adaptive re-use of the underutilized portions of the Kings Park Psychiatric Center has become an important issue to the Town. The Center is sited on 500± acres of property in the coastal area, and is currently underutilized. In fact, it has decreased in population from approximately 10,000 patients in the 1960's to a population of 2,000 - 3,000 today. Although it is unknown at present how the State anticipates using the site in the future, the property has a significant development potential. The property contains many vacant and underutilized buildings, scenic vistas, and boating facilities with access to a dredged channel. In order to best determine the future use and/or adaptive reuse of the property, the Town is presently considering undertaking a development study of the Kings Park Psychiatric Center property.

B. Problems

1. Water pollution in the Nissequogue River and its tributaries is one of the most important problems in the waterfront area. Although there are no industries discharging into the Town's waters, the surface waters are not as clean as the Town would like them to be. There are no surface waters assigned A or B classification under the State's Environmental Conservation Law (ECL). According to the ECL, A Class waters are pure enough to be best suited as a public water supply source and B Class waters are clean enough to be best suited for contact recreation (i.e. swimming). The highest quality fresh surface waters in the Smithtown waterfront area are assigned a C Classification meaning that these waters are best suited for the propagation, survival and growth of communities of fish, other aquatic life and wildlife and secondary contact recreation as well as being designated trout waters. The unnamed pond near the Administration Building of the Kings Park Psychiatric Center is classified D under the ECL, meaning that the water is too polluted to be used for the survival and growth of fish and wildlife.

The salty and brackish portions of the waterfront are classified as B, meaning that they are sufficiently unpolluted, and best suited for primary contact recreation. Despite an SB designation, the Nissequogue River and the offshore waters in the vicinity of the river have been closed for shell fishing since around 1953. It is believed that storm water run-off and groundwater exfiltration into the river bottom are the principal sources of water pollution.

2. Groundwater contamination appears to be a significant potential problem. High density areas without sewers are likely to pollute the groundwater with nitrogen compounds. Toxic and hazardous substances are often found in household products and often find their way into the groundwater via septic systems. A landfill for fly ash is located on the grounds of the Kings Park Psychiatric Center and may be a locally significant impact on the groundwater. Groundwater pollution is generally regarded as undesirable,

however, it is not a potential health problem unless it is located near wells. Therefore, the greatest potential for health problems are in the areas such as Fort Salonga and the Psychiatric Center.

There are no plans to extend the water mains, however, mains may be extended by developers near Landing Meadow Road if that area is ever developed. The Suffolk County Water Authority has expressed interest in constructing wellfields in Sunken Meadow State Park. The Water Authority feels that its existing wellfields may become contaminated because they are located in densely populated areas. The State Park would act as a watershed area and protect the wellfields from contamination.

3. The commercial development at the west end of the Smithtown Central Business District (CBD) is a source of many problems in the waterfront area. Certain land uses in the CBD such as filling stations, retail stores, a flea market, and taverns, are not compatible with the nature of the Nissequogue River. Main Street and Jericho Turnpike (NYS 25 and 25A) are believed to be significant sources of storm water run-off pollution. The traffic volume, 30,000 plus or minus AADT, along NYS 25 and 25A in the Town of Smithtown, creates high noise levels, thus detracting from the recreational value of the river.
4. Existing and potential development in flood hazard areas represents significant threats to life, property, public health and safety. Most of the flood hazard areas in the Town are publicly owned and undeveloped and will remain undeveloped. However, the San Remo area has many small vacant lots which are privately owned. This area is already developed at a high density and further development would be hazardous.
5. Active erosion of the escarpments facing Smithtown Bay is a problem that should be addressed. Nearly all land adjacent to the escarpments is developed. This problem is most significant in Fort Salonga west of Callahan's Beach where there are approximately 20 houses on the top of the bluffs which are in danger of being damaged by erosion. Another problem location is the vicinity of Upper Dock Road where escarpments are eroding as a result of storms, winds, etc. There is also erosion caused by heavy usage of the "Green Belt" trails between the Kings Park Bluff and the Sunken Meadow State Park.
6. The existing facilities for recreation boating do not meet the needs of the people. The Town started to reconstruct the ramp at Old Dock Road Park bluffs in the fall of 1984. However, there is insufficient parking for boat trailers. On many weekends each summer, trailers are parked to nearly the intersection of Old Dock Road and Saint Johnland Road. The Town has a 10 year waiting list of about 800 boaters who desire to use the marina at Long Beach. Although there is a demand for more boating facilities, the Villages of Head of the Harbor and Nissequogue are impacted by the boaters trailering the boats through the villages.

7. Deteriorated conditions exist in certain parts of the waterfront area. The small residential neighborhood between Sunken Meadow State Park and the Kings Park Psychiatric Center has numerous substandard structures. Some of the buildings at the Psychiatric Center are deteriorated and vandalized. The Town Community Development Department has documented that numerous blighting conditions are present in the San Remo neighborhood. These conditions include deteriorated dwellings, code violations, substandard streets, deteriorated infrastructure, etc.
8. Future development of coastal wetland areas is a potential problem, particularly in areas of Fort Salonga, Landing Road, and around Route 25A in Smithtown. The current zoning in these areas does not adequately restrict development; some vacant parcels are zoned as Neighborhood Business, while others allow high densities. Actual development in accordance with the existing zoning could cause damage to wetland areas, dunes and bluffs, as well as pose safety hazards to residents.

