SECTION II INVENTORY AND ANALYSIS

A. OVERVIEW

The Town of Poughkeepsie has a coastal area that is characterized by a diversity of largely urban land uses while retaining many significant natural and cultural resources. With approximately two miles of frontage on Wappinger Creek and 8.5 miles on the Hudson River, the Town occupies an important position in the Mid-Hudson Valley's economy. The proposed coastal boundary ranges from 700 to 7,000 feet inland from the water's edge.

The railroad and topography have both played a part in the development of the Town's waterfront -- effectively limiting access. A mix of residential, commercial and industrial uses occupy the coastal area; some of these uses are water-dependent. Several businesses and institutions including the Hudson River Psychiatric Center, Marist College, Poughkeepsie Rural Cemetery, IBM and New York Trap Rock quarry occupy large sites which further limit both physical and visual access to the Hudson River.

Section B below describes the various natural and man-made features of the coastal area and their implications for waterfront policy making. Section C highlights major issues and opportunities that this Local Water Revitalization Program will address.

B. INVENTORY AND ANALYSIS

Field surveys, previous studies and published data were all used to assemble an inventory of existing conditions and features of the coastal area. Base maps were prepared to illustrate the data and photographs taken to record selected images. The results of this inventory and analysis process are presented below and illustrated on the accompanying maps.

1. Existing Land and Water Uses

a. Land Use Patterns

Land use in the coastal area is dominated by large users, two of which - IBM and Tilcon, New York (Trap Rock) - occupy over 3.5 miles, more than 40% of the Town's Hudson River shoreline. Another 2.2 miles of shoreline are occupied by four public or institutional uses.* The only exception to this pattern is the hamlet of New Hamburg at the extreme southerly end of Town. This small enclave includes a mixture of small residential and commercial uses in the only settlement located on the "water side" of the railroad.

At one time, IBM had proposed a possible future development of it's "North 100" site. The characteristics of this development were reviewed by the Town of Poughkeepsie Planning Board in 1986 in the course of its approval

* Hudson River Psychiatric Center, Poughkeepsie Rural Cemetery, Locust Grove and Bowdoin Park

of IBM's FGEIS. Thorough consideration was given to visual impacts of the proposed structures among others.

As part of a major adjustment in corporate plans, IBM has since abandoned its plans for the North 100. In the past few years, plans for a major paper recycling facility were put forth for this site although not yet submitted for final Town approval. Furthermore, in order to spur economic development, the North 100 site and the main building spine of the IBM campus were included in the Town of Poughkeepsie's Economic Development Zone (EDZ) created under New York State's Economic Development Zone program. This designation offers a variety of incentives, including real estate assessment exemptions and tax credits, to eligible development projects.

The designated coastal area also includes a variety of residential and commercial uses that do not have water frontage, views or other relationship to the River.

b. Water-Dependent Uses

A variety of fully or partially water dependent uses are situated along the Hudson River. The largest such use is the Trap Rock Quarry which has been in operation for more than 100 years. It is expected to continue operations as a major producer of crushed stone for the Mid-Hudson and New York metropolitan area for 30 to 100 years into the future. The Quarry has major loading facilities for shipment of raw materials. The site's excellent docking facilities are an important economic asset to the area, and the maintenance of these facilities is important to preserve the option of water-borne shipping for industrial and commercial businesses in the Town and nearby communities.

Other industrial type uses which utilize water transportation are the oil storage facility in New Hamburg, the IBM plant which formerly received fuel oil by barge, and the lumber yard just north of the City of Poughkeepsie which has a deep water dock (although it apparently has not been used in recent years).

A variety of private recreation facilities also depend on a waterfront location. These include a marina and yacht club in New Hamburg, the Pirate Canoe Club just north of IBM, crew facilities at Marist College and Vassar College and boating facilities at the Hudson River Psychiatric Center.

Finally, most of the Town depends on the Hudson River for its water supply, via the City of Poughkeepsie treatment plant. Also, the river receives the treated effluent from two existing sewage treatment plants; a third is under construction. IBM draws water from the river for use in its cooling systems.

c. Underutilized Sites

Utilization of most waterfront sites in the Poughkeepsie coastal area is determined by the level of access and physical constraints. Only two significant sites are underutilized in terms of these parameters. These are the dock at the Dutton Lumber Company just north of the City line and the land belonging to the Hudson River Psychiatric Center located west of State Route 9.

Access to the Dutton Lumber site, half of which is in the City, is circuitous via several narrow industrial streets in the City. The site is still actively used for lumber storage and distribution. Use of the site for other purposes, while possible, would require major street improvement if such use generated very much traffic.

A substantial parcel of land on the waterfront is owned by the State of New York at the Hudson River Psychiatric Center (HRPC). Use of this land by the general public is limited to special events approved by the HRPC. A tunnel under the railroad tracks provides access to the waterfront parcel, linking this with another parcel between the tracks and Route 9. Now that the state is looking to dispose of the site, the property has a significant development potential. The adaptive reuse of the underutilized portions of the HRPC is an important issue to the Town and the success of the LWRP. In order to best determine future use of the property, the Town should undertake a detailed study of the development options for this site and the means to preserve the waterfront for public use.

d. Recreation and Public Access

There is virtually no physical access for the general public to the water's edge in the Town's ten mile coastal area. The only exceptions are the ends of several local streets in New Hamburg which "dead end" at the river. Although Dutchess County's Bowdoin Park includes a mile of riverfront, there is no access across the railroad tracks to the water. Access for private recreational use is provided at the several boating clubs and marinas. These facilities are on very small sites with virtually no room for expansion. Underpasses lead to waterfront recreation facilities at the state-owned Hudson River Psychiatric Center and to adjacent parcels owned by Marist College, and the Poughkeepsie Water plant. Overpasses lead to a privately owned parcel at the end of Sand Dock Road and to a parcel owned by Vassar College south of the Marist parcel.

Bowdoin Park provides a variety of non-water related recreation facilities on an attractive 336 acre site with various views of the river. Long range plans for the park include a bridge over the railroad and docking and mooring facilities. A trail system exists on the Young-Morse Estate property.

Wappingers Creek at the hamlet of New Hamburg was one of the few locations where the boating public had the opportunity to reach the river

prior to permanent closing of the draw bridge. When the bridge was operable, the Creek was a popular waterway for recreational boating activities, because it provided depths of seven feet for most of the way upstream to the Village of Wappingers Falls. With the bridge closed, however, the navigational channel cannot be used for boating access to the Hudson River and points beyond.

Fishing in the coastal area has been limited by access constraints as well as by restrictions on consumption recommended by the New York State Department of Health.

2. Geology and Topography.

a. Physiographic Setting and Topography.

The Town of Poughkeepsie's coastal management area is situated within the "Slate Hills" subarea of the Hudson Lowlands, which in turn, are a continuation of the Appalachian Ridge and Valley Physiographic Province. The Slate Hills are generally low, rounded hills that follow the underlying bedrock structure lineations in a north-northeasterly direction. This structure also is reflected in the alignments of several tributary streams of the Hudson River, including the Wappinger and Casper Creeks, and the small stream that drains the IBM complex. The lowermost section of the Wappingers Creek includes a gorge and rapids, as the creek reaches sea level at its confluence with the Hudson.

In general, the land rises sharply from the gorge of the Hudson to several bluffs and terraces at elevations of 100 and 200 feet above sea level, generally underlain by shale and graywacke that exhibits a slight degree of metamorphism into slate. Rising from the terrace elevations are short, linear ridges along side the gorges of the Casper and Wappinger creeks, following the bedrock structure and attaining a height of between 250 and 300 feet above sea level. Many of these higher elevations are underlain by limestones, marbles and related rocks found in the "carbonate sequence" described below.

Steep slopes within the Town's coastal area are confined to locations along the gorges of the Hudson River and its major tributaries such as the Wappinger Creek. Steep slopes are also encountered at the edge of the Trap Rock quarry.

b. Bedrock Geology.

Much of the bedrock underlying the Town of Poughkeepsie coastal area consists of mid-Ordovician age continental margin-basin shales, with emplaced thrust sheets of early to mid Ordovician continental slope and rise deposits, and of Cambrian and early Ordovician aged continental shelf carbonate rocks. The Town is effectively divided into three litho-tectonic domains due to the location and extent of these thrust sheets.

The terraces abutting the east side of the Hudson River south of the City are primarily underlain by the dark grey shales of the Snake Hill formation. These folded and deformed rocks are not extensively exposed outside of the Hudson River gorge walls and at the Trap Rock quarry. The area near the Poughkeepsie Rural Cemetery and the Town's waterfront north of the City are believed to be underlain by shales, graywackes, argillites and chertbeds of the Normanskill Group, and specifically the Austin Glen and Mount Merino formations. The Austin Glen shales and graywackes are generally similar in appearance and weathering to the Snake Hill shales, although the deformation of the Austin Glen is more pronounced, with noticeable slaty cleavage in the shale beds and evidence of low-grade pressure metamorphism.

Two thrust slices of Wappinger Group carbonates occur just on the northwest side of, and parallel to, the Casper and Wappinger creeks, and underlie the ridges in this area. The Wappinger carbonates include pure limestones and pure dolostones, and consist of the following mapped units, in order of increasing age: the Copake and Rochdale limestones, the Halcyon Lake calc- ("limy") dolostone, the Briarcliff, Stissing and Pine Plains dolostones and the Stockbridge limestone. While the carbonates of the Wappinger group, particularly the limestone members, can easily weather, the dolomite beds are more-erosion resistant, a quality that has been somewhat enhanced by the structural deformation (folding and faulting) of these rocks. "Internal erosion" (solution weathering) is a concern with the pure limestone beds. This feature can enhance the aquifer potential of such beds, but can also be easily prone to contamination, particularly if surface soils are thin or absent, and thus unable to buffer liquid contaminants.

c. Surficial geology.

Much of the surface materials, including soils of the Town's coastal area are attributable to glaciation. Glacial till is the predominant surface material, with outwash sand and gravel concentrated along the Wappinger Creek. Sand and gravel deposits near the Marist College campus and in the commercial-industrial strip between IBM and the Poughkeepsie Rural Cemetery are found on elevated terraces and represent delta deposits at the edge of a glacial lake that existed where the Hudson River is now. Glaciolacustrine silts and clays are found at the lowermost reaches of the Casper Creek. Aside from the trap rock quarry, bedrock exposures predominate along the bluffs of the Hudson River at three general locations: New Hamburg; just north of the City boundary, and between the IBM plant and the Poughkeepsie Rural Cemetery.

3. Soils

The soils of the Town's coastal area are described in detail in the Dutchess County Soil Survey, dated 1991 (U.S. Department of Agriculture, Soil Conservation Service). See Table 1. This area of Town is covered with a mantle of soils derived from glacial deposits and in some places have been modified by urbanized

development and disturbance. Most of the soils present are of three major types, based upon the "parent" material from which they developed: (1) Glacial till- - an unsorted mixture of material ranging in size from silt and clay particles through large cobbles and rock fragment; (2) stratified drift- -well-sorted sand and gravels deposited by fast-moving glacial meltwaters; and (3) soils that are indicative of alterations to the landscape by urbanization. Minor amounts of soils within the coastal area are derived from glacio-lacustrine (lake) deposits, floodplain sediments and decomposed organic matter.

Some of the most frequently encountered soils in the study area are those that have developed on glacial till, often in association with the underlying bedrock. Specifically these are the soil complexes formed by combinations of the Cardigan, Dutchess and/or Nassau series. These soils have hilly, irregular slopes formed on bedrock-controlled landscapes. Bedrock is quite close to surface in the shallow Nassau series (depth of 20 inches or less), which is in some location is mapped as part of a complex with "rock outcrop." The Cardigan soils are moderately deep (20 to 40 inches); their composition and that of the Nassau series reflects the underlying folded shale bedrock. The Dutchess soils are deep, have no fragipan ("hardpan") at depth and can contain a high proportion of shale and slate bedrock fragments. Deep till-derived soils (bedrock depth of 60 inches or greater) are represented by the Bernardston, Massena and Pittstown series. The Bernardston and Bernardston-urban land complex occurs along the ridge that extends northeast from New Hamburg, parallel to the Casper Creek. The Massena and Pittstown soils are concentrated in a small area situate south of the quarry, adjacent to the Hudson River. The Bernardston and Pittstown series have a fragipan that can inhibit permeability, resulting in a "perched" seasonally high water table.

Areas in the Town near the Hudson River Psychiatric Center, and the commercial and industrial strip between IBM and the Poughkeepsie Rural Cemetery, along with the terraced hillsides adjacent to the Casper Creek, are underlain by soils derived from glacial outwash and glaciolacustrine delta deposits, as exemplified by the sandy loams of the Hoosic and Knickerbocker series. These soils are deep, well-drained and suitable for urban development.

Urban growth has resulted in the extensive modification and alteration of pre-existing soils and surficial deposits, particularly near Marist College and the commercial strip north of the IBM plant. In these areas, "cut and fill" material, specifically known as "udorthents," predominates, interspersed with the impervious surfaces that are mapped as "urban land." Udorthents are representative of an amalgam of soil material found both *in situ* and that which is brought in from elsewhere. The texture, grain size, percolation and permeability of udorthents is highly variable. Because of their association with disturbed and leveled sites, udorthents usually have little to no slopes of any significance. Urban lands consist of hard pavements (concrete, asphalt) and building surfaces (such as roofing materials) which rapidly convey rainwater runoff onto more permeable areas or into drainageways.

Several areas of the Town have been mapped to show the underlying soil type as one of several complexes formed from urban land in combination with the Dutchess and Cardigan complexes, the Hoosic series or the Knickerbocker series.

Small areas along stream channels and the Hudson River shoreline are mapped as "wetland" soils (Hydraquents and Medisaprists). These "soils" are frequently "ponded" (inundated with water) for lengthy periods of time during the year. Alluvial (or floodplain) deposits (Fluvaquents-Udifluvents complex) located in some creek channels upstream from the Hudson River. Both the "alluvial" and "wetland" soils are subject to frequent flooding. Two soil types of limited areal extent, the Canandaigua and Raynham silt loams, are derived from fine sediments deposited in a lake environment during deglaciation. Soil cover is absent at the trap rock quarry.