Sensitive environmental features such as beaches, bluffs, dunes, and tidal and freshwater wetlands (Map 8 - Natural Resources), coupled with flood and erosion hazard areas, scenic vistas and steep slopes, are all areas within which development should be limited (Map 9 - Development Constraints).

C. Opportunities

1. The hilltop on NYS 25A in Sunken Meadow State Park has the potential to be perhaps the best scenic overlook of Long Island Sound from Long Island. At an elevation of about 250 feet, it is the highest point in the Town. Currently the view is limited to a few seconds for westbound traffic only. The regrading and clearing of trees for the Sunken Meadow Parkway has made possible the view of Long Island Sound. The view has many positive features including the stone bridge in the foreground, woods in the mid-ground and the water and Connecticut in the background. No houses are visible which might detract from the view. The only negative element consists of overhead wires on Route 25A. A scenic overlook could be developed on the north side of the road.
2. A hilltop north of Old Dock Road near the standpipe on the Kings Park Psychiatric Center property could be a valued scenic overlook. Although this site is on a secondary road, this high point would be important to the community, as the site overlooks Smithtown Bay toward Crane Neck. The site is not presently accessible because it adjoins the Psychiatric Center's ash dump which is off-limits to the public.
3. The area in the vicinity of Old Dock Road and Upper Dock Road could be redeveloped to a recreational waterfront use. This would result in two benefits: elimination of blight and provision of additional recreation opportunities. It would be more desirable

to construct boat trailer parking in this location than in Sunken Meadow State Park, because it eliminates the existing deteriorated conditions and would not impact the natural area in the Park.

4. Access to the water could be improved by reopening the west beach and parking lot at Sunken Meadow State Park. The beach was closed a few years after the east beach was opened. Apparently, it was closed because the Park Commission lacked the funds to patrol and maintain more than two beaches.
5. The recreational value of the waterfront could be enhanced by reopening the Sunken Meadow State Park picnic area on the hill adjoining Route 25A. This area was closed in the 1960's after a picnic area near Sunken Meadow Creek was completed. The picnic areas near the creek are more desirable because they are closer to the beaches. They are heavily used, thus indicating that more picnic areas may be warranted if sufficient funding is provided.

Proper promotion and utilization of the railroad could significantly improve access of disadvantaged people to the State's waterfront. The demand for Sunken Meadow is indicated by the fact that about 100 buses from the New York City area enter the State park per weekend. In the summer months, it may be feasible to provide shuttle bus service between the Kings Park Station and the State Park. It is doubtful that this type of operation would be feasible at the Smithtown or St. James stations as facilities near those stations do not generate nearly as much use.

Numerous people visit the Smithtown waterfront via bicycle. However, bicycle access is generally considered inadequate. Biking is hazardous on the Town arterial roads because of the combination of 28 foot-wide pavements, high traffic volumes, 40 mph speeds and limited site distances. The most hazardous area for biking in the Town waterfront area is on Route 25 between Edgewood Avenue and Meadow Road. Biking between the eastern and western portions of the Town's waterfront can be significantly improved if the hazards in this area were reduced. Bike travel is safe, convenient, and pleasurable in the Kings Park Psychiatric Center and Sunken Meadow State Park. Bicycling could be encouraged at these large facilities to accommodate the demand.

6. The abandoned shops adjacent to the boat basin in the Kings Park Psychiatric Center could be reused for water-dependent or recreational uses. The buildings are historic, architecturally handsome, and in danger of being destroyed by vandalism.

If additional boating facilities are developed, this area is probably the most logical location, as it has the fewest environmental constraints. There are five acres of unused dredge spoil fill close to the buildings which would be more appropriate for development than any of the wetland areas.

7. The Smithtown CBD could be redeveloped to be oriented to the water. There are 13± acres of vacant land on Main Street, east of the Nissequogue River. A large site is being underutilized as a flea market and could be redeveloped into more appropriate land use. There are three vacant parcels south of Main Street zoned for Heavy Industry and Neighborhood Business. The Heavy Industry parcel was used as a lumber yard because it adjoined the railroad, however, it is not likely to be used as a railroad related use in the future. If properly zoned and designed, future uses could benefit from being close to the Nissequogue River.
8. There are many significant historic sites in the Smithtown waterfront area. The historic sites provide many recreational, aesthetic, and cultural opportunities. Preserved and renovated historic sites could be used to promote tourism, as well as enhance the quality of life in the waterfront area. In the case of the Psychiatric Center, the buildings could be adaptively reused by the State for a variety of state needs. Adaptive reuse of these buildings would reduce the land and development costs, as well as environmental impacts as compared to developing such uses on other sites.