Several types of soils, particularly the Bernardston series and the Dutchess-Cardigan complexes, along with udorthents and urban land, have a moderate to high susceptibility to erosion, with "K" factors set forth in the soil survey guide between 0.24 and 0.37. Three soil units that encompass only a small amount of the Town's coastal area, the Canandaigua, Raynham and Wayland silt loams, have a high susceptibility to erosion, with K factors ranging between 0.37 and 0.64. The Wayland unit occurs along an unnamed Hudson River tributary stream that drains the Hudson River Psychiatric Center lands, in a small location just east of US Route 9, at an elevation of roughly 100 above sea level. The Raynham soils occur in a similar, following an intermittent stream along Channingville Road, just east of New Hamburg. The Canandaigua units are limited to small level areas within the hills along Sheafe and Cottam Hill roads. It should be noted that all soils have a potential to produce significant erosion if they are disturbed in an improper manner, particularly on sloping sites where vegetation is removed and not immediately restored. The soils which have a moderate to high erosion potentials, based on the "K" factor values, are illustrated on Map 5.

The Canandaigua, and Wayland silt loams are classified as "hydric," along with the Fluvaquents and Hydraquents. A "hydric" classification indicates that the area mapped with any of these four soil types may be a "federally-regulated" wetland under the jurisdiction of the Army Corps of Engineers. The Haven soils, and the low sloping variants of the Bernardston and Copake soils are "prime" agricultural soils. Many of the characteristics that render these soils as well-suited for agricultural use also make them ideal for urban development. The utilization of these soils for development is not a significant concern as there is essentially no active agricultural land within the Town's coastal area where these "prime" soils have been mapped.

4. Significant Habitats and Wetlands

a. Significant Habitats

Significant Coastal Fish and Wildlife Habitats are evaluated, designated and mapped pursuant to the Waterfront Revitalization and Coastal Resources Act (Executive Law of New York, Article 42). The New York State Department of Environmental Conservation (DEC) evaluates the

significance of coastal fish and wildlife habitats, and following a recommendation from the DEC, the Department of State designates and maps specific areas. See Appendix A.

Two sites have been designated as Significant Coastal Fish and Wildlife Habitats by the New York State Department of State within the Town of Poughkeepsie:

(1) The Poughkeepsie Deepwater Habitat encompasses a fourteen-mile reach of the Hudson River from Hyde Park to the vicinity of the northern end of Bowdoin Park. The habitat consists of a nearly continuous river bottom trench, from 30 feet to the bottom. Most of the area has water depths of 50 feet or greater.

Deepwater estuaries such as the Poughkeepsie Deepwater Habitat are rare in the eastern United States. The Hudson River is the only river in New York State that contains this ecosystem type. Winter habitat for shortnose sturgeons, an endangered species, is provided in the deepwater habitat and an unusual diversity of marine species is found there. Shortnose sturgeon use the Habitat as spawning grounds. Yolk-sac shortnose sturgeon larvae have been collected from this area at depths of 45 to 120 feet. Although habitat requirements of the shortnose sturgeon in the Hudson River are not well known, it is believed that these deepwater areas may be critical throughout the year. A variety of estuarine and marine species appear in numbers in this area including bay anchovies, silversides, bluefish, weakfish, and hogchokers. The abundance of shortnose sturgeon and these other estuarine species is unusual in New York State. Commercial and recreational use of these species is not known to be significant.

(2) Wappinger Creek is located on the east side of the Hudson River, on the boundary between the Towns of Poughkeepsie and Wappinger, Dutchess County (7.5' Quadrangle: Wappinger Falls, N.Y.). The fish and wildlife habitat is an approximate two mile segment of this freshwater tributary, extending from its mouth on the Hudson River to the first dam upstream, located in the Village of Wappingers Falls. Wappinger Creek is a relatively large, perennial, warm water stream, with a drainage area of over 180 square miles, and an average annual discharge volume in excess of 250 cubic feet per second. The first quarter mile of stream below the dam flows through a steep, rocky, rapids, situated in a wooded ravine. Below this stretch, the creek is within the tidal range of the Hudson River, and contains mudflats, sandbars, aquatic beds, emergent marsh, and rocky shore communities. At least part of this segment appears to have been dredged or channelized in the past, to accommodate navigation to commercial and industrial developments along the creek in Wappingers Falls. Despite this disturbance, much of land bordering Wappinger Creek remains in a relatively natural condition,

dominated by steep wooded slopes. Habitat disturbance in the area is generally limited to the presence of road and railroad crossings, discharges of stormwater runoff, low density residential development, small-scale dredging operations, and upstream water uses.

Wappinger Creek is one of about five major tributaries emptying into the lower portion of the Hudson River estuary. The considerable length of stream channel accessible to migratory fishes, the diversity of habitats, and the lack of significant human disturbance in upper portions of the creek, provide favorable habitat conditions for many fish and wildlife species. Past disturbances, including dredging and invasion by water chestnut (still abundant), may have reduced habitat quality in the area. However, several rare plant species, including grassleaf arrowhead, subulate arrowhead, kidneyleaf mud-plaintain, and Maryland but-marigold are known to occur in the estuarine portion of Wappinger Creek.

Wappinger Creek is an important spawning area for anadromous fishes, such as alewife, blueback herring, white perch, tomcod, and striped bass. Generally, these species enter the stream between April and June; the adults leave the area shortly after spawning, and within several weeks, the eggs have hatched, and larval fish begin moving downstream to nursery areas in the lower creek channel and the Hudson River. An exception is tomcod, which spawn in the area in December and January. A substantial warm water fish community also occurs in Wappinger Creek throughout the year. Resident species include largemouth bass, bluegill, pumpkinseed, red-breasted sunfish, and brown bullhead. The abundant fisheries resources of the Wappinger Creek provide significant opportunities for recreational fishing by Dutchess County residents, especially for black bass. Although no developed public access facilities exist in the area, many anglers gain access from a privately-owned informal boat ramp on the south shore of the creek mouth area.

In addition to its importance as a fisheries resource, Wappinger Creek provides feeding habitats for various wildlife species. Herons, waterfowl, furbearers, and turtles may be found in the area at almost any time of year. However, no unusual concentrations of any species have been documented there. Freshwater inflows from Wappinger Creek are also important for maintaining water quality in Hudson River fish and wildlife habitats.

b. Wetlands

The Legislature has declared that it is "the public policy of the state to preserve, protect and conserve freshwater wetlands and the benefits derived therefrom" (Sec. 24-0103, Environmental Conservation Law). Accordingly, DEC has identified and mapped all freshwater wetlands that

are larger than 12.4 acres in accord with ECL Article 24. Protected streams are those streams which are navigable and/or classified by the DEC as C(T) or above in accord with the ECL Article 15. Any development of protected wetlands require a "wetlands" or a "stream protection" permit from DEC. Based on their evaluation of the permit application, DEC may limit development, require mitigative measures or prevent development.

One wetland regulated by the State is located within the study area and is shown on Map 4. Wetland PK-19 (the letter portion of the designation represents the USGS quadrangle map on which the wetland is located) is located immediately west of Barnegat Road and north of the Trap Quarry on the Hudson River. (It is approximately 18 acres in size).

Unlike the State defined and regulated freshwater wetlands, federally defined and regulated wetlands include certain hydric soils and wetlands smaller than 12.5 acres in size pursuant to the Federal Clean Water Act. In these areas, the federal government regulates activities where there is no State freshwater wetlands regulation. Activities regulated or undertaken by the federal government in these areas require a State Water Quality Certification from NYSDEC. However, unlike the State, the federal government does not regulate activities in upland areas adjacent to wetlands. Depending upon the circumstances, such as in dry upland areas up to 100 feet adjacent to freshwater wetlands along the Hudson River, or other wetland areas, the State regulates and provides a higher level of protection to freshwater wetlands and their functions and values than does the federal government.

It should be noted that when an activity is proposed to be undertaken by the federal agency, or when a proposed activity requires federal authorization or funding, the activity must be consistent with the policies and purposes of the State Coastal Management Program or an approved LWRP. As a result, the regulatory and other decision-making standards that apply to a proposal are not limited to discrete wetlands and water quality standards, but are expanded to include all decision-making standards contained in the LWRP. This federal and State consistency requirement, combined with the federal Clean Water Act, State and local wetlands and water quality standards, including State water quality certifications pursuant to the Clean Water Act, and the land and water use plan and the policies and all of the purposes of an LWRP, provide much greater protection of wetlands than existing Clean Water Act standards.

5. Hydrology and Water Quality

a. Drainage

The study area lies entirely within the Hudson River drainage basin. Wappinger Creek is the only other major stream in the study area and it forms the southern boundary of this study area. Rising in the rock crags of Stissing Mountain, near the center of Dutchess County's northern border,

Wappinger Creek flows southwesterly down and across smooth meadowlands to enter the Hudson River. Significant portions of the Creek flow through populated areas of Dutchess County including the Town of Poughkeepsie and the Village of Wappinger Falls. Wappinger Creek lies entirely within Dutchess County and drains approximately one-quarter of the County's land area.

Casper Kill Creek is a small stream that flows through a portion of the study area. It originates in the northern part of the Town of Poughkeepsie, north of Bedell Road and flows southwesterly to the Hudson River. Portions of this creek form the Town boundary with the City of Poughkeepsie. Spring Brook is a small tributary that flows through the IBM property in a southwesterly direction. A small unnamed tributary to the Hudson River originates on the grounds of the Hudson River Psychiatric Center and flows south-westerly for a distance of approximately 1.4 miles before crossing under the Conrail tracks.

b. Flood Protection

Local history indicates that flooding has occurred during times of severe weather disturbances such as the two hurricanes in 1955. Most of the problems associated with those events, as well as smaller events such as northeasters which also bring heavy rains, have occurred outside of the study area.

A 1978 Flood Insurance Study by the Federal Insurance Administration designated flood hazard areas ("100 year floods"). Included are areas along the Hudson River, Casper Creek and Wappinger Creek. Due to the steepness of adjacent lands, these areas are very narrow strips and, except for a few properties at the water's edge in New Hamburg, do not include residential development. Floodways, in which severe development constraints are imposed, are designated along the two Creeks. However, these are extremely narrow and involve lands which have virtually no development potential. There are few instances where bulkheads are used for flood or erosion control and no known problems with such structures.

c. Surface Waters

The Hudson River water is monitored by the State DEC at the Poughkeepsie Water Plant for a number of conventional and toxic pollutants.

The quality of the waters of the Hudson River has improved drastically over the past several years due largely to improvements at upstream sewage treatment plants. Standard parameters such as coliform, fecal coliform, ph and dissolved oxygen have been monitored since the 1960s while monitoring of toxic substances has been carried on more recently. In 1982 and 1983, the following substances were detected:

Parameter	Analytical Results
1,1,1 - Trichloroethane	1 ug/l
Cadmium	7 ug/l
Copper	0.05 mg/l
Nickel	0.05 mg/l
Silver	0.02 to 0.03 mg/l
Trichloroethylene	2 ug/l
Chloroform	11 ug/l
Selenium	6 to 8 ug/l

During testing in 1984, all parameters were less than their detection levels.

The Hudson River is rated Class A meaning that the water is suitable for drinking, culinary or food processing purposes and any other uses. For drinking water, it must be adequately treated to State Department of Health standards. Wappinger Creek is rated Class C(T) meaning that it is suitable for fishing and all other uses except as a source of water supply for drinking, culinary or food processing purposes and primary contact recreation. The (T) designation means that Wappinger Creek is a protected stream because of its trout habitat.

Casper Kill Creek is rated Class C from the Hudson River to Cobalt Lake.

Cobalt Lake is rated Class B meaning that the water is suitable for primary contact recreation and any other uses except as a source of water supply for drinking, culinary or food processing purposes. The remainder of Casper Kill Creek is rated D within the study area meaning that its best use is for secondary contact recreation, but due to natural conditions, it will not support the propagation of fish.

d. Sewage Disposal

Most of the coastal area is served by public sewage disposal systems. The area north of the city is served by the City of Poughkeepsie Treatment Plant and the area south to Bowdoin Park by the Arlington Sewer District. The Tri-Municipal Sewer Wastewater Plant, located off Sheafe Road at the north end of Bowdoin Park, went on line on April 1987. The plant serves the existing sewered portions of the First Ward Sewer District and the Village of Wappingers Falls, increasing capacity in these districts. Current proposals for the expansion of the Tri-Municipal Wastewater Treatment Plant and

Service Area will allow increased flows of wastewater from the Town of Wappinger to be treated at the Plant. The Town of Poughkeepsie has under consideration proposals which would provide central wastewater services to an 11.1 square mile area of the eastern portion of the Town of Poughkeepsie, based around the Wappinger Creek drainage basin. Included in this area is most of the coastal area that is not currently served by central sewers, notably the hamlet of New Hamburg, which in the past has proved uneconomical to connect to an existing system

e. Water Supply

The entire coastal area is served by a central public water supply system drawing primarily from the Hudson River at the City of Poughkeepsie plant in the northern part of the Town. Recent reactivation of the Chelsea pump station by New York City and proposals to expand its capacity or develop other diversions of Hudson River water could cause a northward movement of the salt front which would threaten the quality of river water as a water supply.

6. Waste Disposal

a. Solid Waste

All solid waste disposal in the coastal area is accommodated by a new, county-wide resource recovery plant under construction in the Town of Poughkeepsie just south of the IBM plant. Steam generated by the resource recovery plant will be sold to IBM.

b. Toxic Waste

Two sites in the study area are listed by the New York State Department of Environmental Conservation (DEC) in the State's Registry of Inactive Hazardous Waste Sites. The old landfill near Building 028, on the Main IBM plant campus, and Building 952/982 on Neptune Road, were listed because of past seepage of Industrial solvents into the ground threatening nearby groundwater supplies.

IBM initiated remediation measures, including monitoring and testing wells. Contaminated soils were removed from both sites in the early 1980's. Some residual contamination of groundwater on the site remains, however. Due to this groundwater contamination and associated studies and monitoring programs, the sites are still included in the DEC registry.

7. Air Quality

The New York State Department of Environmental Conservation follows the federal Environmental Protection Energy (EPA) quality standards for ambient air. Areas where the ambient concentration of a pollutant is greater than the standard for each major category of pollutant (total suspended particulates, carbon monoxide, sulphur

dioxide, oxides of nitrogen and ozone) are considered to be in non-attainment for that pollutant, and areas where ambient contributions are less than standard are considered in attainment.

The Town of Poughkeepsie is currently classified as an attainment area for criteria pollutants. When considering the siting of a new facility or modifications of an existing facility the status of air quality at the facility and the magnitude of the projected annual emissions of criteria pollutants must be evaluated. Air quality testing equipment is maintained in the City of Poughkeepsie near the Columbus School.

8. Cultural Resources

The Town of Poughkeepsie, particularly the shoreline areas of the Hudson River and Wappinger Creek, is rich in archeological and historic resources. Unfortunately, the coastal area in the Town has only partially been inventoried. The following is a description of information that currently exists on cultural resources in the study area.

a. Archaeological

A review of the statewide inventory of archaeological sites indicates a number of archaeologically sensitive sites in the coastal area. These are primarily in the southern part of Town extending between IBM and the hamlet of New Hamburg.

b. Historic

Areas of the Town of Poughkeepsie that have been surveyed within the coastal area include the Hamlet of New Hamburg, the area located between Poughkeepsie Rural Cemetery and the shopping center including the Morse estate and others, and the Hudson River Psychiatric Center. The Route 9 corridor has been surveyed and evaluated as part of the Department of Transportation's highway improvement project. The remainder of the study area has not been systematically surveyed for historic resources.

A number of properties in the study area are currently listed on the State and National Registers of Historic Places. Locust Grove, the Samuel F.B. Morse Estate, is currently listed and several nearby properties appear eligible for State and National Register listing. These include Maple Grove, a former estate at 301 South Road and the central part of the Hudson River Psychiatric Center campus (excluding all buildings west of Route 9). The South Road area includes the estate area in the vicinity of Locust Grove on the west side of South Road from Hudson Plaza north to and including the Poughkeepsie Rural Cemetery, and the Kinkaid property east of South Road north of Bancroft Road.

Eight properties were found eligible for State and National Register listing in the Hamlet of New Hamburg. All have been approved by the State Review Board and are now listed in the National Register. (See Map 4A).

Also on the National Register are the main building at the Hudson River Psychiatric Center and three buildings at Marist College from the former Rosenlund Estate. The Cornell Boathouse on the Marist waterfront may also be eligible for listing.

9. Transportation

a. Highway System

Transportation in the coastal area is largely by private automobile, although public transportation resources do exist. The major traffic artery is US Route 9 which parallels the Hudson River and forms the eastern boundary for most of the study area. Route 9 is the primary north-south artery on the east bank of the Hudson and carries significant amounts of local, regional and intra-regional traffic. Designated for street address purposes within the Town as "North" or "South" Road (relative to the City of Poughkeepsie), Route 9 follows the historic Albany Post Road corridor between New York City and Rensselaer.

The Town was the nucleus of the developing state highway system in Dutchess County after the turn of the century, with South Road improved between the Casper Creek and the city boundary by 1906. The County was responsible for overseeing the work on this section as well as on a portion of Delafield Street just north of the city. State highway crews finished the remainder of South Road towards Wappingers Falls in 1911, and assumed jurisdiction for the remaining piece of North Road on the Psychiatric Center grounds in 1912. The US Route designation was established around 1926. Subsequent development along the South Road corridor between the city and Wappingers Falls, particularly after World War II, has resulted in widening and realignment over the years, leading up to the present-day six-lane divided arterial configuration, completed in the late 1980's.

Regional east-west vehicular access through the Town is readily accommodated by the US Route 44/ NY Route 55 (overlap) corridor which provides connections to the east via the arterial system in the City and to communities on the west shore via the Mid-Hudson Bridge, constructed and opened to traffic in the late 1920's. Some years ago the New York State Bridge Authority was considering the possibility of constructing a new river crossing to relieve congestion on the Mid-Hudson Bridge. This proposal is no longer under active consideration.

Other east-west streets in the Town serve a more localized function in tying the coastal area to US Route 9 corridor and to other areas of the Town and adjoining municipalities. Many of these road traverse through, and provide access to, predominantly residential areas. Fulton Street directly connects

US 9 (North Road) to Violet Avenue (NY Route 9G) via the Fairview neighborhood that is situate between the northerly city boundary and the Hudson River Psychiatric Center. South of the city, Spackenkill Road (NY Route 113), Vassar Road (County Road 77) and Spring Road provide locally important cross-connections between the Town's interior areas and the few river access points. The hamlet of New Hamburg is accessed from the northeast via Sheafe and Channingville Roads, and from the east via New Hamburg Road (CR 28) which traverses the Town of Wappinger to connect with US 9 south of Wappingers Falls.

b. Rail

Both freight and passenger rail service is provided along the old New York Central mainline, now owned by Conrail. Since this rail line closely parallels the Hudson River shoreline, legal and physical access to the river has been severely limited in most locations as a consequence. Amtrak and Metro-North provide regional and commuter passenger service respectively, but passengers must use the railroad station located in the City of Poughkeepsie for both carriers or the New Hamburg station for Metro-North. Conrail provides regular freight service along this line, and along several short commercial "spurs" in the study area. One such spur extends from the mainline tracks near the northerly City boundary and works its way uphill to various industrial customers near the Fairview neighborhood and also in the City. This particular branch line also connected into the old New Haven "Maybrook" line that once traversed the Poughkeepsie Railroad Bridge which connects to the City of Poughkeepsie. There is an additional freight spur at the IBM plant.

The pending merger of a portion of the present Conrail system, including the "Hudson River lines," into the CSX Rail network is not expected to result in any drastic changes to passenger or freight rail service or the railroad's physical plant within the Town of Poughkeepsie waterfront.

c. Public Transit

Public transportation is available on the Dutchess County Loop Bus system and the City of Poughkeepsie's Bus Transportation system. The City bus system provides a route from the Hudson River Psychiatric Center to St. Frances Hospital, downtown Poughkeepsie and Vassar Brothers Hospital with buses running every 30 to 45 minutes throughout the day. The Dutchess County Loop Bus System services both the north and south portion of the study area with commuter, mid-day and express routes. A total of nine different bus routes service the coastal area linking Tivoli, Pine Plains, East Fishkill, Fishkill, Wappinger, La Grange, Millbrook and the City of Poughkeepsie with the study area. However, all of these routes run only on Routes 9 and 9D and do not provide service to New Hamburg, Bowdoin Park or other waterfront facilities.

10. Scenic Resources

The scenic character of the coastal area of the Town of Poughkeepsie is varied and from north to south the prominent characteristics include:

- the formal mix of open space and built form of the institutional and educational sites at the Hudson River Psychiatric Center and Marist College;
- the Mid-Hudson Bridge and the historic Poughkeepsie Railroad Bridge, while not within the Town of Poughkeepsie contribute greatly to the scenic character of its coastal area;
- the open qualities of the Poughkeepsie Rural Cemetery and Locust Grove;
- the narrow and largely undisturbed wooded hills and bluffs bordering the Hudson River that screen the IBM industrial plant, local utilities and sprawling suburban areas beyond the coastal boundary;
- the largely undisturbed coastal wetland and wooded bluffs and hills of Van Keurens that screen a sewage plant and suburban residential development, minimize the intrusion of the Dutchess County Resource Recovery Plant and form a visual buffer to Trap Rock Quarry;
- the extensive facilities related to Trap Rock mineral extraction processes;
- the pastoral mix of open and wooded lowlands adjacent to Sheafe Road, surrounding and encompassing Bowdoin Park and Mount Alvernia Seminary and screening Trap Rock Quarry from within the coastal area;
- the historic Hamlet of New Hamburg;
- the undisturbed steep wooded banks of Wappinger Creek.

Viewed from the water or the opposite shore, the coastal area does not reveal the extent to which it is developed. Significant open space is visible and the vegetated bluffs that are present along the shoreline provide a screen from what otherwise may be a monotonous view, limiting the impact of intrusive visual features such as the suburban residential sprawl, utility sites and IBM's industrial site. The Trap Rock quarry is mostly screened from the river by an escarpment, which lessens the views of this significant industrial facility, although the docking and loading facilities are visible from the river.

The scenic characteristics of the western shore of the Hudson River contribute to the overall scenic resources of the Town of Poughkeepsie. Viewed from the Town of Poughkeepsie the western shore is dominated by the steep wooded bluffs that rise above the Hudson River. Views of these from the northern portion of the Town are framed by the Mid-Hudson Bridge and the historic Poughkeepsie Railroad Bridge. Moving south past Blue Point the steep bluffs mix with gently rolling uplands, while vineyards and orchards extend down to the Hudson. The historic

hamlet of Milton and several elegant mansions and large farm complexes line the river and the rolling uplands beyond the bluffs. Visual interest is provided by the marina facilities of Marlborough Dock, clearly visible from Bowdoin Park, and the exposed rock face of an inactive quarry, visible from the southern parts of the Town of Poughkeepsie, notably from the Hamlet of New Hamburg. Looking further south the views of the western shoreline are dominated by the smokestacks and bulky industrial structures of the Danskammer Point and Roseton power plants. The distant views of the Newburgh-Beacon Bridge provides interest on the southern horizon.

The Hamlet of New Hamburg, lying between the railroad and the river, is important as both a scenic feature and location for visual access to the Hudson River. The Hamlet is a very compact settlement with a neatly maintained wharf and marina. Older houses are nestled in mature tree lined streets. It exhibits a very positive scenic relationship with the Hudson River, with both glimpses and complete vistas of the River and western shoreline from several public streets. The only discordant feature is a small tank farm on Point Street.

Visual access from the Town of Poughkeepsie is limited due to topography, development, private ownership and a lack of public access to the shoreline, although opportunities do exist for viewing the Hudson River from points in the study area. These sites are either in public ownership, offering visual access to the general public, or are privately owned, offering visual access limited to employees, residents or authorized visitors. Notable among these are the lands of the Hudson River Psychiatric Center, Marist College, Poughkeepsie Rural Cemetery, IBM - Poughkeepsie's Plant and IBM Road, Barnegat Road, Bowdoin Park and the Hamlet of New Hamburg.

Views from public streets to the water are extremely limited, except in New Hamburg, and there are no good opportunities for scenic overlooks along such public streets. The State of New York has taken a leadership in development of a scenic roads program for the Hudson River Valley. Route 9 from the City of Poughkeepsie line to the Town of Hyde Park has been nominated for designation as a Scenic Road, meaning that the roadway has important resources within its corridor, with a reasonable balance of positive and negative visual elements. The views from Route 9 of the Hudson River, the Mid-Hudson Bridge, the Poughkeepsie Railroad Bridge, and the bluffs on the western shore are the positive elements that should be protected as much as possible as new development occurs.

Sites in public ownership where visual access exists or can be created are identified on Map 4. These are from north to south:

- The Hudson River Psychiatric Center;
- The City/Town of Poughkeepsie Waterworks;
- The Town's Fourth Ward Sewer District Plant;
- The Arlington Sewer District Plant;

- The Tri-Municipal Sewer District Plant;
- Bowdoin Park;
- Various locations on streets in New Hamburg, including Water Street, Point Street, River Road and Main Street.

C. MAJOR WATERFRONT ISSUES AND OPPORTUNITIES

Physical constraints and existing development patterns have substantially defined the nature of future land use in the Poughkeepsie coastal area. Among the major issues to be addressed, within the established development framework, are the following which are further elaborated in Section III.

1. Public Access to the Waterfront

No useable access to the waterfront for either active or passive recreation is available to the general public throughout the Town's coastal area. Even the few private access points, except for those in New Hamburg, are impaired by at-grade rail crossings or narrow underpasses or bridges. Opportunities to improve or increase use of existing public access points - particularly at the Hudson River Psych Center - or to create new access must be evaluated and encouraged where feasible. It is particularly important that opportunities to connect access points, as proposed by The Hudson River Valley Greenway, be pursued. Participation by private property owners such as the recent proposal for a waterfront park by Marist College is also to be encouraged. The Town Board has endorsed the designation of the Town of Poughkeepsie as a Greenway Community by the Greenway Council.

2. Preservation of New Hamburg

The hamlet of New Hamburg is unique in the Poughkeepsie coastal area. Its architectural character and waterfront access are great assets. The intensity of development, several incompatible uses and lack of sewers are potential problems. It is important that a comprehensive approach be designed to preserve and enhance this unusual community.

3. Development Options

Although the development pattern in much of the coastal area is well established, some remaining options still exist. Policies for the type and standards for development in these areas -- possible excess state land at Hudson River Psychiatric Center, land on either side of Pirate Canoe Club Road, land north and south of Bowdoin Park -- represent the last opportunities to influence the visual environment in the coastal area. Also, the ultimate post-quarry use and reclamation of the Trap Rock quarry must be considered.

Two highway proposals in the coastal area are now inactive. If revisited, however, each would have significant negative impacts which must be carefully considered as follows:

- New Hudson River Bridge Location

  The need for and possible location of another bridge over the Hudson in the Poughkeepsie area was considered some time ago. Possible locations studied have included the vicinity of Hudson River Psychiatric Center, at the north end of Town, and Spackenkill Road at the IBM complex. No decisions were made as to either need or location and the project is no longer being actively considered. It is beyond the scope of this LWRP to analyze all the implications of each alternate. However, if these plans and proposals are reactivated, they must be evaluated in terms of the impacts on the policies established in Section III, Local Policies and Applicable State Policies.

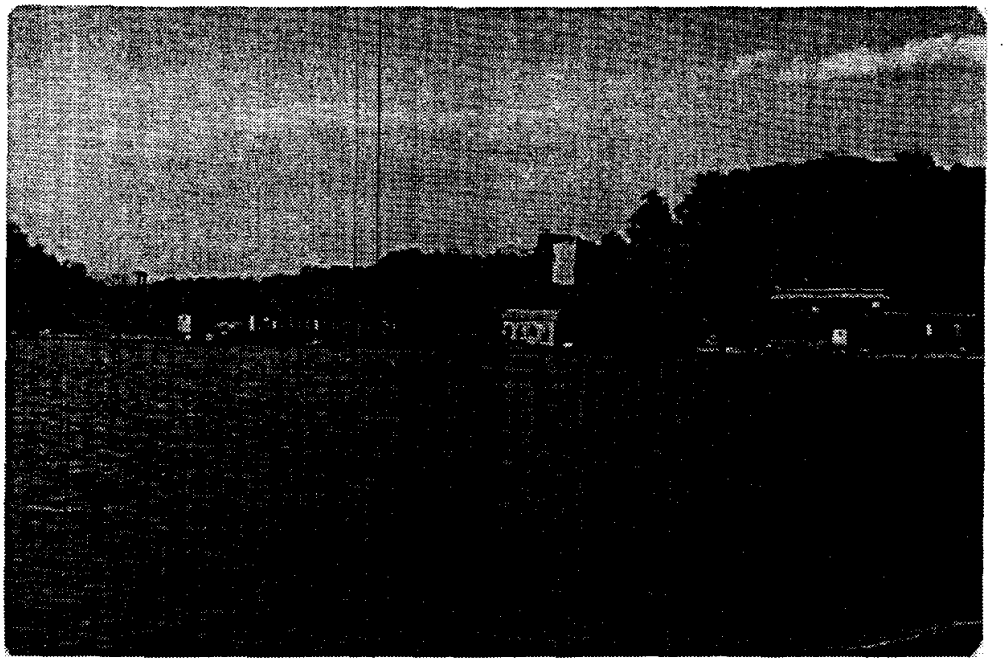
- Riverside Highway

  This highway, proposed in 1985, along the Hudson River, just inland from the railroad tracks, would have significant negative impact on land use, scenic quality, recreation and public access in the coastal area and should not be considered further.

D. PHOTOGRAPHS

1. Drawbridge at entrance to Wappinger Creek.
2. White's Marina in New Hamburg.
3. New Hamburg.
4. New Hamburg Yacht Club (left) and oil storage tanks on the water's edge.
5. Remnants of dock at Bowdoin Park.
6. Trap Rock screening and loading dock.
7. Trap Rock excavation.
8. IBM waterfront facilities.
9. Inlet behind tracks.
10. Pirate Canoe Club and additional land to the south.
11. Dutton Lumber.
12. Marist's boat house.
13. Recreational use of the river.
14. Developed waterfront recreation at Hudson River Psychiatric Center.

1



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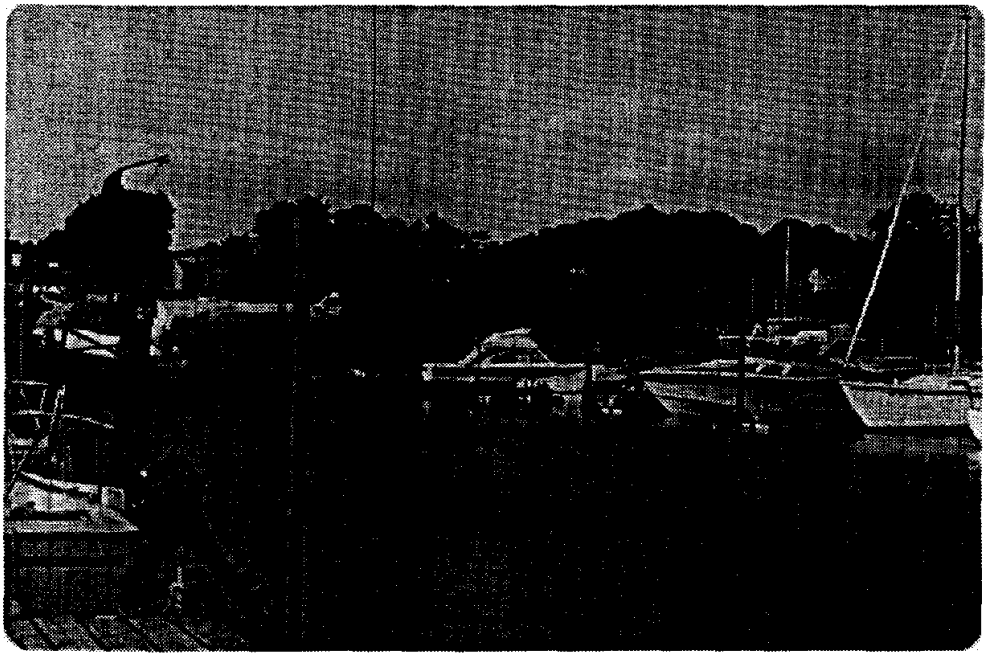

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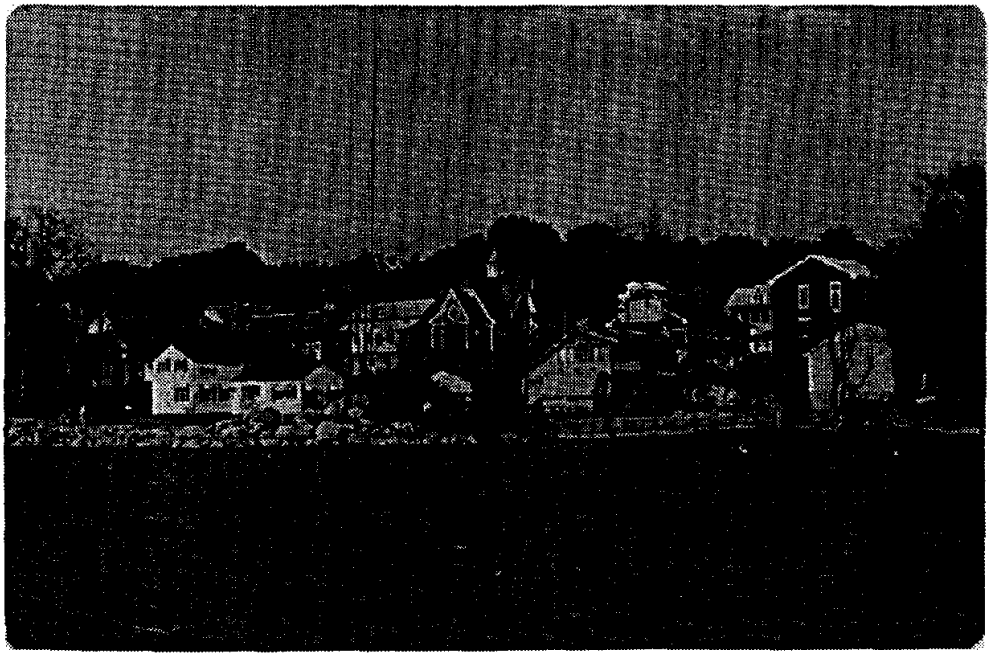

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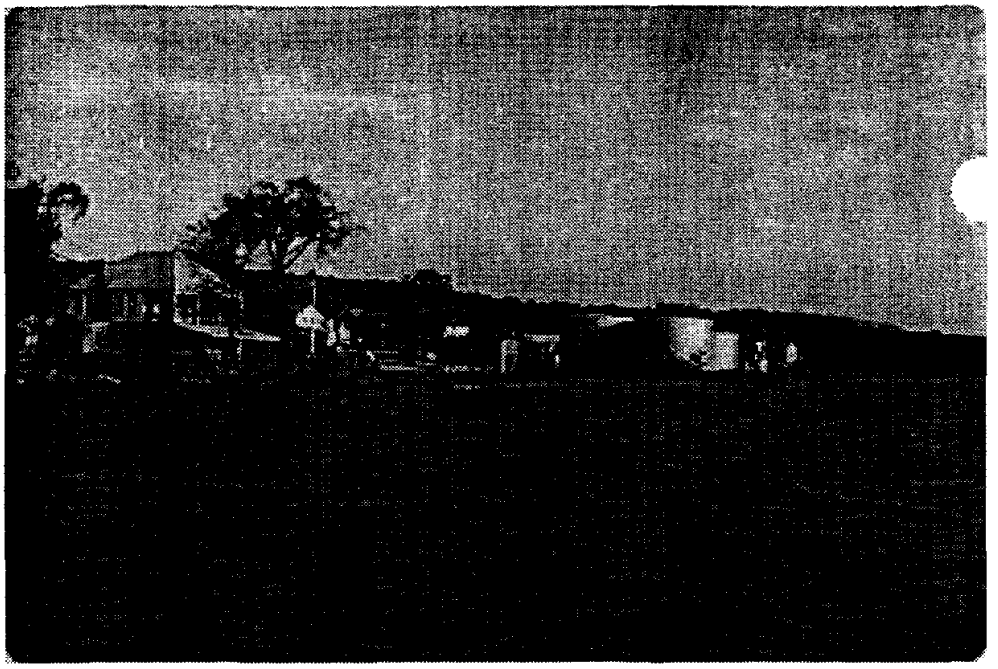

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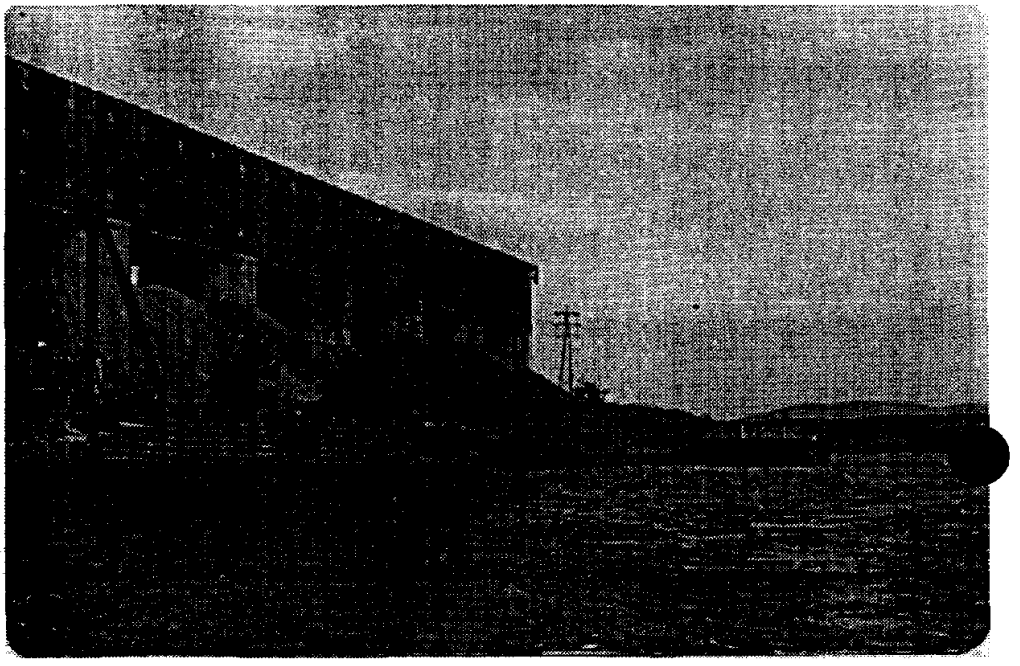

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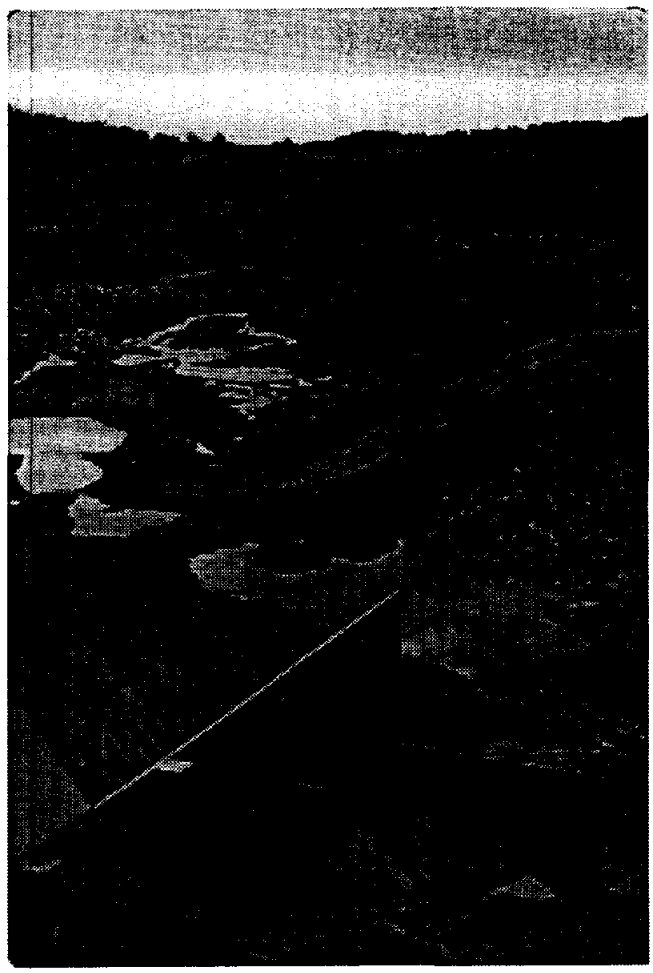

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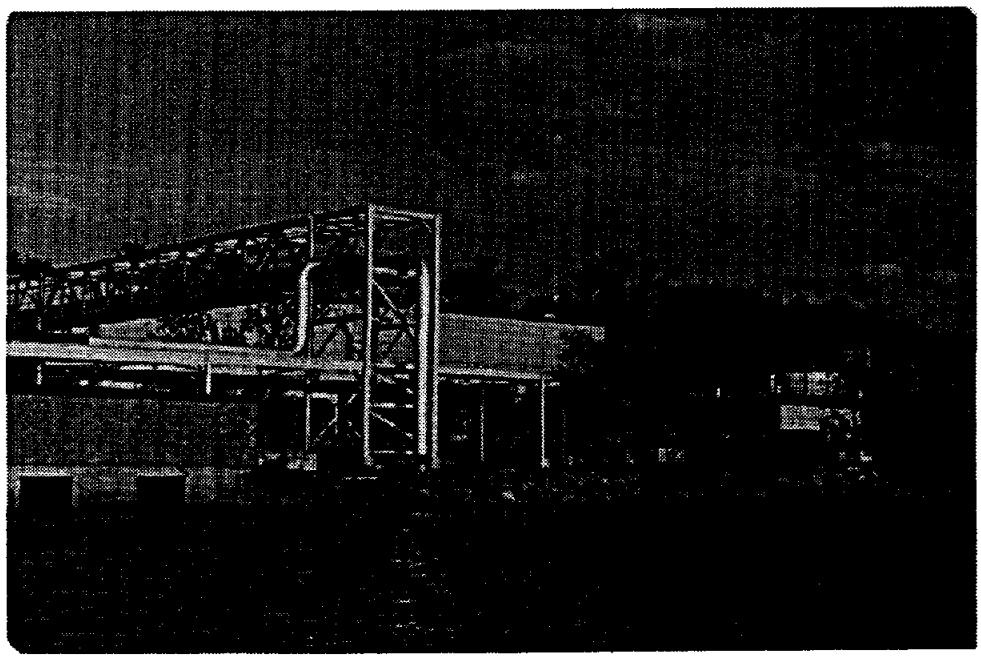

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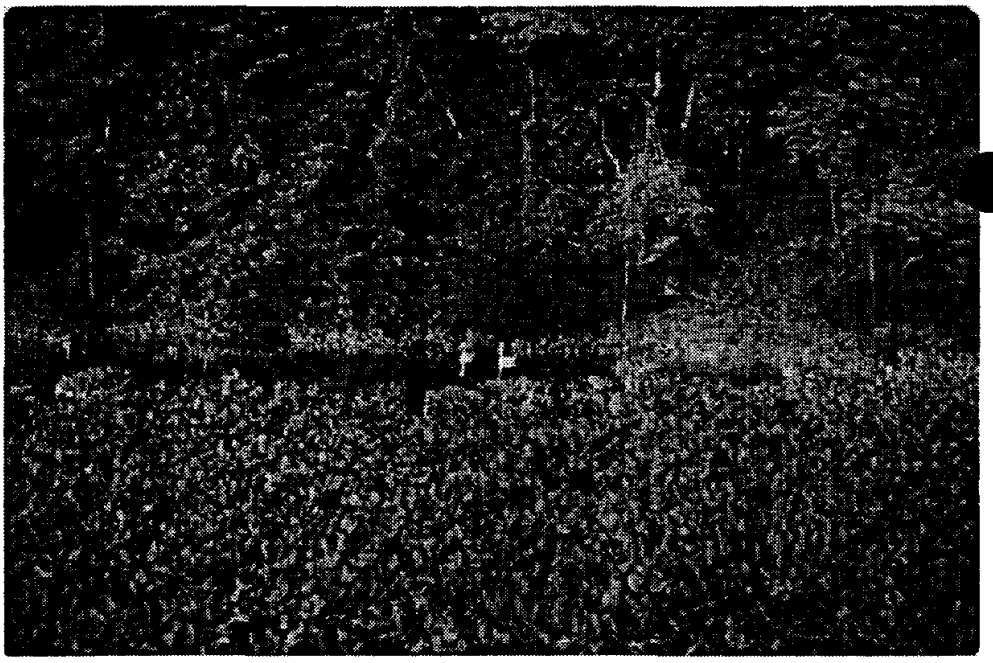

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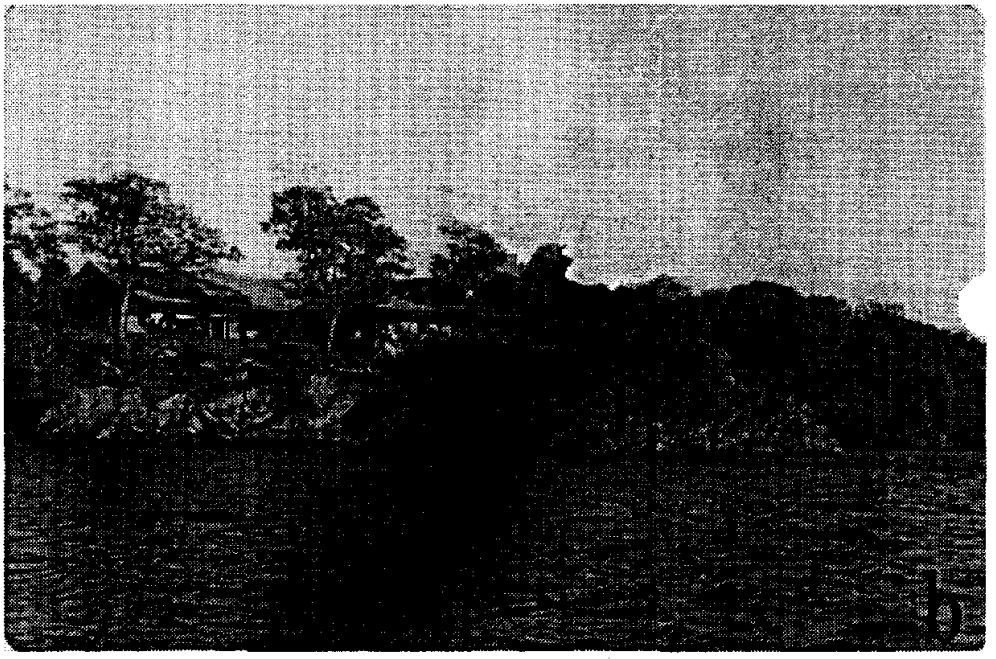

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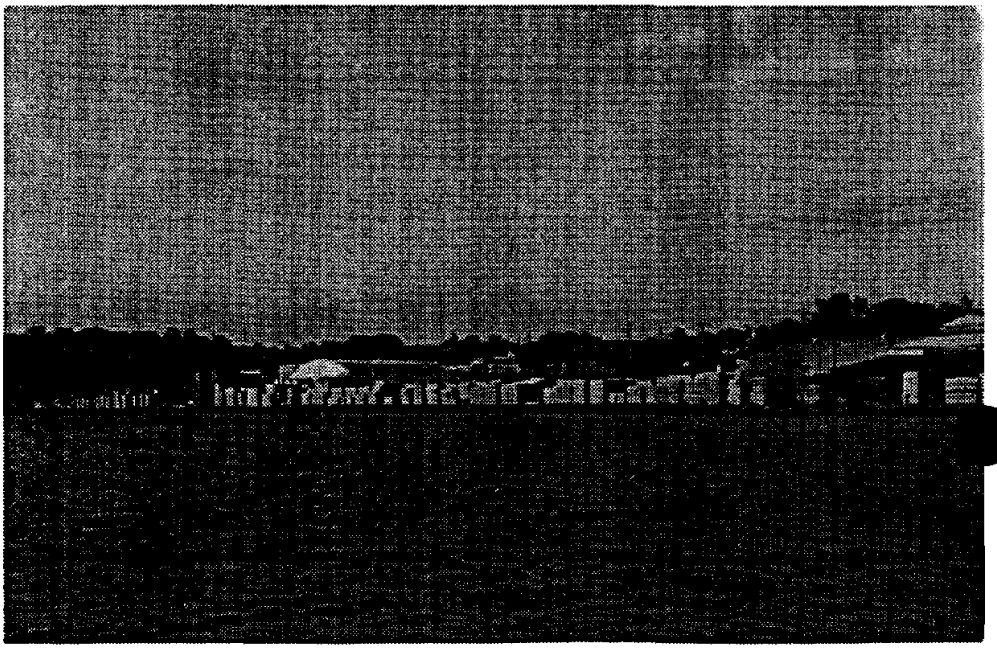

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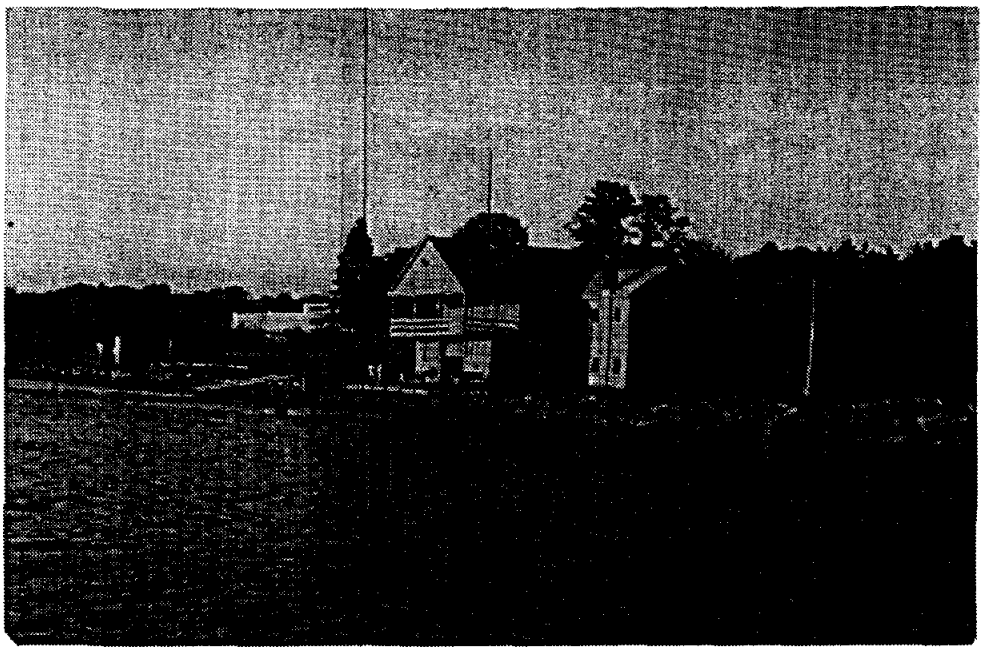

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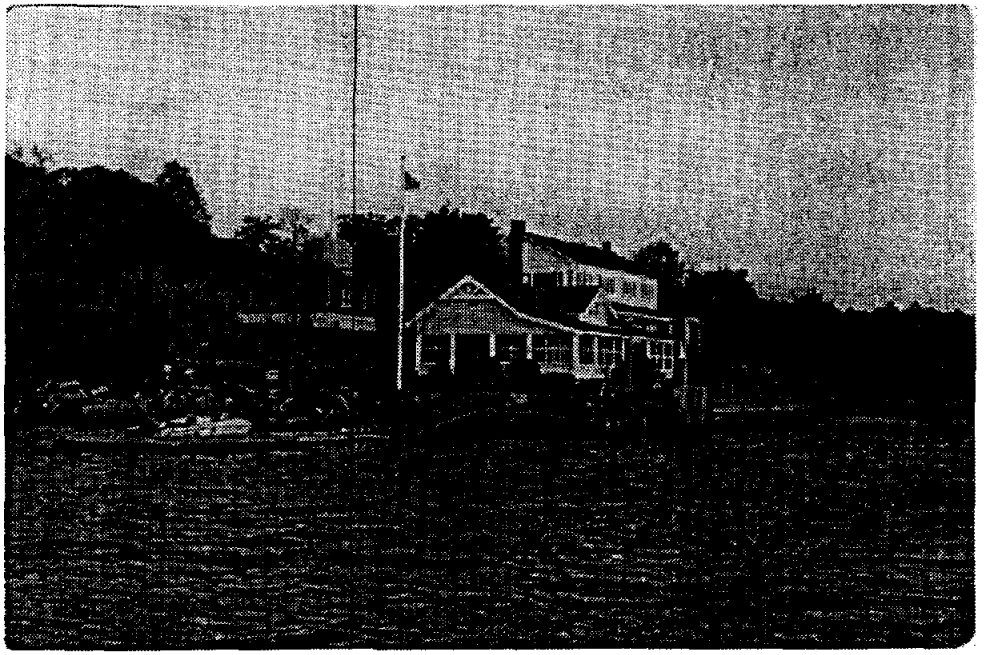


TABLE 1

Soils present within the Town of Poughkeepsie Coastal Management Area; as per 1991 Dutchess County Soils Atlas (sheets 15 & 19) 11/20/97

Soil Unit Name & **Symbol**	Drainage Class	Depth to bedrock (inches)	Seasonal High Water Table Depth (ft.)/Months	Erosion Factors (uppermost 2') K (range) & **T**	Parent Material of soil	Agricultural or wetland comments
Bernardston silt loam; **BeB, BeC, BeD**	Well	>60"	1.5→2.0'; February→April	.28→.37; **3**	Glacial till, deep	**BeB** is a prime agricultural soil
Bernardston-urban land complex **BgB, BgD**	Well	>60" (Bernardston) >10" (urb. ld.)	1.5→2.0'; February→April (Bernardston); >2'; variable (urban land)	.28→.37; **3** (Bernardston) n/a (urban land)	Glacial till, deep (Bernardston) Variable (urban land)	
Canandaigua silt loam, **Ca**	Very Poorly	>60"	1.0 above "soil" to 1.0 below; Nov.-May	.49 **5**	Lacustrine silts and clays	Hydric
Cardigan series (see Dw, Dx & Nw symbols)	Well	20→40"	>6'	.28→.37; **2**	Glacial till over shale	
Copake gravelly silt loam, **CuB, CuE**	Well	>60"	>6'	.24→.32; **3**	Outwash glacio-fluvial materials; alkaline	**CuB** is a prime agricultural soil
Dutchess series (see Dw & Dx symbols)	Well	>60"	>6'	.28→.37; **3**	Glacial till with shale & slate fragments	
Dutchess-Cardigan complex; **DwB, DwC, DwD**			see descriptions above for Dutchess & Cardigan series			
Dutchess-Cardigan-Urban land complex, undulating **DxB**			see descriptions above & below for Dutchess, Cardigan & Urban land			
Farmington-rock outcrop complex **FeE**	Well to SE	10-20" 0" (rock outcrop)	>6' (Farmington)	.24-.32 **2**	Till over limestone bedrock	
Fluvaquents-Udifluvents complex **Ff** Fluvaquents Udifluvents	SP n/a	>40" >40"	0.5' above "soil" to 1.5' below; October →June 2→6'; Nov.→May	.28→.32; **3** n/a; n/a	Floodplain deposits	Hydric (Fluvaquents)
Farmington-Galway complex & Galway-Farmington complexes: Farmington Galway **FcB, GfB, FcC, GfC, FcD, GfD**	W→SE Well	10→20" 20→40"	>6' 1.5→3', March-April	.24→.32; **2** .24→.32; **3**	Till over limestone bedrock	
Fredon silt loam **Fr**	SP	>60"	0.0→1.5'; Oct.-June	.20-.28; **3**	Outwash sand and gravel	

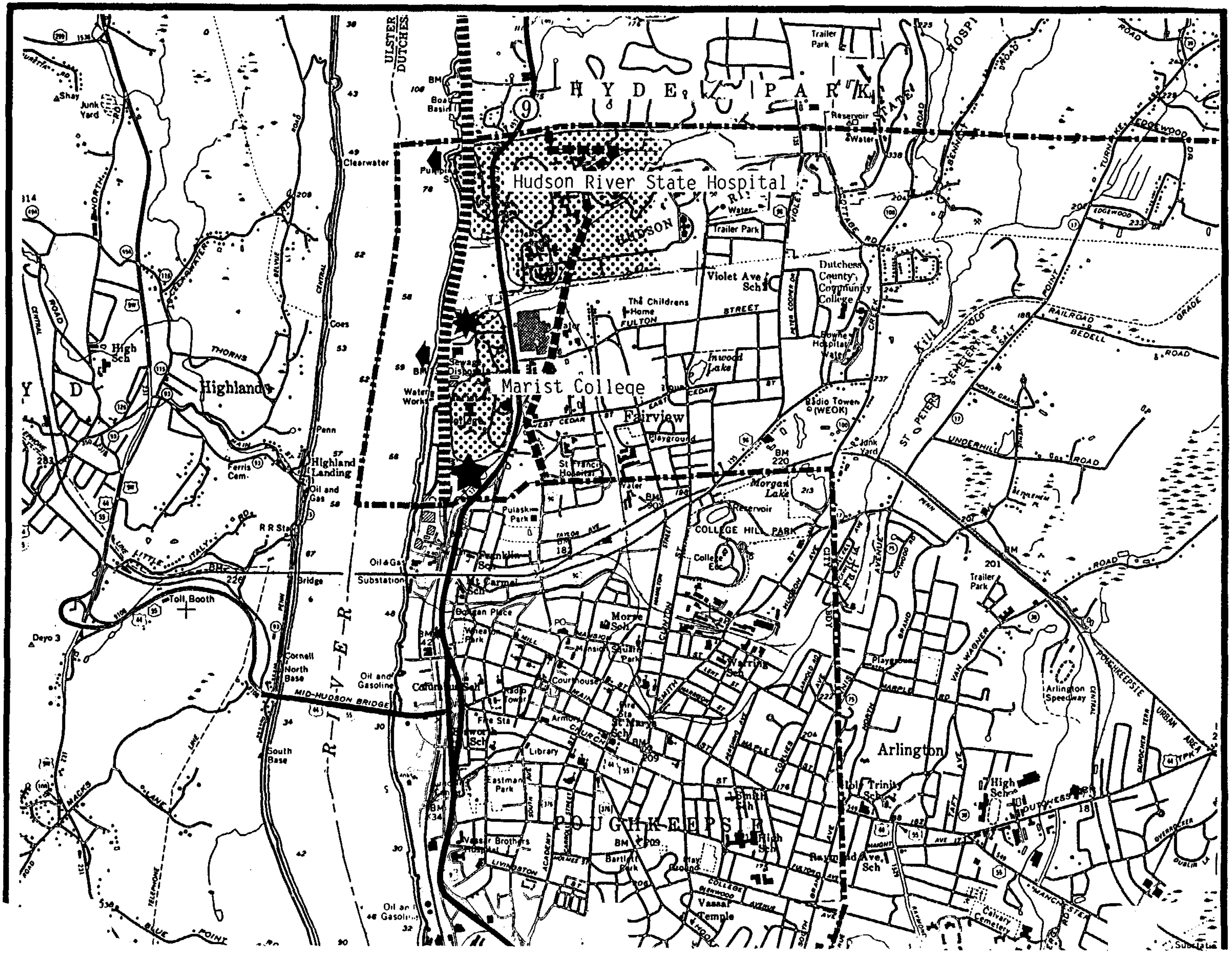
Soil Unit Name & **Symbol**	Drainage Class	Depth to bedrock (inches)	Seasonal High Water Table Depth (ft.)/Months	Erosion Factors (uppermost 2') K (range) & **T**	Parent Material of soil	Agricultural or wetland comments
Haven loam **HeA**	Well	>60"	>6'	.24-.32; **3**	Outwash stratified sand & gravel	Prime agricultural soil
Hoosic gravelly loam; **HsA, HsB, HsE**	Some-what ex-cessive	>60"	>6'	.17-.24; **2-3**	Outwash glacio-fluvial materials	
Hoosic-Urban land complex **HuA, HuB**			see descriptions above & below for Hoosic and Urban land series			
Hydraquents & Medisaprists, ponded **Hy**	n/a	n/a	0'	continuous; n/a	Decomposed organic material	Hydric (by definition)
Knickerbocker fine sandy loam **KrB, KrD**	Some-what ex-cessive	>60"	>6'	.17-.20; **3**	Outwash glacio-fluvial materials	
Knickerbocker-Urban land complex **KuA, KuB**			see descriptions above & below for Knickerbocker & urban land series			
Massena silt loam **MnB**	SP	>60"	0.5-1.5', Nov.-May	.20-.28 **3**	Deep till with rock fragments	
Nassau series	SE	10-20"	>6'	.20-.32; **2**	Till over shale	
Nassau-Car-digan complex; very rocky **NwB, NwC, NwD**			see descriptions above for Cardigan and Nassau series			
Nassau-rock outcrop complex **NxE**			see descriptions above & below for Nassau & rock outcrop.			
Pits, quarry **Pu**	n/a	0"	>6'	n/a; n/a	Local bedrock	
Pittstown silt loam, **PwB, PwC**	MW	>60"	1.5-3.0;	.20-.37 **3**	Deep till	
Raynham silt loam **Ra**	SP	>60"	0.0-2.0; Nov.-May	.49-.64 **3**	Lacustrine silts and clays	
Rock outcrop	n/a	0"	n/a	n/a; n/a	Local bedrock	
Stockbridge-Farmington complex, **SmB** Stockbridge Farmington	 W W-SE	 >60" 10-20"	 >6' >6'	 .24-.37 **3** .24-.32 **2**	 Deep till Shallow till	Stockbridge ("B" slopes) is a prime agricultural soil
Udorthents, smoothed **Ud**	SE-MW	>60"	>3'; Nov-June	.32-.37; **3**	Variable	

Soil Unit Name & **Symbol**	Drainage Class	Depth to bedrock (inches)	Seasonal High Water Table Depth (ft.)/Months	Erosion Factors (uppermost 2') K (range) & **T**	Parent Material of soil	Agricultural or wetland comments
Udorthents, wet substratum **Ue**	SE-MW	>60"	>3'; Nov.-June	.32-.37 3	Variable	
Urban land **Ur**	n/a	>10"	>2'; variable	n/a; n/a	Variable	
Wayland silt loam **Wy**	P-VP	>60"	0.5' above soil to 1.0' below; Nov.-June	.37-.43; 5	Floodplain deposits	Hydric

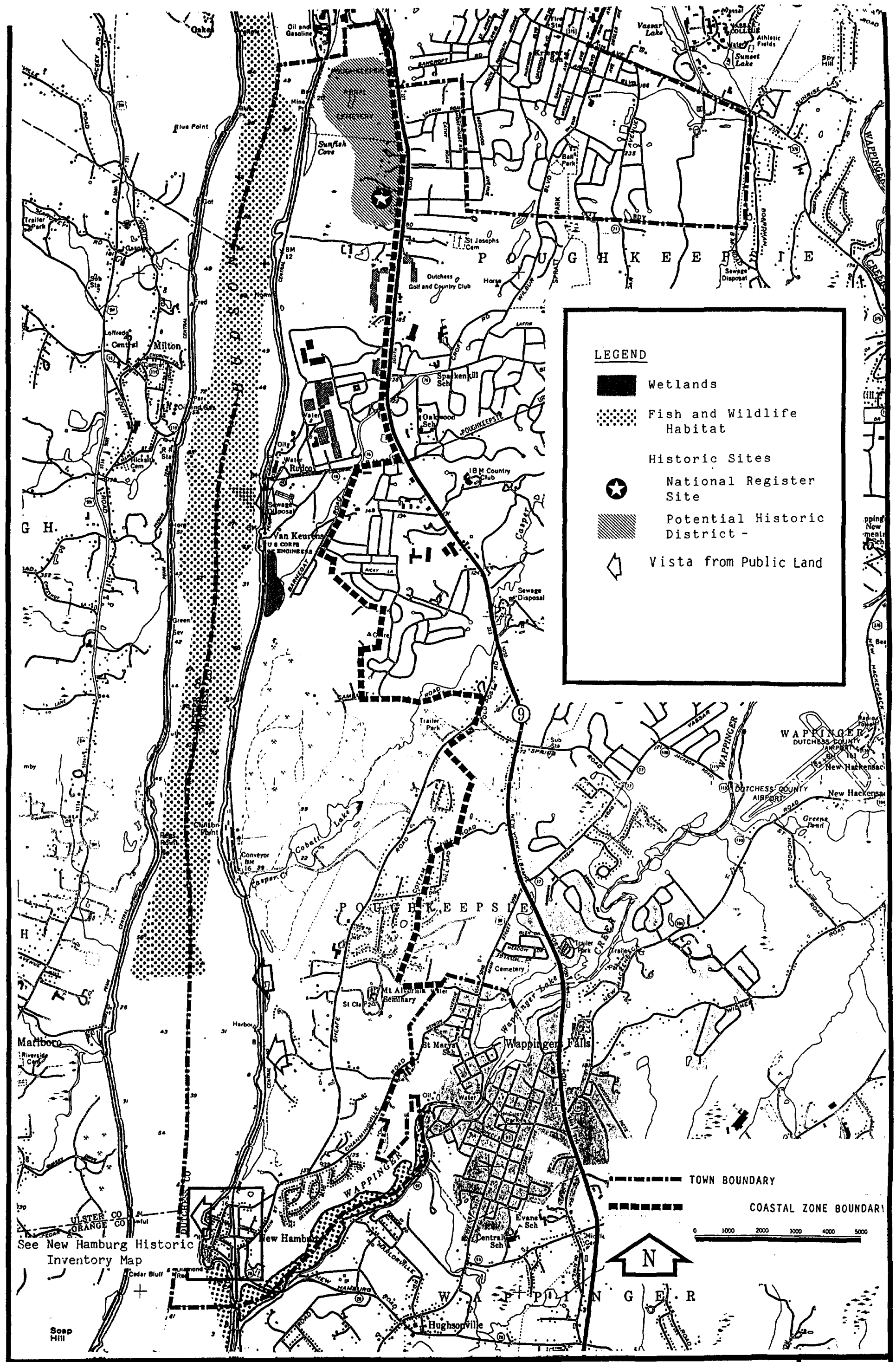
Soil slope categories (3rd letter (CAPITALIZED) in soil code):

A: Nearly Level (0-3%slopes) **C:** Rolling (8-15% slopes) **E:** Steep (25-45% slopes)
B: Undulating (3-8% slopes) **D:** Hilly (15-25% slopes) **F:** Very Steep (>45% slopes)

Where the soil symbol has only two letters, the soil unit is considered to be in the "nearly level" category.



Hudson River State Hospital
Marist College
HYDE PARK
POUGHKEEPSIE
Highland
Fairview
Arlington
Highland Landing
Clearwater
Dutchess County Community College
Violet Ave Sch
The Childrens Home
Inwood Lake
Morgan Lake
COLLEGE HILL PARK
Radio Tower (WEOK)
St Francis Hospital
Pulaski Park
Mt Carmel Sch
MID-HUDSON BRIDGE
Toll Booth
Eastman Park
Vassar Brothers Hospital
Vassar Temple
Arlington Speedway
Trailer Park
ULSTER
DUTCHESS
R—I—V—E—R
Fall Kill



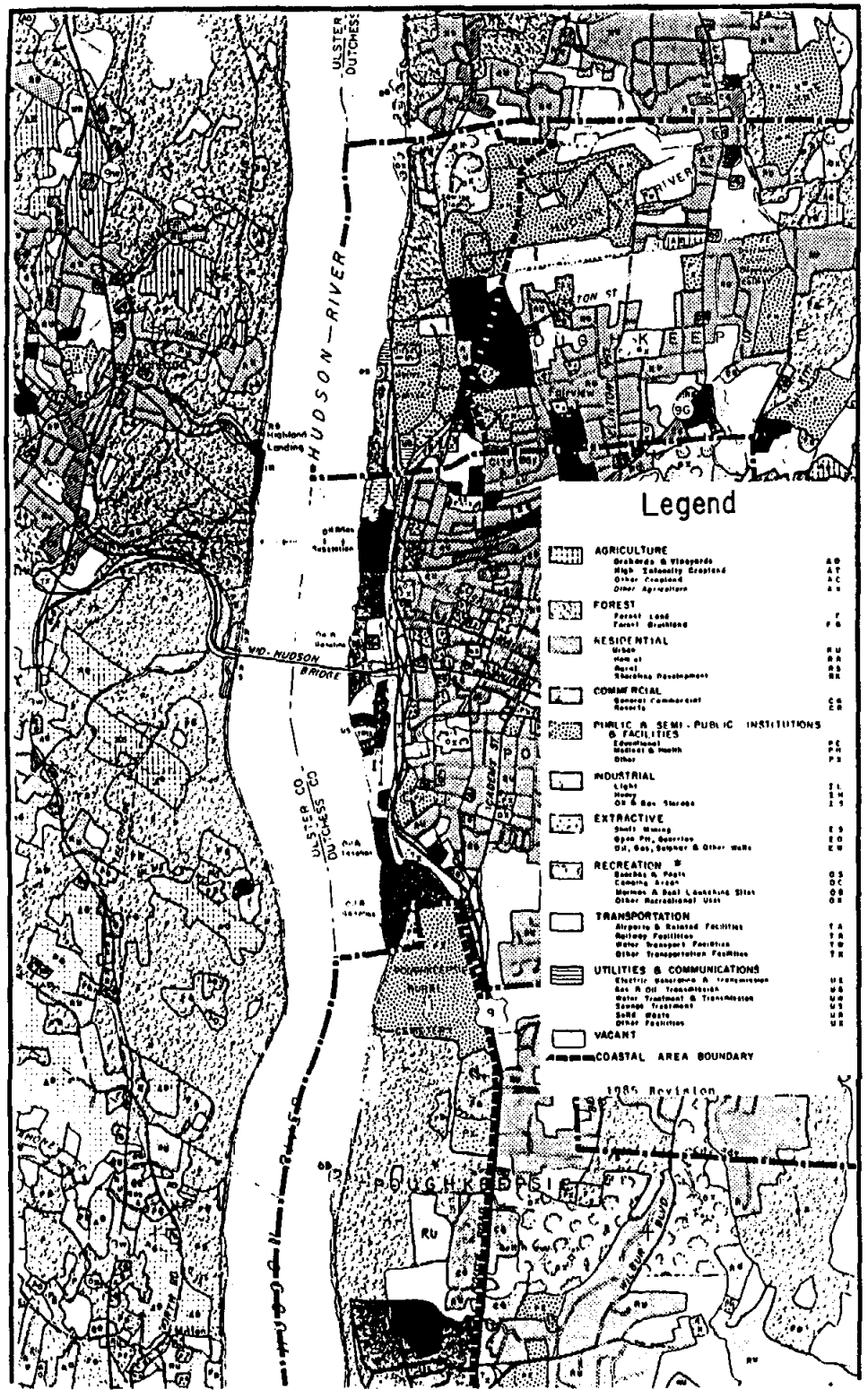
Local Waterfront Revitalization Program

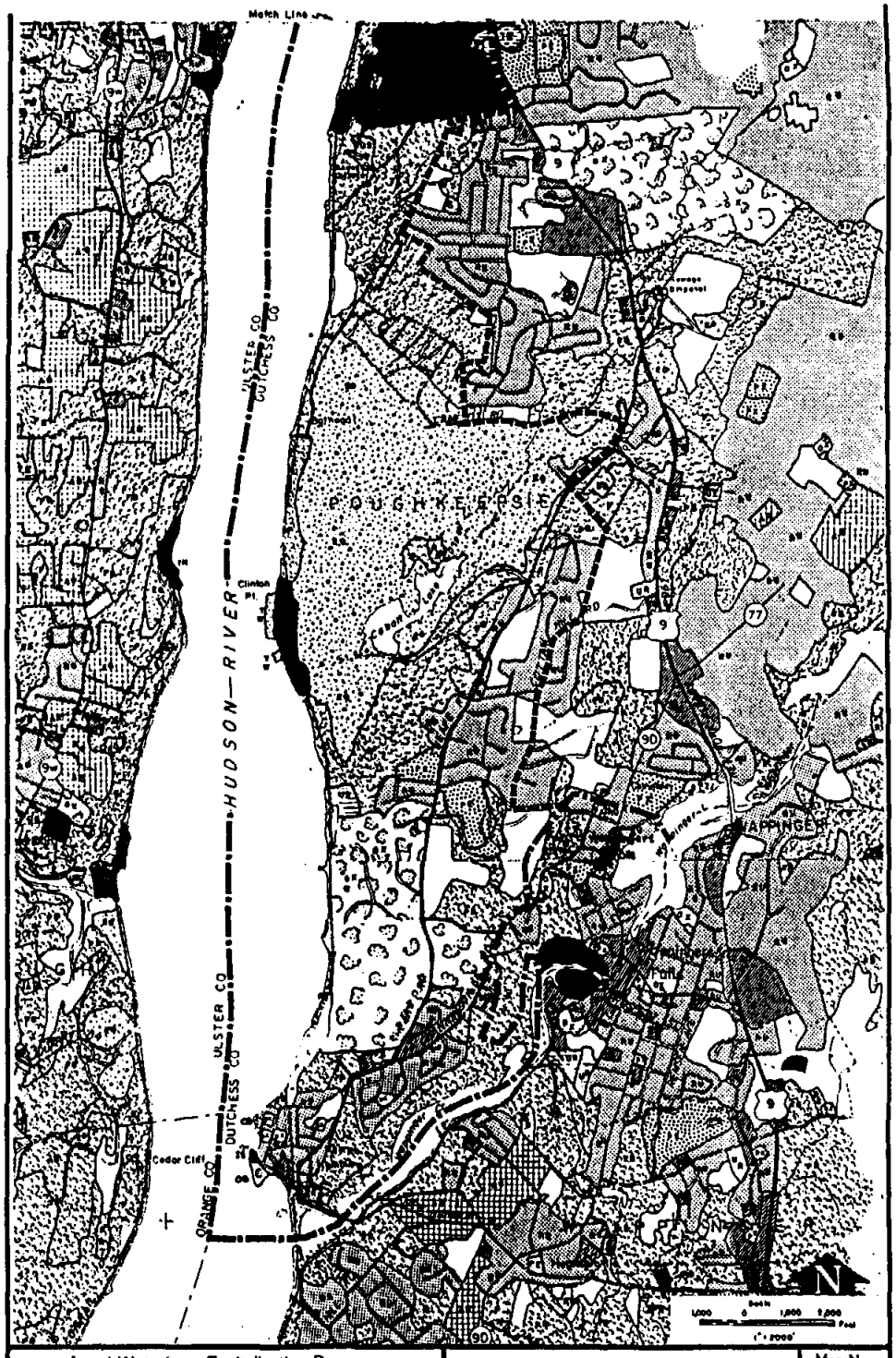
TOWN OF POUGHKEEPSIE

Shuster Associates — Planning Consultants

NATURAL AND CULTURAL FEATURES

Map No. **4**





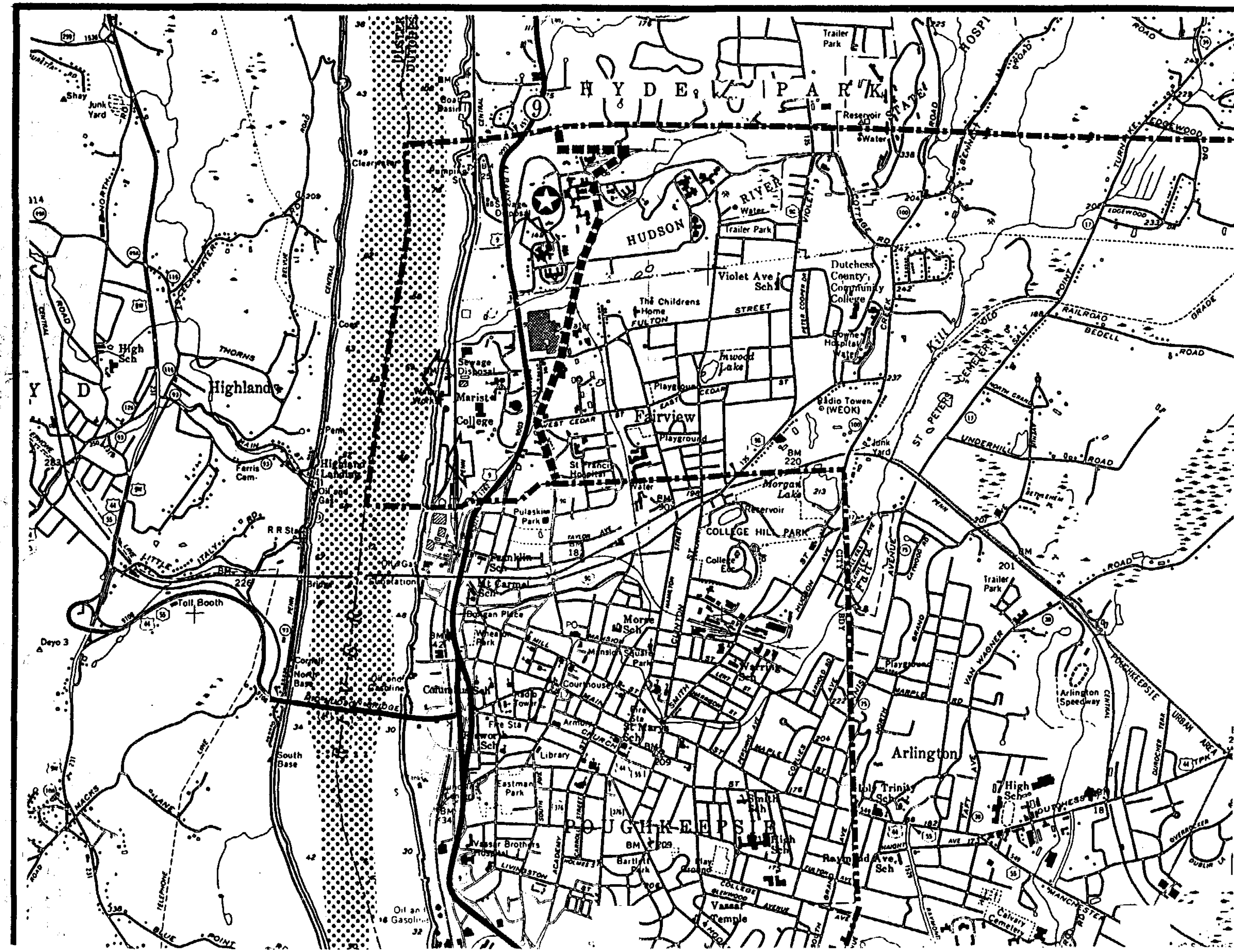
Local Waterfront Revitalization Program

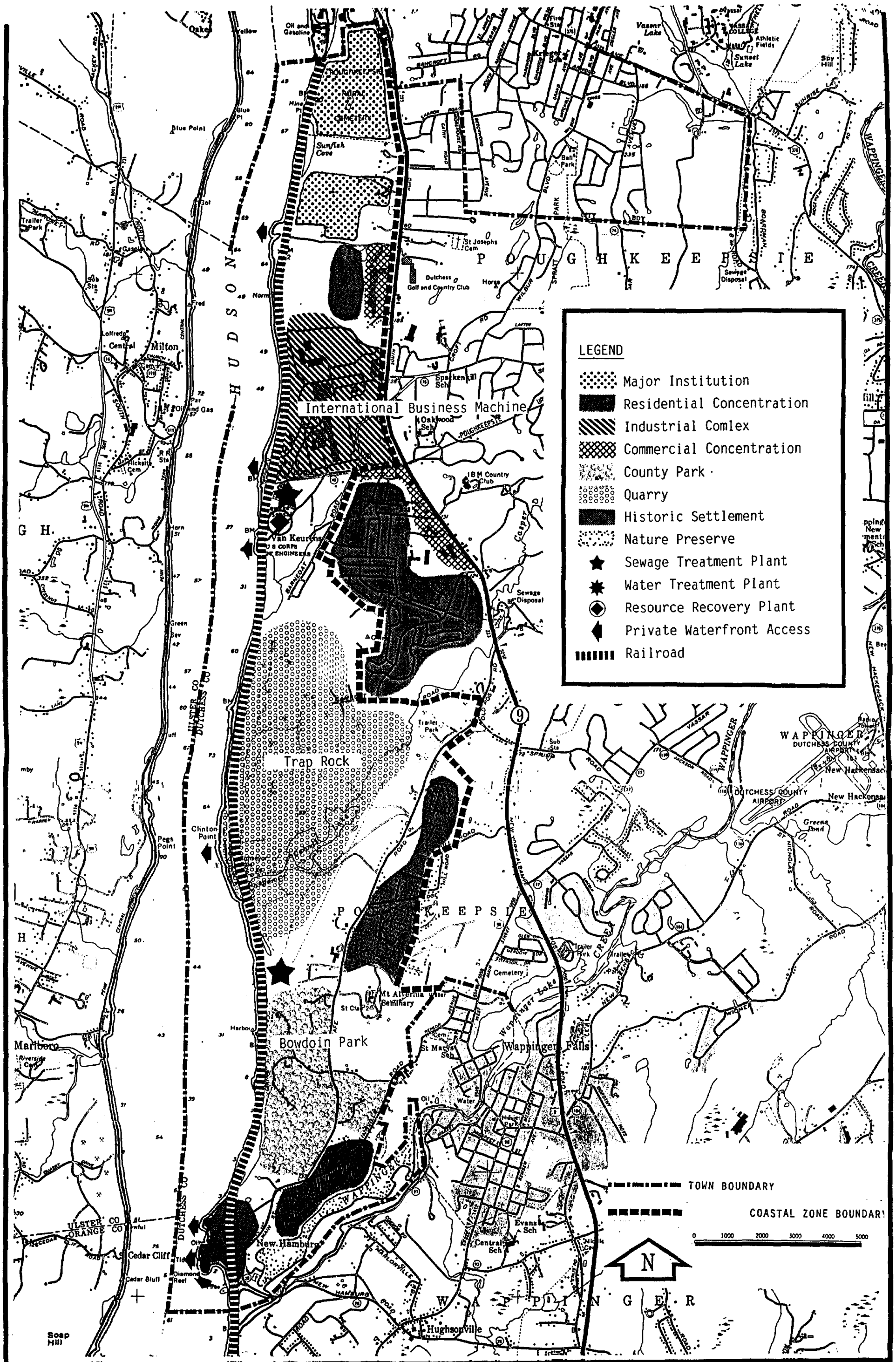
TOWN OF POUGHKEEPSIE

Shuster Associates — Planning Consultants

EXISTING LAND AND WATER USE

Map No. 3A/B


HYDE PARK
Trailer Park
Reservoir
Water
Boat Basin
HUDSON RIVER
Trailer Park
Violet Ave Sch
Dutchess County Community College
The Childrens Home
FULTON STREET
Bowne Hospital
Inwood Lake
Fairview
Playground
Radio Tower (WEOK)
Junk Yard
BM 220
Morgan Lake
Reservoir
COLLEGE HILL PARK
College
Shay
Junk Yard
High Sch
Highland
THORNS
Ferris Cem.
Highland Landing
R R Sta
Sewage Disposal
Marist College
St Francis Hospital
Pulaski Park
Franklin Sch
Mt Carmel Sch
Toll Booth
Deyo 3
Bridge
North Base
South Base
Oil and Gasoline
Columbus Sch
Morse Sch
Mansion Square Park
Courthouse
Armory
St Marys Sch
Fire Sta
Library
Eastman Park
Vassar Brothers Hospital
Bartlett Park
Vassar Temple
POUGHKEEPSIE
High Sch
Raymond Ave Sch
Holy Trinity Sch
Arlington
High Sch
Arlington Speedway
Calvary Cemetery
Trailer Park
Playground
UNDERHILL ROAD
BEDELL ROAD
RAILROAD GRADE
EDGEWOOD DR
ST PETERS CEMETERY
VAN WAGNER
URBAN AREA



Local Waterfront Revitalization Program

TOWN OF POUGHKEEPSIE

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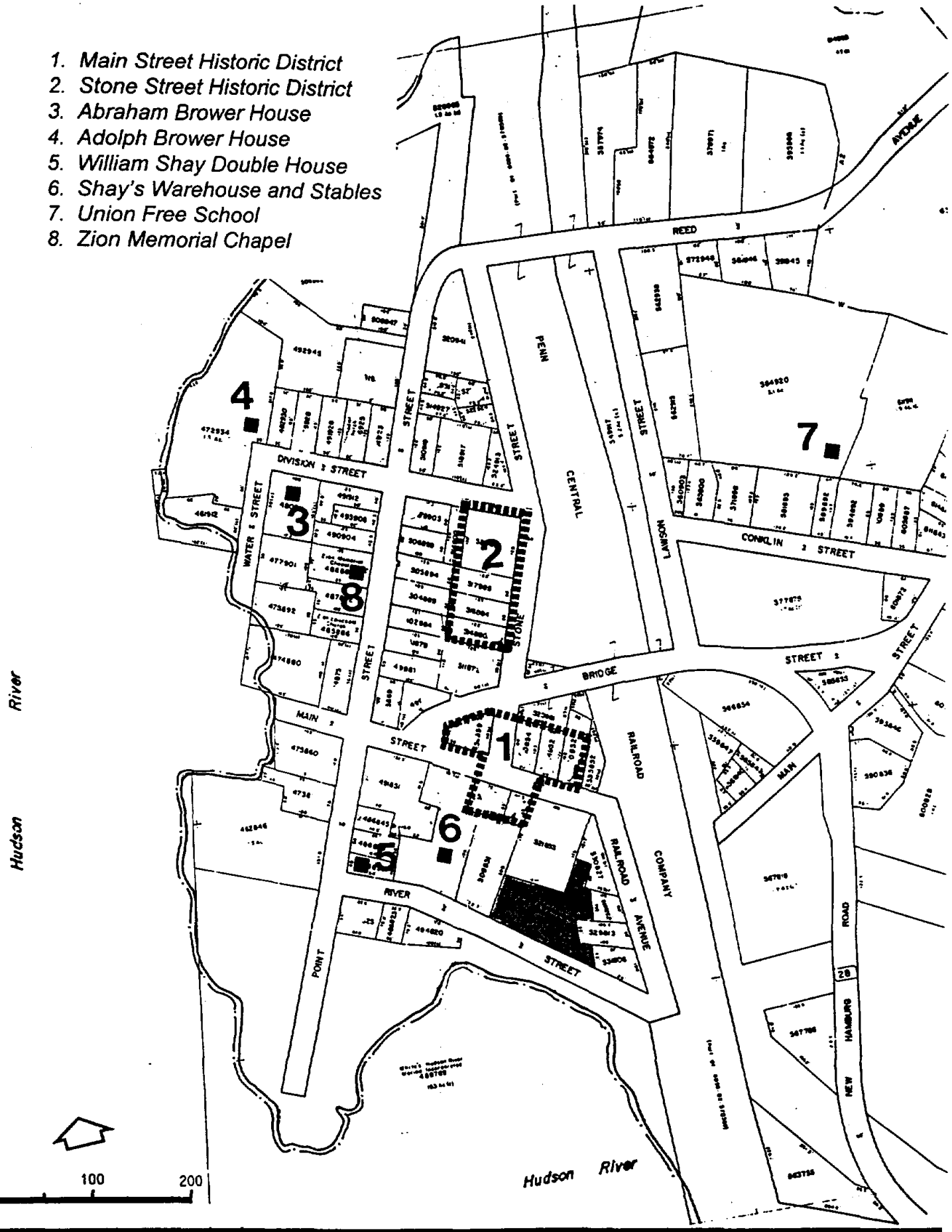
RECONNAISSANCE

Map No. **3**

1. *Main Street Historic District*
2. *Stone Street Historic District*
3. *Abraham Brower House*
4. *Adolph Brower House*
5. *William Shay Double House*
6. *Shay's Warehouse and Stables*
7. *Union Free School*
8. *Zion Memorial Chapel*



Local Waterfront Revitalization Program

TOWN OF POUGHKEEPSIE

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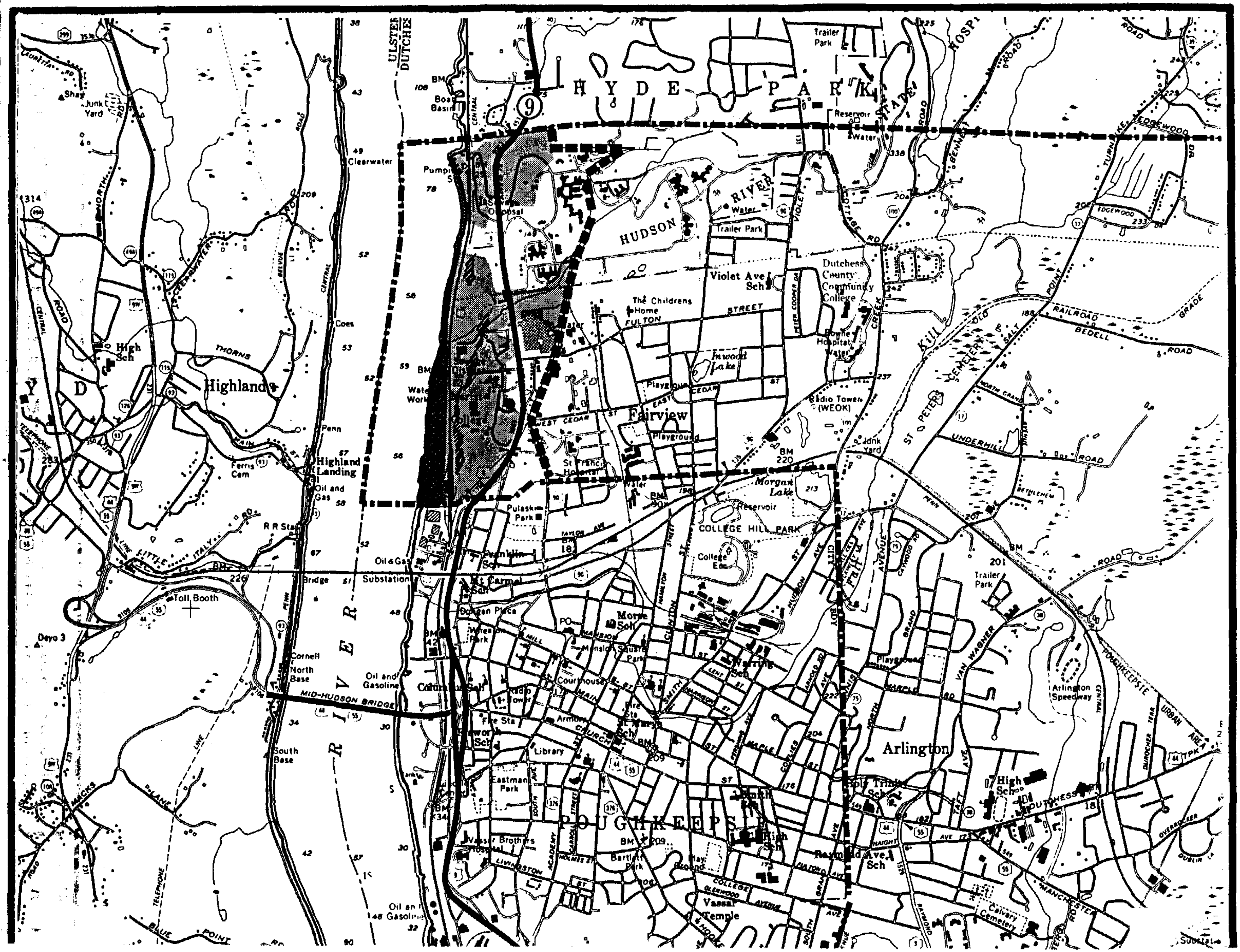
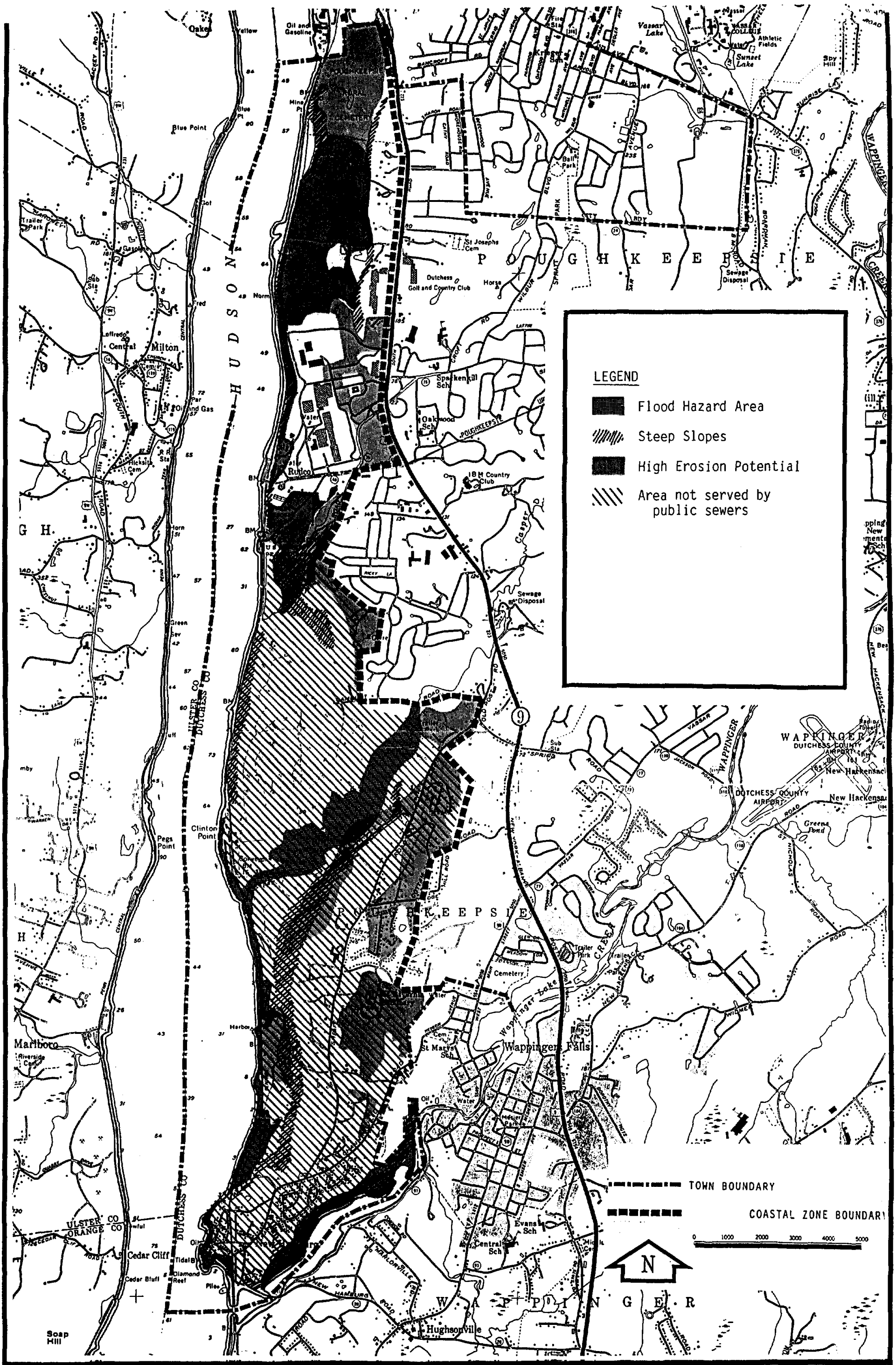
NEW HAMBURG HISTORIC PROPERTIES LISTED ON THE NATIONAL REGISTER

Map No. 4A


HYDE PARK
HUDSON RIVER
POUGHKEEPSIE
Arlington
Fairview
Highland
Highland Landing
MID-HUDSON BRIDGE
ULSTER
DUTCHESS
Dutchess County Community College
Violet Ave Sch
The Childrens Home
Inwood Lake
Morgan Lake
COLLEGE HILL PARK
Radio Tower (WEOK)
St Francis Hospital
Pulaski Park
Vassar Brothers Hospital
Eastman Park
Library
Courthouse
Arlington Speedway
Calvary Cemetery
Toll Booth
Cornell North Base
South Base
Clearwater
Trailer Park
Vassar Temple
CITY BDY



Local Waterfront Revitalization Program

TOWN OF POUGHKEEPSIE

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DEVELOPMENT CONSIDERATIONS

Map No. **5**